	DATA FORM - Northcentral and Northeast Region
Project/Site: Strum Lublin	City/County: Eau Claire Co Sempling Date: 9/23/12
Applicant/Owner: DPC	
	Section, Township, Renge: S5 T25N R5W
*	Local relief (concave, convex, none): Concave Slope (%):
	40 656 Long: -91 0 29.54 Datum: MAD&3
	1 Soil S NW classification:
***************************************	ne of year? Yes 📉 No (If no, explain in Remarks.)
Are Vegetation N Soil N or Hydrology N natu	ificantly disturbed? Are "Normal Circumstances" present? Yes
	owing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separa	
at Structure 47 Photo # 104	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	surface Soli Cracks (B6)
Surface Water (A1) Water-	Stained Leaves (B9) Drainage Patterns (B10)
<del></del>	Fauna (B13) Moss Trim Lines (B16)
<u> </u>	eposits (B15) Dry-Season Water Table (C2)
	en Sulfide Odor (C1) Crayfish Burrows (C8)
	ed Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	ce of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
	uck Surface (C7) Shallow Aquitard (D3)  Explain in Remarks) Microtopographic Relief (D4)
Spersely Vegetated Concave Surface (88)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth	(inches):
Water Table Present? Yes No Depth	(inches):
Saturation Present? Yes No Depth (includes capillary fringe)	(inches): Wetland Hydrology Present? Yes No _X
Describe Recorded Data (stream gauge, monitoring well, aer	ial photos, previous inspections), if available:
Remarks:	
Remarks.	

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Ptot size:)	% Cover	Species? Status	Number of Dominant Species
1.			That Are OBL, FACW, or FAC:(A)
2			
			Total Number of Dominant Species Across All Strata: (B)
3			
4.			Percent of Dominant Species
5.			That Are OBL, FACW, or FAC: (A/B)
6			
I .			Prevalence Index worksheet:
7,			Total % Cover of Multiply by:
	****	= Total Cover	OBL species X1 =
Sapting/Shrub Stratum (Plot size:)			FACW species x 2 =
1			FAC species x3 =
			FACU species x 4 =
2		***************************************	UPL species x 5 =
3.	-		Column Totals: (A) (B)
4,			
5.			Prevalence index = B/A =
1			Hydrophytic Vacatating Indicator:
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. Phalais awad acces	100	FACL	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2.			Problematic Hydrophytic Vegetation¹ (Explain)
3,			Indicators of hydric soil and wetland hydrology must
4.	_		be present, unless disturbed or problematic.
S			Pulling of North an Oleran
1			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.			or sale, and a cody planes lass man of all it loss.
12.			Woody vines - All woody vines greater than 3,26 ft in
	160	= Total Cover	height,
Woody Vine Stratum (Plot size:)			
1,			
2.			
3.			Hydrophylic
			Vegetation
4.	-		Present? Yes No
		= Total Cover	<u>'</u>
Remarks: (Include photo numbers here or on a separate	sheet.]		

Profile Desc	cription: (Describe	to the den	th needed to docur	nent the l	Indicator	or confirm	the absence of ind	icators.)
Depth	Matrix	`	Redo	x Feature	5			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type	Loc-		Remarks
0-2	2.54 6/3	100			-		Silt loan	
2-12	2.54 3/1	98	104R 314	2_		Pr	S. Hlown	Sallenge at 4"
12-16	2.54 5/1	918	104R3/6	2_		<u> PL</u>	Snoly lour	
16-20	2.543/1	97	104R3/6	3	_	PL	Clayloan	
	<del></del>	* *************************************						
	**************************************	-	property of the second second	-	-		************	
		** ************************************			-	***************************************	***************************************	
								Make 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
						<del></del>		
-						***************************************	Rangesterfullation and equivalent description description and experimental experiments and experimental experiments and experiments and experiments and experiments are also become a construction of the experiments and experiments are also become a construction of the experiments are also become	
***************************************	***************************************		***************************************	-		***************************************	***************************************	
						***************************************		
¹Type: C=C	concentration, D=Dep	oletion, RM	=Reduced Matrix, M	S=Masked	d Sand Gr	ains	<sup>2</sup> Location: PL=	Pore Lining, M≕Matrix.
Hydric Soll			THE RESIDENCE OF THE PROPERTY				Indicators for Pr	oblematic Hydric Solis <sup>a</sup> :
Histosol	• .		Polyvalue Belo		(S8) (LRI	₹R,		110) (LRR K, L, MLRA 1498)
	pipedon (A2) listic (A3)		MLRA 1498 Thin Dark Surfi	•	LRR R. MI	RA 1498		Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky I				. —	(S7) (LRR K, L, M)
	d Layers (A5)		Loamy Gleyed		2)			low Surface (\$8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	æ (A11)	Depleted Matrix Redox Dark Su		1			rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, R)
	Mucky Mineral (\$1)		Depleted Dark					odplain Soils (F19) (MLRA 1498)
	Gleyed Matrix (S4)		Redox Depress				Mesic Spotio	(TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							Rateriai (F21)
. —	d Matrix (86) orface (87) (LRR R, F	MLRA 1491	B)				-	r Dark Surface (TF12) in in Remarks)
								-
	d hydrophytic vegeta Layer (If observed):		elland hydrology mu	st be pres	ent, unles:	s disturbed	l or problematic.	
Type:	rayer (it onserved):	•						1
	oches):						Hydric Soil Prese	nt? Yes No
Remarks			<del>entaturia disente in india.</del> Candide na disente a salamento in anno singui estre accione con accioni sindia del 1844 con fingui.		Same Commission Commis	011 <u>111111111111111111111111111111</u>		

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	TA FORM – Northcentral and Northeast Region
Project/site: Strum Lublin	city/County: <u>Eau Claire Co</u> sempling Date: <u>9/23/15</u>
Applicant/Owner: DPC	State: W.T. Sampling Point: 07201
	Section, Township, Range: 54 T250 R5W
	ocal reflef (concave, convex, none):Stope (%):
	0 6.50 Long: 91 0 4.72 Datum: NAD 83
Soll Map Unit Name: Elm lake locerny sand	
Are climatic / hydrologic conditions on the site typical for this time of	
	tly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation N. Soil N. or Hydrology N. naturally p	
	ng sampling point locations, transects, important features, etc.
	Is the Sampled Area
Hydrophytic Vegetation Present? Yes X No Yes X N	- I X
Hydric Soil Present? Yes X No	
Remarks: (Explain alternative procedures here or in a separate rep	
( Language L	
D	
Photo # 106,107	
HYDROLOGY	
	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply	
	ed Leaves (B9) Drainage Patterns (B10) na (B13) Moss Trim Lines (B16)
High Water Table (A2)  Aquatic Faun  Saturation (A3)  Mari Deposit	
Water Marks (B1) Hydrogen Su	
	izospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	Reduced Iron (C4) Stunted or Stressed Plants (D1)
	Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Si	urface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain	in in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inches	7
Water Table Present? Yes No X Depth (Inch-	
Saturation Present? Yes X No Depth (inche	es): Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks:	

Sapling/Strub Stratum (Plot size: \_\_\_\_\_)

Herb Stratum (Plot size: \_\_\_\_\_)

3. Conex stricta

1. Rubus hispidus

2. Glyceria consdenses

4. Tarex UNIPMOIDER

5. Salidano giogniam 5

6. Scirpus atrovirens 15 N

30

20

N

Tree Stratum (Plot size: \_\_\_\_\_)

Sampling Point: 07201 Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: \_\_\_\_\_(A) Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL. FACW, or FAC: \_\_\_\_ (A/B) 5. Prevalence Index worksheet: Total % Cover of Multiply by: OBL species x1 = \_\_\_\_\_ = Total Cover FACW species \_\_\_\_\_ x 2 = \_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ UPL species \_\_\_\_\_ x 5 = \_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B) Prevalence Index = B/A = \_\_\_\_ 5. Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation \_\_\_ 2 - Dominance Test is >50% = Total Cover 3 - Prevalence Index is ≤3.01 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting FACHI data in Remarks or on a separate sheet) OBL Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) ORI Indicators of hydric soil and welland hydrology must OBL be present, unless disturbed or problematic. FACH Definitions of Vegetation Strata: OBL 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. 11. Woody vines - All woody vines greater than 3.26 ft in 9 0 = Total Cover Hydrophylic Vegetation Yes No Present? = Total Cover

emarks:	(include phote	onumbers here	or or	1 a	separate	sneet.

Woody Vine Stratum (Plot size: \_\_\_\_\_)

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains   Clay   Log v
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains   Clay to the standard of the s
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains   Cloud Log Ms
Type: C=Concentration, D=Depletion, RM=Reduced Metrix, MS=Masked Send Grains   Clacetion: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Polyvalue Below Surface (S8) (LRR R, L) Coast Prairie Redox (A16) (LRR K, L, R)  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, L) Coast Prairie Redox (A16) (LRR K, L, R)  Histo (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) Som Mucky Peat or Feat (S3) (LRR K, L, R)  Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L)  Thick Dark Surface (A12) Redox Dark Surface (F5) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Predmont Floodplain Scris (F19) (MLRA 1498)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains  Hydric Soll Indicators:  Historic Soll Indicators:  Historic Epipedon (A2)  Black Historic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thin Dark Surface (F5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Thin Dark Surface (A12)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (A12)  Redox Dark Surface (F5)  Thin Dark Surface (A12)  Redox Dark Surface (F7)  Predmont Floodplain Sols (F19) (MLRR 1498)
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B)
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B)
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B)
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B)
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Pledmont Floodplain Soils (F19) (MLRA 149B)
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators for Problematic Hydric Soils <sup>3</sup> :  Indicators for Problematic Hydric Foils  Indicators for Indicators for Problematic Files  Indicators for Indicators for Polyal (RR K, L, R)  Indicators for Indicators for Indicators for Indicators for Indicators for Indicators for Indicators f
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators for Problematic Hydric Soils <sup>3</sup> :  Indicators for Problematic Hydric Foils  Indicators for Indicators for Problematic Files  Indicators for Indicators for Polyal (RR K, L, R)  Indicators for Indicators for Indicators for Indicators for Indicators for Indicators for Indicators f
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators for Problematic Hydric Soils <sup>3</sup> :  Indicators for Problematic Hydric Foils  Indicators for Indicators for Problematic Files  Indicators for Indicators for Polyal (RR K, L, R)  Indicators for Indicators for Indicators for Indicators for Indicators for Indicators for Indicators f
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators for Problematic Hydric Soils <sup>3</sup> :  Indicators for Problematic Hydric Foils  Indicators for Indicators for Problematic Files  Indicators for Indicators for Polyal (RR K, L, R)  Indicators for Indicators for Indicators for Indicators for Indicators for Indicators for Indicators f
Hydric Soil Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Feat (S3) (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)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators for Problematic Hydric Soils <sup>3</sup> :  Indicators for Problematic Hydric Foils  Indicators for Indicators for Problematic Files  Indicators for Indicators for Polyal (RR K, L, R)  Indicators for Indicators for Indicators for Indicators for Indicators for Indicators for Indicators f
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Polyvalue Below Surface (S8) (LRR R, LRR R, L) Polyvalue Below Surface (S8) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thick Dark Surface (A12) Sendy Mucky Mineral (S1) Polyvalue Below Surface (S8) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Pledmont Floodplain Sois (F19) (MLRA 1498)
Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratifled Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  MLRA 149B)  Coast Prairie Redox (A16) (LRR K, L, R)  5 cm Mucky Peat or Feat (S3) (LRR K, L, R)  Dark Surface (S7) (LRR K, L, M)  Dark Surface (S7) (LRR K, L, M)  Polyvalue Below Surface (S8) (LRR K, L)  Thick Dark Surface (A11)  Redox Dark Surface (F6)  Iron-Manganese Masses (F12) (LRR K, L, R)  Depleted Dark Surface (F7)  Pledmont Floodplain Sois (F19) (MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) 5 cm Mucky Peat or Feat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)  Stratifled 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)  Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Pledmont Floodplain Sols (F19) (MLRA 1498)
Stratified Layers (A5)      Loamy Gleyed Matrix (F2)      Polyvalue Below Surface (S8) (LRR K, L)        Depleted Below Dark Surface (A11)
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)  Thin Dark Surface (S9) (LRR K, L)  Iron-Manganese Masses (F12) (LRR K, L, R)  Piedmont Floodplain Soils (F19) (MLRA 1498)
Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Mucky Mineral (S1)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)  Fledmont Floodplain Soils (F19) (MLRA 1498)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Predmont Floodplain Soils (F19) (MLRA 1498)
Sandy Gleved Matrix (S4) Redox Decressions (F8) Mesic Sporic (TA6) (MLRA 144A 145, 149B)
Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B)  — Cther (Explain in Remarks)
•
<sup>3</sup> Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):
Type:
Death (inches): Hydric Soil Present? Yes X No
Remarks:

	RM – Northcentral and Northeast Region
Projectisite: Strum Lublin Chyc	county: <u>Fau Claire (o</u> sempling Date: 9/23/12
Annilina ntill umar: DD	State: hit Sampling Print: (772D 2
Investigator(s): KP+ AJ Secti	on, Township, Range: 54 TQ5N R5W
Landform (hillslope, terrace, etc.): hillslope Local ref	ief (concave convex none): \( \int \delta \sigma \) \( \sigma \sigma \) Sicce (%): \( \frac{2}{3} \)
Subregion (LRR or MLRA): LRR K Let: 44 40 65	5 Long: 91 0 5.26 Datum: NAD 8:
SON Map Unit Name: Elm Laice loamy sand	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	res X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID:
Structure 52 Photo 105	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soli Cracks (B6)
Surface Water (A1) Water-Stained Leave	
High Water Table (A2) Aquatic Fauna (B13)	
Seturation (A3) Marl Deposits (B15)	<del></del>
Water Marks (B1) Hydrogen Sulfide Oc	
<del></del>	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Fresence of Reduce	d Iron (C4) Stunted or Stressed Plants (D1) on in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface ( Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	<del>_</del>
Spersely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inches):	
Water Table Present? Yes No Depth (Inches):	Marie Caracteristic Control of Co
Saturation Present? Yes No Depth (Inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pri	evious inspections), if available:
Remarks;	

		Dominant Indicato	I Dominance jest worksneet:
Tree Stratum (Plot size:)	% Cover S	Species? Status	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: 33 (A/B)
5			- 1101710 001,17101, 01710.
6			Prevalence Index worksheet:
7			Total % Cover of Multiply by:
	=	Total Cover	OBL species O x1 =
Sapling/Shrub Stratum (Plot size:)			FACW species
1. Pinus Stiabus	2	N FACI	
		Y FACE	* 1 - 1 - 1 - 20 1
2 Rubus Hispidus			- IIDI eneriae () v.5 - ()
3. Botula Nigra		- FILL	Column Totals: 90 (A) 250 (B)
4. Prunks Donalvanica	5	4. FALU	
5 Pinus Danksiana	1	N FACU	Prevalence Index = B/A = 3,88
			Hydrophytic Vegetation Indicators:
6, _~			1 - Rapid Test for Hydrophytic Vegetation
7			2 - Dominance Test is >50%
	13=	Total Cover	3 - Prevalence Index is ≤3.01
Herb Stratum (Plot size:)		U.	
1. Pace Compressa	75	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Botypus vivginianus			
3.			Indicators of hydric soil and welland hydrology must
4.	- <del></del>		be present, unless disturbed or problematic.
5			- Definitions of Vegetation Strata:
6.			<u>-</u>
7.			Tree – Woody plants 3 in, (7,6 cm) or more in diameter at breast height (DBH), regardless of height.
1			
8.			- Sapling/shrub - Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10.		<del></del>	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.
	=	1041 50451	
Woody Vine Stratum (Plot size:)			
	-		•••
2	-		_
3			Hydrophylic
4			Vegetation
	-	Table	Present? Yes No
Comparison (Include whether symptoms have as an appropriate		Total Cover	
Remarks: (Include photo numbers here or on a separate	snect.)		
		_	

Sampling Point 07202

#### SOIL

Profile Desc	cription: (Describe	to the dep	th needed to docum	ent the ir	odicator	or confirm	the absence of inc	licators.)
Depth (inches)	Matrix Color (moist)	%		Features %		Loc*	Texture	Remarks
1-3	10463/1	100	COO IIIO 317				Sandyloam	nelligin?
3 - 10	10486/2	100	***************************************	***************************************		***************************************	loans sand	
10-12	7.5R 3/4				<del></del>	•••••		
		100			***************************************		Sandalvan Sandy loam	
13-19	1048 4/6	100					DA-DY IDAM	
*******								
<del></del>						***************************************	**************************************	
	<u></u>							
			3					
***************************************		-			*********	4	***************************************	
***************************************	<del>geroonesta eronasta eronasta eronasta ero</del>	* *************************************		***************************************	brooks were well as the	Manufalla Malana mananananananananananananananananana	Malamona and Assessment Assessmen	
	***************************************							
17		latina Cit	- Dankson d Making 180				2) and an of a	One tising the Matrix
Hydric Soil		letion, KM	=Reduced Metrix, MS	=masked	Sana Gr	<b>B</b> IO3		Pore Lining, M≃Matrix. roblematic Hydric Solis²:
Histosol			Polyvalue Below	Surface (	(S8) (LRI	RR,	2 cm Muck (	A10) (LRR K, L, MLRA 1496)
	pipedon (A2)		MLRA 1498)		80 D M	D A 4400	********	Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surface Loamy Mucky M					Peat or Peat (S3) (LRR K, L, R) (S7) (LRR K, L, M)
	d Layers (A5)		Loamy Gleyed N	Aetrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	c (A11)	Depleted Matrix Redox Dark Sur					urface (S9) (LRR K, L) lese Messes (F12) (LRR K, L, R)
	Jucky Mineral (\$1)		Depleted Dark S		7)			ocdplain Soils (F19) (MLRA 1498)
	Sleyed Matrix (S4)		Redox Depressi	ons (F8)			_	c (TA6) (MLRA 144A, 145, 149B)
	Redox (S5) I Matrix (S6)							Material (F21) v Derk Surface (TF12)
	rface (S7) (LRR R, I	ALRA 149	B)					in in Remarks)
			etland hydrology musi	be prese	nt, uni <del>es</del> :	s disturbed	or problematic.	
	Layer (if observed):	:						,
Type:							Hydric Soll Press	ent? YesNo
Remarks:	ches):			renematikes (kronopalako) irrokesak			1130110 00111103	
remains.								

# Strum-Lublin 69kV (N-3) Transmission Line Rebuild Project Phase I: Strum Tap to Willard Tap



DIRECTION	FEATURE ID	072D2	DATE
South	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/23/2012

**074D** 

WETLAND DETERMINATION D	DATA FORM - Northcentral and Northeast Region
Project/Site: Strum Lublin	City/County: Fan Claire (a Sampling Date: 9/23/15
Applicant/Owner: DP C	State: W \ Sampling Point: 07401
	Section, Township, Range: S4 T25N R5W
	Local reflet (concave, convex, none): ( d n C a U c Stope (%)): /
Subregion (LPR & MLRA): LRL K Let: 44	40 6.76 Long: -90 59 29,00 Datum: NAD 83
Soil Map Unit Name: Alluvial land	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time	
Are Vagetation	
Are Vegetation N. Soil N. or Hydrology N. natura	
Are Vegetation, Soil/\(\frac{1}{2}\), or Hydrology/\(\frac{1}{2}\) natura	lly problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	wing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Yes X No Yes X No	i udthin a Watiand? Vac /\ Na
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate	
Photo # 108	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	pply) Surface Soil Cracks (B6)
	ained Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic F	- · · · · · · · · · · · · · · · · · · ·
T	osits (B15) Dry-Season Water Table (C2)
	Suffide Odor (C1) Crayfish Burrows (C8)  Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	on Reduction in Titled Soils (C6) Geomorphic Position (D2)
	k Surface (C7) Shallow Aquitard (D3)
	plain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (II	
Water Table Present? Yes No _X Depth (in	
Saturation Present? Yes X No Depth (iii	nches): Welland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks:	

	ábcolute	Dominant	Indicator		
Tree Stralum (Plot size:)		Species?		Dominance Test worksheet:	
	To provide the property of		-	Number of Dominant Species	
1.				That Are OBL, FACW, or FAC: (/	A)
2				Total Number of Dominant	
3.				Species Across All Strata:(I	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:	
		= Total Co	(Ar	OBL species x1 =	
	-	- Total CO	/ NG-1		
Sapting/Shrub Stratum (Plot size:)	1	1.7	. سو	FACW species x 2 =	
1. Alnus incana		<u> </u>	FACU	FAC species x 3 =	
2 Salix petiolaris	1	N	FACL	FACU species x 4 =	
		***************************************		UPL species x 5 =	İ
3,		***************************************	***************************************	Column Totals: (A)	(B)
4					
5.				Prevalence Index = B/A =	1
				Hydrophytic Vegetation indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7.				1 7 ····	
	2	= Total Co	ver	2 - Dominance Test is >50%	
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.01	
1. Rubus hispidus	25	4	FACIS	4 - Morphological Adaptations <sup>1</sup> (Provide suppo	orling
				data in Remarks or on a separate sheet)	
2. Symphyotrichum lanceolatum		<u>N</u>	FACW	Problematic Hydrophytic Vegetation¹ (Explain)	)
3. Solidans gagaten	3	N	FACW		
4. Sparting pectinata	7/2	N	TACH	Indicators of hydric soil and welland hydrology mu	ist
4. Spatting vectinata	10	( )	<del>-</del>	be present, unless disturbed or problematic.	
5. Carex Stricta	15		<u>0BL</u>	Definitions of Vegetation Strata:	
6			1.112.1		.
7.				Tree – Woody plants 3 in. (7.6 cm) or more in diam at breast height (DBH), regardless of height.	neter
				at breast fleight (DDH), regalitiess of fleight.	
8.				Sapling/shrub - Woody plants less than 3 in. DBI	4
9				and greater than or equal to 3.28 ft (1 m) tall.	
10				Herb - All herbaceous (non-woody) plants, regard	lect
				of size, and woody plants less than 3.28 ft tall.	1433
11,	***************************************		<del></del>		
12.	-	-		Woody vines - All woody vines greater than 3.28	ft in
	1,0	= Total Co	ver	height,	
Marine A. Marine Manhard (Marine)		,			
Woody Vine Stratum (Plot size:)					
1,					
2.					
3				Liver and the second	
· .				Hydrophytic Vegetation	
4.	. *************************************		-	Present? Yes No	
		≖ Total Co	ver	7	
Remarks: (include photo numbers here or on a separate s	sheet.)				
1212					
Not heavily negetated					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
		to the dep				or confirm	n the absence of in	ndicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature:		Loc	Texture	Remarks
V		/00						
4-1	104R 2/1	* *************************************			***		1	01922:03
6-10	2.542.5/1	100	the state of the s	-		***************************************	Self loan	Organics Slightly Mucky
	21		71					
10-19	2.54311	94	104R3/3	2		<u> </u>	Loany Saxo	
					************	-		
******************	<del>geografic - y monoco-que communication y communication y co</del>		***************************************	<del></del>	***************************************	***************************************	Contraction of Security Contraction (Security Contraction)	кабунун ображування у выхоляющим населения може робе з фоборования учения учения сустом учение сустом в учение
	·	· ——				-		
		-	<del></del>					
***************************************	januari ministrati kan manakan kan kan kan kan kan kan kan kan k		*************************		************		-	
***************************************	MANAGED CONTRACTOR OF THE CONT			-	*************		**************************************	
<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	***************************************	. ——						
l=	4						2,	
'Type: C≔C Hydric Soll		letion, RM	⊫Reduced Matrix, M	S=Masked	Sand Gr	8:03		≠Pore Lining, M=Matrix. Problematic Hydric Solis³:
Histosol			Polyvalue Belov	v Surface	(SB) (LR)	RR		(A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 1498		(OO) (EIC	111,		te Redox (A16) (LRR K, L, R)
	istic (A3)		Thin Dark Surfa				l) 5 cm Muck	y Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		X Loamy Mucky			(, L)		ce (S7) (LRR K, L, M)
· · · · · · · · · · · · · · · · · · ·	d Layers (A5) d Below Dark Surfac	e (A11)	Loamy Gleyed Depleted Matrix		)			Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L)
	ark Surface (A12)	C (A11)	Redox Dark Su					mese Masses (F12) (LRR K, L, R)
Sandy N	Mucky Mineral (S1)		Depleted Dark				Pledmont F	loodplain Solis (F19) (MLRA 1498
	Sleyed Matrix (S4)		Redox Depress	ions (FB)				śc (TAG) (MLRA 144A, 145, 1498)
	Redox (S5) I Matrix (S6)						***************************************	t Material (F21) ow Dark Surface (TF12)
	rface (S7) (LRR R, N	ALRA 149	B)					lain in Remarks)
								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			elland hydrology mu:	st be prese	ant, unles	s disturbed	d or problematic.	
	Layer (If observed):	i						
Тура:								🗸
Depth (in	ches):				auni racorraturaturaturaren		Hydric Soll Pres	seni? Yes X No
Remarks:								

Sadhari.

WETLAND DETERMINATION DATA FOR	
Project/site: Strum Lublin City/Com	unty: Eac Clair Co sampling Date: 9/23/13
Applicant/Owner: DPC	State: 6/T Sampling Point: 07402
Investigator(s): KB + AJ Section	State: WE Sampling Point: 074D2, Township, Range: 54 T250 R5W
Landform (hillstope, terrace, etc.): hillstope Local relief	f (concave, convex, none): AD Ac Stope (%): 5
Landform (hillslope, terrace, etc.): hillslope Local relief Subregion (LRR or MLRA): LRR K Lat: 44 40 (e	.74 Long: 90 59 31.82 Datum: NAD 83
Soil Map Unit Name: <u>Menahaa Sound</u>	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	s No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbe	ed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problemati	c? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing samp	oling point locations, transects, important features, etc.
Hydric Soil Present? Yes No X	Is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present? Yes No X I Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID:
Photo # 109-111 Structure	
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)	Moss Trim Lines (B16)
Saturation (A3) Mart Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor	Dry-Season Water Table (C2) r (C1) Crayfish Burrows (C8)
Sediment Deposits (B2)  Oxidized Rhizospheres	
Drift Deposits (B3) Presence of Reduced	
Algai Mat or Crust (B4) Recent Iron Reduction	<del></del>
Iron Deposits (B5) Thin Muck Surface (C7	- · · · · · · · · · · · · · · · · · · ·
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rema	· · · · · · · · · · · · · · · · · ·
Sparsely Vegetaled Concave Surface (BB)	FAC-Neutral Test (D5)
Field Observations:  Surface Water Present?  Yes NoY Depth (inches):	
Surface Water Present? Yes No Depth (Inches):	
Saturation Present? Yes No Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previ	ious inspections), if available:
Remarks:	

	Absolute	Dominant	Indicator	
Tree Stratum (Ptol size:)		Species?		Dominance Test worksheet:
		water-territories.		Number of Dominant Species
1.		***************************************	***************************************	That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3.		Water Company (1997)	***************************************	Species Across All Strata: (B)
4				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 50 (A/B)
5			-	
6				Prevalence index worksheet:
7				Total % Cover of Multiply by:
		= Total Cov	/er	OBL species O x1 = O
	-	- 100,00		FACW species 32 x2 = 64
Sapling/Shrub Stratum (Plot size:)				- Meditions of the control of the co
1,	-	***************************************	***************************************	1710 3900103
2				FACU species 35 x4 = 140
				UPL species
3			******	Column Totals: <u>Ce7</u> (A) <u>204</u> (B)
4				3.04
5.			***************************************	Prevalence Index = B/A = 3.64
6,				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
		T		2 - Dominance Test is >50%
		= Total Co	ver .	3 - Prevalence Index is £3.01
Herb Stratum (Plat size:) 1. Soort time Dectineta	25	ړ	FACHI	4 - Morphological Adaptations (Provide supporting
		<u> </u>	FACW	data in Remarks or on a separate sheet)  — Problematic Hydrophytic Vegetation' (Explain)
2 Anhas hispidus			-	Problematic Hydrophytic Vegetation (Explain)
3. Pro production	<u> 35 </u>	4	FACU	I wall and any of banders and any of banders and a
4.				Indicators of hydric soil and welland 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 and greater than or equal to 3.28 ft (1 m) tall.
9				and greater man or equal to 5.20 it (1 m) tan:
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
	/		***	height.
	<u> </u>	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1.				
2.				
	-			
3.				Hydrophylic
4.		-	***************************************	Vegetation Present? Yes No
		= Total Co	ver	177
Remarks: (Include photo numbers here or on a separate	sheet.1			
	,			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
Not howing ocquitated				
· ·				

Samcana Point 07402

#### SOIL

Profile Description: (Describe to the de	pth needed to docum	ent the in	dicator	or confirm	the absence	of Indicators.)
Depth Matrix		Features		12.7	<b>*</b> *******	Para artes
(inches) Color (moist) %	Color (moist)	<u>*</u> .	Type	Loc*	Texture	Remarks
0-20 2576/3 100				***************************************	Sand	***************************************
	***************************************					
		•		22-00-00-00-00-00-00-00-00-00-00-00-00-0		
***************************************	***************************************				Name of the Control o	The second secon
					<del></del>	ADDITION OF THE PROPERTY OF TH
				77-1-1-1-1-1		
THE PROPERTY OF THE PROPERTY O		-		***************************************		
***************************************						
<sup>1</sup> Type: C=Concentration, D=Depletion, R1	#Reduced Matrix MS:	=Masked !	Sand Gr	ains	2 Location	PL=Pore Lining, M=Matrix.
Hydric Soll Indicators:	The state of the s	imitera en menicoli den maneralita	Annual Communication	and the second s		for Problematic Hydric Solis <sup>3</sup> :
Histosol (A1)	Polyvalue Below	Surface (	S8) (LRI	R.		luck (A10) (LRR K, L, MLRA 1498)
Histic Epipedon (A2)	MLRA 1498)	•				Prairie Redox (A15) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surface	:e (S9) (Lf	RR R, M	LRA 1498)		lucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mi	ineral (F1)	(LRR K	, L)	Dark S	ourface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed M					lue Below Surface (\$8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surf					anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (\$1) Sandy Gleyed Matrix (\$4)	Depleted Dark S Redox Depression	-	,			ont Floodplein Soils (F19) (MLRA 1498) Spodic (TAG) (MLRA 144A, 145, 1498)
Sandy Redox (S5)	Nedox Depressi	Dita (10)				arent Material (F21)
Stripped Matrix (S6)						hallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14)	9B)					(Explain in Remarks)
<sup>3</sup> Indicators of hydrophytic vegetation and v	veliand hydrology must	be preser	nt, unies:	s disturbed	or problematic	la .
Restrictive Layer (if observed):						
Type:						. /
Depth (inches):					Hydric Soil	Present? Yes No
Remarks	energia anterior de constitución con constitución de constitución en el constitución de consti					

# Strum-Lublin 69kV (N-3) Transmission Line Rebuild Project Phase I: Strum Tap to Willard Tap



DIRECTION	FEATURE ID	074D	DATE
West	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/23/2012

### COMMENTS

Wetland is located adjacent to Black Creek.

	DRM – Northcentral and Northeast Region
Project/Site: Strum Lublin City	County: Earl Claire Co sampling Date: 9/23//2
Applicant/Owner: DPC	State: WI Sampling Point: 076 01
Investigatorisi: KB + AJ Secti	State: WT Sampling Point: 07601
Landform (hillstone terrace etc.): Plana Local re	lief (concave, convex, none): None Stope (%): 0
Subsection (I PR or MI PA): 1 PA K Let 44 40 C	e.74 Long: -90 59 11.76 Datum: NAD83
soil Map Unit Name: Newson Lowny Sand	NWI classification
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation Soil or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes / No
SUMMARY OF FINDINGS - Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Yes No Y	is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present? Yes NoX	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Structure le3 photo#1.	12
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 Leav	
High Water Table (A2) Aquatic Fauna (B13	-
Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Or	
Sediment Deposits (B2)  Oxidized Rhizosphe	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algai Mat or Crust (B4) Recent Iron Reducti	
Iron Deposits (B5) Thin Muck Surface (	(C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	emarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (Inches):	MILITARIA (1944)
Water Table Present? Yes No Depth (Inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	

r	Attackets Canadanat Indiana.	
Year Charles (Clateria)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
Tree Stratum (Ptot size:)		Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2		
l .		Total Number of Dominant
3.		Species Across All Strata: (B)
4.		Percent of Dominant Species
l .		That Are OBL, FACW, or FAC: (A/B)
5		
6		Prevalence Index worksheet:
7,		Total % Cover of Multiply by:
	= Total Cover	OBL species O x1 =
Sapling/Shrub Stratum (Plot size:)		FACW species 25 x 2 = 56
		FAC species x 3 =
1		FACU species x 4 =
2.		UPL species 25 x 5 = 125
3.		OFL species
1		Column Totals: <u>50</u> (A) <u>175</u> (B)
4.		3.5
5		Prevalence Index = B/A = 3/5
1		Hydrophytic Vegetation Indicators:
6,		
7.		1 - Rapid Test for Hydrophytic Vegetation
	≖ Total Cover	2 - Dominance Test is >50%
	- 1000, 00701	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)	. O	4 - Morphological Adaptations (Provide supporting
1. Spriting pectinity	25 T FACW	data in Remarks or on a separate sheet)
2. Friplasis purphrea	25 Y UPL	Problematic Hydrophytic Vegetation! (Explain)
2. Fripiasis purparea	ATE	Troubliness Hydrophysic Vegetation (Explain)
3,		The street of the state of the
4		Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
1		be present, unless bisitived 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.		Sapilng/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 3.26 ft tall.
§		Woody vines - All woody vines greater than 3.28 ft in
12.	namen minusianingan distribution distributio	heicht.
	50 = Total Cover	
Woody Vine Stratum (Plot size:)		
WOODY VINE CHALDIN (FIOL 526.		
1,		
2.		
		<b>` </b>
3		. Hydrophytic
4.		Vegetation Present? Yes No
	≠ Total Cover	Present? TesNO
Remarks: (Include photo numbers here or on a separate	e sneet.)	
Not heardly requested		
· · · · · ·		

Profile Desc	ription: (Describe I	o lihe dep	th needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix Color (color)	96		x Feature:		1 + + 1	T	Damasta	
(inches)	2.57 3/2		Color (moist)		Type'	_Loc*	Texture	Remarks	
0-3		100			-			<u> </u>	
3-6	2.54 4/3	97	10483/6	3_	<u> </u>	PL	Sand		
6-14	2.546/4	95	1048.36	_5_		PL	Sand		
				-			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		***************************************		-	************	***************************************			
***************************************									
				***************************************			***************************************	<u> </u>	
					4,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	4171017-11111111111111111111111111111111			
	direction and a second and a second and a second	-		***************************************	***************************************	***************************************	<del></del>		
		***************************************							
<del></del>									
'Type: C≔Co Hydric Soll I	oncentration, D=Depl	etion, RM	Reduced Matrix, MS	S=Maskec	Send Gr	ins		: PL=Pore Lining, M=Matrix. for Problematic Hydric Solis <sup>2</sup> :	
Histosol			Polyvalue Belov	v Surface	(S8) (LRI	r R		Muck (A10) (LRR K, L, MLRA 1498)	
	ipedon (A2)		MLRA 1498)		(00) (211			Prairie Redox (A16) (LRR K, L, R)	
Black Hi	• "		Thin Dark Surfa					flucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4) Layers (A5)		Loamy Mucky M			, L)		Surface (S7) (LRR K, L, M)	
	i Layers (AG) I Below Dark Surface	(A11)	Loamy Gleyed I Depleted Matrix		,		Polyvalue Below Surface (S6) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)		
	rk Surface (A12)	, , ,	Redox Dark Sui				Iron-Manganese Masses (F12) (LRR K, L, R)		
Sandy M	lucky Mineral (\$1)		Depleted Dark S		7)			ont Floodplein Soils (F19) (MLRA 1498)	
	leyed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spedic (TA6) (MLRA 144A, 145, 149B)		
	есон (S5) Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)		
	riace (S7) (LRR R, M	ILRA 1498	3)				Other (Explain in Remarks)		
4									
	hydrophytic vegetat .ayer (if observed):		diand hydrology mus	t be prese	ent, unless	disturbed	or problematic	1.	
Type:	aye: (II onserveu).								
	:hes}:		***************************************				Hydric Soli	Present? Yes No	
Remarks:	410 0 }						***************************************		
ricinality.									

**077D** 

	RM - Northcentral and Northeast Region
Project/site: Strum Lublin chyc	county. Ear Claire Co Sampling Date: 9/23/12
Applicant/Owner: DPC	State: UI Sampling Point: 0770
Investigator(s): KB + AJ Secti	on, Township, Range: 53 T25U R5W
Landform (hillstope, terrace, etc.): depression Local ref	
Subregion (I PP or MI PA): LRK   I al: 44 40 70	02 Long: -90 58 41.74 Delum: <u>NAD83</u>
Soil Map Unit Name: Newson 10 amy sound	NVMI classification
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation N, Soil N, or Hydrology N significantly disturbed Are Vegetation N, Soil N, or Hydrology N naturally problem	ned? Are Normal Circumstances present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No No	is the Sampled Area
Hydric Sail Present? Yes 🗸 No	within a Wetland? Yes No
Welland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Photo #113	
411000 11 110	
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 Leave	es (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	
∑ Saturation (A3) Marl Deposits (B15)	
Water Marks (B1) Hydrogen Suffide Oc Sediment Deposits (B2) Oxidized Rhizospher	
Sediment Deposits (B2) Oxidized Rhizosphei Drift Deposits (B3) Presence of Reduce	
	on in Titled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (Inches):	MManuseholyrine relitorations
Water Table Present? Yes No X Depth (Inches):	
Saturation Present? Yes X No Depth (inches):	/ Wetland Hydrology Present? Yes
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	
remarks.	

	Absolute	Dominant		Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
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	ær	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1,				FAC species x 3 =
2				FACU species x 4 =
3.				UPL species x 5 =
			***************************************	Column Totals: (A) (B)
4				Prevalence Index = B/A =
5,				
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. Symphyotrichum lanceolatum	15	N.	FACW	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
		Ÿ	***************************************	Problematic Hydrophytic Vegetation (Explain)
2. Calamageostis Canadensis			OBL	Problematic (Typiophysic Vegetation (Explain)
3. Bubus Nikpidus		<u> </u>	FACU	Indicators of hydric soil and welland hydrology must
4. Carex Stireta	<u> </u>	<u> </u>	OBL	be present, unless disturbed or problematic.
5.				Definitions of Vegetation Strata:
6.				SUMMINUS OF ENGINEERS AND MA.
				Tree – Woody plants 3 in, (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7.				at trees hagit (DOH), regardess of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
9	***************************************			and greater than or equal to 3.26 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 3.26 ft in
	100	= Total Co	rë:	height,
Milanda San Chadam (Cladaina)	**************************************	, 10.0.00		A
Woody Vine Stratum (Plot size:)				
1,				
2				
3				Hydrophytic
4.	-		***************************************	Vegetation Present? Yes No
		= Total Co	ver	Liesoliti. Les Tro
Remarks: (Include photo numbers here or on a separate s	heet.]			
•				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox Features				च चाराच्याच्याच्याच्याच्याच्याच्याच्याच्याच्य	······································	
(inches)	Color (mojst)	96	Color (moist)	_%_	Type	Loc	<u>Texture</u>	Remarks	
1-9	2.54 2.71	<u>50</u>	2.54 5/2	45	$\overline{D}$	<u>M</u>	Clay loam		
			1042,4/6	_5_	C	PL	-		
9-18	2.54 4/1	93	1042 4/6	7	$\overline{}$	PL	Sand		
	<u> </u>			· ———		<u></u>			
•	**************************************	<del></del>	None of the second of the seco		***************************************	***************************************	**************************************		
	<u> </u>						***************************************		
***************************************	•								
					***************************************	***************************************			
***************************************		******************		• • • • • • • • • • • • • • • • • • •	***********	***************************************	**************************************		
***************************************	***************************************	***************************************	Andreas decimals and the decomposition and another service another service and another service another service and another service and another service and another service and another service another service and another service and another service and another service and another service another service and another service and another service another service another service and another service and another service another service and another service another service and another service another service another service another service another ser	-	***************************************		<del>Description of the second sec</del>		
THE PRODUCTION OF THE PROPERTY	oncentration, D=Dept	etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains		Pore Lining, M=Matrix.	
Hydric Soll I			Polyvalue Belov	u Curlon-	(08) (I P)	<b>.</b> .		oblematic Hydric Solis <sup>2</sup> :	
. —	(A1) olpedon (A2)		MLRA 1498)		(30) (LKI	<b>τ κ</b> ,		A10) (LRR K, L, MLRA 149B) Redox (A16) (LRR K, L, R)	
	stic (A3)		Thin Dark Surfa	ce (S9) (L	.RR R, M	LRA 1498;	) 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky N			, L)		(S7) (LRR K, L, M)	
	d Layers (A5) d Below Dark Surface	(A11)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)				-	low Surface (S8) (LRR K, L) rface (S9) (LRR K, L)	
1	ark Surface (A12)	, , ,	Redox Dark Surface (F6)					ese Masses (F12) (LRR K, L, R)	
	fucky Mineral (S1)		Z Depleted Dark Surface (F7)					odplain Sols (F19) (MLRA 1498)	
	Sleyed Matrix (S4) Redox (S5)		Redax Depressions (F8)					; (TA6) (MLRA 144A, 145, 1498) Aateriai (F21)	
	Matrix (S6)							Derk Surface (TF12)	
Dark Sur	rface (S7) (LRR R, M	ILRA 1491	B)				Other (Explain in Remarks)		
la diametera es	f hydrophytic vegetati		والمراجعة والمراجعة المراجعة			والمراجعة والمراجعة المراجعة	l as acabines alia		
	i nydrophydd vegetau Layer (if observed):		stranti nytri ciogy mus	a ne hiese	SIR, UINES	s th stringn	i di problematic.		
Туре:									
Depth (in	ches):						Hydric Soll Prese	nt? Yes <u>×</u> No	
Remarks	n kaliinessamma aasti suurenaassa kirkennaassa oli aataamassiin salassamissiin salassamissiin salassamissiin s								
	•								

	RM - Northcentral and Northeast Region				
Project/Site: Strum Lublin Chyric	ounty: <u>Eas Clare Co</u> Sempling Date: <u>9/24/12</u>				
Applicant/Owner: DPC	State: WT Sampling Point: 077 D2				
Investigator(s): KB + AJ Section	n, Township, Range: 53 T250 R5W				
Landform (hillslope, terrace, etc.): Willslote Local relie					
Subregion (LRR or MLRA): LRR K Lat: 44 40 G	88 Long: -90 58 44.59 Datum: NAN 85				
Soil Map Unit Name: Veedom silt lown					
Are climatic / hydrologic conditions on the site typical for this time of year? You	_				
Are Vegetation V. Soil V. or Hydrology V. significantly disturb					
Are Vegetation	tic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing sam					
	Is the Sampled Area				
Hydrophytic Vegetation Present? Yes X No	within a Wetland? Yes No X				
Hydric Soil Present? Yes No Yes No	<del></del>				
Weltand Hydrology Present? Yes No	If yes, optional Wetland Site ID:				
Remarks: (Explain alternative procedures here or in a separate report.)					
At Structure # 069					
Photo # 114-115					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (86)				
Surface Water (A1) Water-Stained Leave:					
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 Odk					
Sediment Deposits (B2) Oxidized Rhizosphere	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduced					
Algai Mat or Crust (B4) Recent Iron Reduction					
Iron Deposits (B5) Thin Muck Surface (C					
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren	narks) Microtopographic Relief (D4)				
Sparsely Vegetaled Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No Depth (Inches):					
Water Table Present? Yes No Depth (Inches):					
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

				, 7
	Absolute			Dominance Test worksheet:
Tree Stratum (Ptot size:)	% Cover	Species?	Status	,
		***************************************		Number of Dominant Species
I		***************************************		That Are OBL, FACW, or FAC:(A)
2.				
			<del></del>	Total Number of Dominant
3,				Species Agross All Strata: (B)
	-			*
4,		***************************************	************************	Percent of Dominant Species
				That Are OBL, FACW, or FAC: 25 (A/B)
5		***************************************	************	
6				
V	-			Prevalence Index worksheet:
7,				Total % Cover of Multiply by:
		= Total Co	⁄er	OBL species <u>25</u> x1 = <u>25</u>
				FACW species x 2 =
Sapling/Strub Stratum (Plot size:)			eser s	7.014 \$500.03
1. Rubus alleaheniensis	1	$\varphi$	FACU	FAC species   0 x3 = 30
				FACU species x 4 = /4 **
2 Pinus Danksiana	3	N	FACY	
		4		UPL species 10 x 5 = 50
3. Constanta Dereurina	10		MPL.	Column Totals:(A)253(B)
4. Spiraea alba	2.	N	FACW	(4)(0)
4. JULIARA OLOG		1.4	17000	1
5,				Prevalence Index = B/A = 3.0
	* *************************************	4	***************************************	
6,			***************************************	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	-		-	2 - Dominance Test is >50%
	23	≖ Total Co	ver	
		'		3 - Prevalence Index is ≤3.0 <sup>7</sup>
Herb Stratum (Plot size:)		1		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1, Solidan Giornia	<b>5</b>	$\sim$	FAELY	data in Remarks or on a separate sheet)
			F	· · · · · · · · · · · · · · · · · · ·
2. Potentila Simplex	25	9	FARIA	Problematic Hydrophytic Vegetation' (Explain)
		3 /	50 +	
3. Careye sstereta	10	<u> </u>	<u>0BL</u>	
4. Calamagnostis andres	15	4	OBE	Indicators of hydric soil and wetland hydrology must
· · · · · · · · · · · · · · · · · · ·	-		*****	be present, unless disturbed or problematic.
5. Euthamia graminifolia	10	$\sim$	FAC	
J. LO INSOVERING AVENTINIA				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.	ia <del>initialitaminina</del>	_	***************************************	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,				<b>1</b>
12.				Woody vines - All woody vines greater than 3.28 ft in
12.	<del></del>	-	***************************************	heicht.
	6	= Total Co	ver	ri er geter
Woody Vine Stratum (Plot size:)				
_				
1,				1
2.				<u> </u>
	-			
3				Hydrophylic
				Vogetallen
4.	<del></del>	. <del></del>		Present? Yes No
		= Total Co	Ver	- market and a mar
		10.0.00	141	
Remarks: (Include photo numbers here or on a separate	sheet.)			

	ription: (Describe t	o the depti				or confirm	the absence of inc	licators.)
Depth (inches)	Metrix Color (moist)	%	Redox Color (moist)	c Features	Type	Loc	Texture	Remarks
0-3	104R4/2	100					-	
3-20	the state of the s	100		***********		-	842	<u>anna ann agus ann an agus ann air dean air dheann an an dhead dhòran an air air an an an an an an dhean dhòr</u>
		100			***************************************			
	***************************************	***************************************				*************	Miles de la companya del companya de la companya de la companya del companya de la companya de l	
		-			-	***************************************		
	***************************************	***********			***************************************	***************************************	• · · · · · · · · · · · · · · · · · · ·	
		-						
		***************************************		-	**************	***************************************	***************************************	
· · · · · · · · · · · · · · · · · · ·	***************************************				***************************************	***************************************		
	***************************************			***************************************				
1_							2,	
'Type: C≕Co Hydric Soil k	oncentration, D=Dept	etion, RM=	Reduced Matrix, MS	S=Masked	Send Gr	ains		Pore Lining, M=Matrix. roblematic Hydric Solis <sup>a</sup> :
Histosol			Polyvalue Belov	v Surface	(S8) (LRI	₹R.		A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	•	MLRA 1498)	1			Coast Prairie	Redox (A16) (LRR K, L, R)
Black His		_	Thin Dark Surfa					Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4) I Layers (A5)	-	Loamy Mucky M Loamy Gleyed I	-		, L)		: (S7) (LRR K, L, M) :low Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					urface (S9) (LRR K, L)
-	rk Surface (A12)	-	Redox Dark Sur	• •	<b>~</b> .			iese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1) leyed Matrix (S4)	-	Depleted Dark S Redox Depress		()			oodplein Soils (F19) (MLRA 1498) c (TA6) (MLRA 144A, 145, 1498)
Sandy R	-	-		, , , , , , , , , ,				Material (F21)
	Matrix (S6)							v Dark Surface (TF12)
Dank Sur	rface (S7) (LRR R, N	ILRA 1498	)				Citner (Expis	in in Remarks)
	hydrophytic vegetat		land hydrology mus	t be prese	nt, unles	s disturbed	or problematic.	
	.ayer (if observed):							
							Muddle Call Oren	sm1? Yes No <u>×</u>
	:hes):				www.combasea	armanandorna arconolina en la sela dela	nyone son Fiesi	
Remarks:								

# Strum-Lublin 69kV (N-3) Transmission Line Rebuild Project Phase I: Strum Tap to Willard Tap



DIRECTION	FEATURE ID	077D	DATE
West	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/24/2012

# 078D1 078D2

	tral and Northeast Region
Projecusite: Strum Lublin City/County: Equ	<u>Claire 6</u> Sampling Date: 7/24/12
Applicant/Owner: DPC	State: WI Sampling Point: 0780
Investigator(s): KB†AJ Section, Township, Range	6: 53 T25N R5W
Landform (hillstope, terrace, etc.): <u>De O (C SS ( B A Local relief</u> (concave, convex	
Subregion (LRR or MLRA): LARK Let: 44 40 6.91 Long:	
soil Map Unit Name: Fairchild & Merillan 30:15	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	
Are Vegetation N. Soil N. or Hydrology N significantly disturbed? Are "No	
Are Vegetation N. Soil N. or Hydrology N naturally problematic? (If need	led exclain any answers in Remarks )
SUMMARY OF FINDINGS – Attach site map showing sampling point loc	
Hydrophytic Vegetation Present? Yes X No Is the Sampled At Within a Wetland?	rea 😾
	etland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Structure # 80	
HYDROLOGY	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (B9)	Drainage Patterns (B10)
<del></del>	
High Water Lebie (AZ) Aquado Fauna (B13)	Moss Trim Lines (B16)
High Water Table (A2)  Saturation (A3)  — Aquatic Fauna (B13)  — Mart Deposits (B15)	Moss Trim Lines (B16) Dry-Season Water Table (C2)
Seturation (A3) Mart Deposits (B15)     Water Marks (B1) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2) Crayfish Burrows (C8)
<ul> <li>Seturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Marl Deposits (B15)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living Roots (C1)</li> </ul>	Dry-Season Water Table (C2) Crayfish Burrows (C8)
X       Saturation (A3)       Mart Deposits (B15)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)         Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C2)         Drift Deposits (B3)       Presence of Reduced Iron (C4)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
X       Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
X       Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
<ul> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Mart Deposits (B15)</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Titled Soils (C6)</li> <li>Thin Muck Surface (C7)</li> <li>Other (Exptain in Remarks)</li> </ul>	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
✓ Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
<ul> <li>✓ Saturation (A3)</li> <li>✓ Water Marks (B1)</li> <li>✓ Sediment Deposits (B2)</li> <li>✓ Drift Deposits (B3)</li> <li>✓ Algal Mat or Crust (B4)</li> <li>✓ Iron Deposits (B5)</li> <li>✓ Inundation Visible on Aerial Imagery (B7)</li> <li>✓ Spersely Vegetated Concave Surface (B8)</li> <li>✓ Mark Deposits (B15)</li> <li>✓ Presence of Reduced Iron (C4)</li> <li>✓ Recent Iron Reduction in Titled Soils (C6)</li> <li>✓ Thin Muck Surface (C7)</li> <li>✓ Other (Explain in Remarks)</li> </ul>	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (E5)  Inundation Visible on Aerial Imagery (B7)  Spersely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (Inches):  Saturation Present?  Westa	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Saturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunded or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunded or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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Seturation (A3)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2		
		1 out trained of partitions
3,		Species Across All Strate:(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 Cover	OBL species x1 =
Sapling/Shrub Stratum (Plot size:)		FACW species x 2 =
1		FAC species x3 =
2.		FACU species x 4 =
		UPL species x 5 =
3.	and a superior of the superior	Column Totals:(A)(B)
4		_
5.		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
	= Total Cover	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)	. 1	4 - Morphological Adaptations (Provide supporting
1. Casex Stretz	<u>85 Y OBL</u>	data in Remarks or on a separate sheet)
2 Scirpus emperinas	10 N OBL	Problematic Hydrophylic Vegetation' (Explain)
3.		_   ,
4.		Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
5		<ul> <li>Definitions of Vegetation Strata:</li> </ul>
6.	AND THE PROPERTY OF THE PROPER	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7,		at breast height (DBH), regardless of height.
8.		
		<ul> <li>Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.26 ft (1 m) tall.</li> </ul>
9		
10,		
11.		of size, and woody plants less than 3.28 ft tall.
12.		Woody vines - All woody vines greater than 3.28 ft in
	95 = Total Cover	height.
	= Total Cover	
Woody Vine Stratum (Plot size:)		
1,		
2		
3		_ Hydrophylic
		Vocatation
4.		Present? Yes No
	= Total Cover	
Remarks: (Include photo numbers here or on a separat	le sheet.)	
1		

	cription: (Describe)	o the dep				or confirm	m the absence of indicators.)
Depth (inches)	Metrix Color (moist)	96	Redox Color (moist)	Feature %	s Type	Loc	Texture Remarks
0-1	COO HHOSE		COO IIIO 317				
	2.545/2	98	1042 4/4			PL	Organics/Fest
1-7-		78				1	Claylony
4-10	2.51N	99	10483/3	<u>_</u>	<u> </u>	PL	Silty Chylan Slightly Mucky
10-15	2.59 4/1	93	7.548 34			AF	Silt loum With grave!
15-18	2.54 5/2	100				dažini pradžinam a prižirijam i	Sand untique
							V
				-			
		-		***************************************		***************************************	***************************************
***************************************	<del>«</del>		**************************************			***************************************	
***************************************		- Manufacture Constitution		with and another product	· Management and America	-	
		-					
Type: C=C	oncentration D=Den	letion RM	=Reduced Matrix, MS	=Masker	Sand Gr	ains	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soll	unconstruction of the second statement of the second secon	in this section is a section of the	uti liner en la matini però rella esti a su est e su con incresió en el unio entre est e son a consessione	encederal contract succession in	ancheromenaumber teramer set	NAZI SANTANIONA CONTINUES ANTINOS ANTI	Indicators for Problematic Hydric Solis <sup>3</sup> :
Histosol	(A1)		Polyvalue Below	Surface	(S8) (LR	RR.	2 cm Muck (A10) (LRR K, L, MLRA 1498)
	pipedon (A2)		MLRA 1498)				Coast Prairie Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surface Loamy Mucky M				<ul><li>5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</li><li>Dark Surface (S7) (LRR K, L, M)</li></ul>
1	d Layers (A5)		Loamy Gleyed I			., L)	Polyvalue Below Surface (S8) (LRR K, L)
1	d Below Dark Surface	t (A11)	X Depleted Matrix		,		Thin Dark Surface (S9) (LRR K, L)
1	ark Surface (A12)		Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)
	Aucky Mineral (S1)		Depleted Dark S				Piedmont Floodplain Soils (F19) (MLRA 1498)
I —	Sleyed Matrix (S4) Redox (S5)		Redox Depressi	ons (Fo)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)
	Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	ALRA 1491	3)				Other (Explain in Remarks)
3Indicators o	f hydrachyfic venetal	ion and w	Hiand hydrology mus	the presi	ent unles	s riisturber	d or problematic
1	Layer (If observed):			t 00 pt 03	ork, ornes	3 6 3 8 11 10 0	T T T T T T T T T T T T T T T T T T T
Туре:							
Depth (in	ches);						Hydric Soll Present? Yes No
Remarks		CONTRACTOR CONTRACTOR CONTRACTOR	and the state of t	le se ett træse ett green.		#* <u>###################################</u>	

WETLAND DETERMINATION DATA FO	RM – Northcentral and Northeast Region				
Projectisite: Strum Lublin City	County: <u>Early (Tarve (a</u> Sempling Date: <u>9/24/12</u>				
Applicant/Owner: DPC	State: YUI Sampling Point: 078DZ				
	on, Township, Range: 53 T25N R5W				
<del>-</del>	lief (concave, convex, none): COncave Slope (%):				
	4.43 Long: -90 57 4544 Datum: NADE3				
Soil Map Unit Name: Friendlid to Merrillam 50					
Are climatic / hydrologic conditions on the site typical for this time of year?					
	rbed? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing sar	npling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No No Welland Hydrology Present? Yes No	Is the Sampled Area within a Wetland? Yes No  If yes, optional Wetland Site ID:				
Remarks: (Explain atternative procedures here or in a separate report.)					
ower,					
Photo # 119					
The control of the co					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (96)				
Surface Water (A1) Water-Steined Leave					
High Water Table (A2) Aquatic Fauna (B13)					
Saturation (A3) Mart Deposits (B15)	-				
Water Marks (B1) Hydrogen Sulfide Oc	1				
	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduce					
	on in Titled Soils (C6) Geomorphic Position (D2)				
Iron Deposits (B5) Thin Muck Surface (					
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)  FAC-Neutral Test (D5)				
Sparsely Vegetated Concave Surface (B8)	FAC-NGUIAI 165( (DD)				
Field Observations:					
Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):	Wilder and the state of the sta				
Saturation Present? Yes No Depth (inches):					
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:				
положения выправления положения выправления выправлен	statistismennostinalusik kasat kasat internationalismenti kasat kasat internationalismenti kasat inter				

#### **VEGETATION** – Use scientific names of plants.

Sampling Point: 07802

	Absolute	Dominant	Indicator	
Tree Stralum (Plot size:)		Species?		Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1				marke obt, rhow, or rho.
2				Total Number of Dominant
3,	<del></del>			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:
		= Total Co		OBL species x1 =
			7101	FACW species x2 =
Sapting/Strub Stratum (Plot size: )  1. Alnus incana 2 Sociaec alba	1000	.		
1. Alnus incara		\$ 10E	FACW	FAC species x 3 =
2. Spiraea alba	2_	2)	FACU	FACU species x 4 =
		***************************************	***************************************	UPL species x 5 =
3.				Column Totals: (A) (8)
4				
5				Prevalence Index = B/A =
i				Hydrophytic Vegetation Indicators:
6				1 \ -,
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:)		1		3 - Prevalence Index is ≤3.0°
1. Patentille Simpley	_5	N	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. 6 lucesia Caradases	10	N	OBL	Problematic Hydrophytic Vegetation* (Explain)
		7	OBL	,
3. Carpe Stricta				Indicators of hydric soil and wellend hydrology must
4. Rubus Hispidus	Lho_		FACE	be present, unless disturbed or problematic.
5 Scirpus experinus	1	N	OBL	
6. Sphagnam Magellanicum		N		Definitions of Vegetation Strata:
6. Sprageman Manpinanirasa		!	-	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
1				and greater than or equal to 3.28 ft (1 m) tall.
9				
10,	<del></del>		• •	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
	- AI	************		height.
		= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1.				
			-	
3				Hydrophytic
4				Vegetation   Present? Yes   No
		≖ Total Co	6.40c	Present? Yes No
		- Iwai co	1401	
Remarks: (Include photo numbers here or on a separate	sneet.)			

Sampling Point 07602

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth								<b>-</b>
(inches)	Color (molst)	<u>%</u>	Color (molst)	<u>%</u>	Type	Loc*	<u>Texture</u>	Remarks
0-13	2.543/1	95	7.548 2.5/3	5		<u>PL</u>	Silt loage	Slightly Mucky
13-19	2.545/3	80	7.542 4/6	20	<u></u>	PL	10amy San	<i>3</i>
•							7	
		***************************************			***************************************			
***************************************				<del></del>				
			-	<u> </u>				i dankan manana mandidi da mangapan mengangan panjankan ng majagan pendipingangan ng magana katif manan mengah menanaja
			•					
			***************************************					
***************************************				***************************************	************	***************************************		
-	Mary Parison - Incompany years (mary - east-market market				50-24-00-00-00-00-00-00-00-00-00-00-00-00-00	***************************************	Control of the Contro	
							2	
'Type: C≃C⊲ Hydric Soll I		etion, RM≃	Reduced Matrix, MS=	:Masked	Sand Gr.	BINS		PL=Pore Lining, M=Matrix.  r Problematic Hydric Solis <sup>3</sup> :
Histosol			Polyvalue Below	Surface	(S81 (1 <b>B</b> 1			k (A10) (LRR K, L, MLRA 1498)
_	olpedon (A2)		MLRA 1498)	<b>30</b> 118001	(30) (1314)	\ \\.	<del></del>	lirie Redox (A16) (LRR K, L, R)
	stic (A3)		Thin Dark Surface	e (S9) (L	RR R, MI	RA 1498		ky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky Mir			, L)		ace (S7) (LRR K, L, M)
	i Layers (A5) i Below Dark Surface	. / 6 4 4 3	Loamy Gleyed M Depleted Matrix (		•			: Below Surface (S8) (LRR K, L) : Surface (S9) (LRR K, L)
	rk Surface (A12)	(11)	Redox Dark Surfa					ganese Masses (F12) (LRR K, L, R)
	lucky Mineral (\$1)		Depleted Dark St		7)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Floodplain Soils (F19) (MLRA 1498)
	Bleyed Malrix (S4)		Redox Depressio	ns (F8)				odic (TA6) (MLRA 144A, 145, 1498)
*******	tedox (S5)							nt Material (F21)
	i Matrix (S6) rface (S7) (LRR R, M	U DA 4400	<b>3</b> 4					flow Dark Surface (TF12) plain in Remarks)
Dark 50	riace (Sr) (ERR R, III	ILKA 1436	•)				Cone (ex	bann in Kemarks)
<sup>3</sup> Indicators of	I hydrophytic vegetat	ion and we	liand hydrology must	be prese	nt, unles	d sturbed	or problematic.	
Restrictive	Layer (If observed):		······································	************	***************************************			
Тура:								
Depth (in-	ches):						Hydric Soll Pro	esent? Yes X No
Remarks	et basketen sekonomietek kontronomietek eta kontronomietek kontronomietek eta Alaikan	et terriniscon entre continue de renco	cian granden and marcon cisis in server a decarate establishment distribution and considerate	BARCHARMONIA DE PROPERCIONAL DE CONTROL DE C	con una serramino el formede la lima e	emation of venicular income		ective-routh-fromissams-environments in moneyer-almost pilit a re-re-mediatekan sector-access from the residence of the resid

	RM – Northcentral and Northeast Region
Project/Site: Strum Lublin City/C	ounty: Eau Classe Co Sampling Date: 9/2/112
Applicant/Owner: DPC	State: UJT Sampling Point: 078P3
Investigator(s): KB+ AJ Section	state: <u>リナ</u> Sampling Point: <u>678P3</u> on, Township, Range: <u>53 T名うい</u> Rらい
Landform (hillslope, terrace, etc.): hillslope Local reli	
Subregion (LRR or MLRA): LAR Lat: 44 40 9:	
Soil Map Unit Name: Fairchild & Memilian soil:	
Are climatic / hydrologic conditions on the site typical for this time of year? Y	· .
Are Vegetation, Soil, or Hydrology significantly disturb	
- · · · · · · · · · · · · · · · · · · ·	*
Are Vegetation Soil or Hydrology naturally problems	
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Scil Present?  Welland Hydrology Present?  Yes No	Is the Sampled Area within a Wetland?  Yes No  If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	ir yes, operati wedana site to.
Structure # 83 Photo # 120, 121	
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 Leave	
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16) Dry-Season Water Table (C2)
Saturation (A3) Mart Deposits (B15) Water Marks (B1) Hydrogen Sulfide Od	
Water Marks (B1) Hydrogen Sulfide Od Sediment Deposits (B2) Oxidized Rhizospher	
Drift Deposits (B3) Presence of Reduced	
Algal Met or Crust (B4) Recent Iron Reduction	
Iron Deposits (B5) Thin Muck Surface (0	
Inundation Visible on Aerial Imagery (87) Other (Explain in Rer	
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 X No Depth (inches): //	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks;	

The state of the s	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
				marke ope, ryava, a rzo.
2	·			Total Number of Dominant
3,				Species Across All Strata: (B)
				-
4.	-			Percent of Dominant Species That Are ORL FACING or FAC:  (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
		***************************************	-	
6.	•			Prevalence Index worksheet:
7.				Total % Cover of Multiply by:
***************************************		***************************************		
		= Total Cor	ver	OBL species <u>51</u> x1 = <u>51</u>
Sapling/Strub Stratum (Plot size:)				FACW species 15 x 2 = 30
	â	. )	6 A	FAC species O x3 = O
1. Pinas Stiplas		$\frac{\mathcal{L}}{\mathcal{L}}$	FALLY	FACU species 24 x4 = 96
2. Acer Sacchaium	2.	.)	FAY	·
			- delle	UPL species x 5 =
3. Quercas habra		$\underline{\mathcal{U}}$	7-18-19	Column Totals: 90 (A) (7) (B)
, ·				Countri rocais, 19 (A) 11 (B)
5				Prevalence Index = B/A = 1.96
				Hydrophytic Vantaling Indicators
6,				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
	4			2 - Dominance Test is >50%
	4	= Total Co	ver	X 3 - Prevalence Index is ≤3.0
Herb Stratum (Plot size:)				
1. Rubus hispidus	10	N	FIRM	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
2. Potentilla Simplex	5	N	FACU	Problematic Hydrophytic Vegetation* (Explain)
		<del></del>		Trouble transportation to gatotical (Express)
3. Calamagistis canadonic	40		DBL	the residence of the second se
4. Glyceria Canadensis	1	N	OBL	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
2		<del></del>	-	be present, umess assurbed or problematic.
5. PDa Compressa	<u> </u>		FACU	Definitions of Vegetation Strata:
6. Calex Stricta	10	N	UBL	
		***************************************	***************************************	Tree - Woody plants 3 in, (7,6 cm) or more in diameter
7. Soliduas Alanatea	5	Ŋ	FACH	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.		***********		or size, and troopy prairies less than 5 25 ft tail.
1				Woody vines - All woody vines greater than 3.28 ft in
12.	87	***************************************	* *************************************	heicht.
	00	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
Troop the Statistic (100 Sec.				
1,				
,				
	-	-	* *************************************	
3				Hydrophylic
A				Vegetation
	-	•		Present? Yes X No
		= Total Co	<b>∀</b> eΓ	,
Remarks: (Include photo numbers here or on a separate	sheet.)			

	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	96	Color (moist)	lox Feature:	Type	Loc"	Texture	Remarks		
0-2	104R313	100					loan			
2-8	2.54 7/3	100					Sand			
4-13	2547/2	80	10427/8	20	<u> </u>	PI	Sand			
12-14	104R 3/2		10412 316			PL	Sandyloav	1.0		
19.10	ID IN 1/ C			<del></del>		1 ~	2200			
***************************************	dament descriptions at the second second						***************************************			
***************************************		·								
							***************************************			
	****									
					-					
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
***************************************	***************************************	-			***************************************	MUNICIPAL PROPERTY.	Management and the second seco			
	***************************************				<del></del>					
Type: C=C	concentration, D=Dep	eletion RM=	Reduced Matrix N		Sand Gr	ains	2) ocation: Pl	L=Pore Lining, M=Matrix.		
Hydric Soll		MONTH AND RESIDENCE TO SERVICE AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERS	por established and an established and a second a second and a second		arcedoment reproductive and all the second	industrial international control		Problematic Hydric Solis <sup>3</sup> :		
Histosol			Polyvalue Bel		(\$8) (LRI	RR,		(A10) (LRR K, L, MLRA 1498)		
	plpedon (A2) istic (A3)		MLRA 1499 Thin Dark Sur	,	.RR.R.MI	LRA 1498		rie Redox (A16) (LRR K, L, R) ry Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4)	-	Loamy Mucky				Dark Surfa	ice (S7) (LRR K, L, M)		
ı —	d Layers (A5)		Loamy Gleyer		)			Below Surface (S8) (LRR K, L)		
	d Below Dark Surfac ark Surface (A12)	æ (A11)	Depleted Matr Redox Dark S					Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, R)		
Sandy N	Mucky Maneral (\$1)	-	Depleted Dark	Surface (F			Pledmont	Floodplain Soils (F19) (MLRA 1498)		
	Sleyed Matrix (S4)	_	Redox Depres	ssions (F8)				dic (TAG) (MLRA 144A, 145, 149B) It Material (F21)		
	Redox (S5) d Matrix (S6)							ow Dark Surface (TF12)		
Dark Su	rrface (S7) (LRR R, I	MLRA 149B	)				Other (Exp	dain in Remarks)		
<sup>1</sup> Indicators o	a hydrophytic vegeta	tion and wel	land hydrology m	ust he nees	ent unles	s distumed	t or problematic			
	Layer (If observed)						1			
Туре:								\/		
Depth (in	nches):		and the same of th				Hydric Soli Pre	sent? Yes NoX_		
Remarks:	e de desirio de mante de discusar e do revene de la describió de del como de del consecución de del de consecu	entropio di rendi del minimo del della controlicazione	dinat tradition to the contract of the contrac		AND CONTROL OF THE PROPERTY OF THE	MANAGEMENT AND A STATE OF THE S				

	FORM - Northcentral and Northeast Region
Project/site: Strum Lubling of	city/county: <u>Fau Claire Co</u> sempling Date: <u>7/24/12</u>
Applicant/Owner: DPC	111 (787/1
	Section, Township, Range: <u>53 T25い R5い</u>
	al relief (concave, convex, none):
	7,69 Long: -90 57 54.79 Datum: NAD 83
	30115 NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year	X .
	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $N$ Soil $N$ or Hydrology $N$ naturally prof	blematic? (If needed, explain any answers in Remarks.)
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Scil Present?  Welland Hydrology Present?  Yes No	Is the Sampled Area within a Wetland? YesNo
Welland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report	If yes, optional Wetland Site ID:
Dhoto # 117	
	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:  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 (i	· · ·
Water Marks (B1) Hydrogen Sulfid	de Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizos	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Re	
3	duction in Tilled Sails (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surfa	
Inundation Visible on Aerial Imagery (B7) Other (Explain i Sparsely Vegetated Concave Surface (B8)	in Remarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	FAC-Neddai 165( (b5)
Surface Water Present? Yes No X Depth (Inches)	
Water Table Present? Yes No X Depth (Inches)	
Saturation Present? Yes No Depth (inches)	: Welland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photo	s previous inspections) if available:
Describe (Cooked State (Stream grays), marketing well, admin prise	ы, растины парышы пары н а тольшо.
Remarks	

Tree Stratum (Ptol size:)	Absolute	Dominant Species?		Dominance Test worksheet:
	36 Cover	Speciest	. Ciaus	Number of Dominant Species
	***************************************	***************************************		That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant 3
3,		***************************************	*****************	Species Across All Strata: (B)
4,			-	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 33 (A/B)
6				
				Prevalence Index worksheet:
7,		***************************************	***************************************	Total % Cover of Multiply by:
	<del></del>	= Total Co	ver	OBL species 20 x1 = 24  FACW species 20 x2 = 40
Sapling/Shrub Stratum (Plot size:)	-	. 1		
1. Dimus Strabus	2	<u>N</u>	FALL	FAC species
2				FACU species 47 x 4 = 188
3.				UPL species
				Column Totals: <u>93</u> (A) <u>254</u> (B)
<b>4.</b>				Prevalence Index = B/A = 2-7
6		***************************************		Hydrophytic Vegetation Indicators:
			***************************************	1 - Rapid Test for Hydrophytic Vegetation
7				
		= Total Co	ver	2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)		13		4 - Morphological Adaptations (Provide supporting
1. Rubus hispidus	20		EALLY	data in Remarks or on a separate sheet)
2. Potentille Simpley		<del>- Ĭ.</del>	FALLY	Problematic Hydrophytic Vegetation¹ (Εφlain)
3. carex Uniprovidea	15	<u> </u>	<u>08L</u>	In directions of building only one configuration of buildings on the
4. Sciepus caperinas	1	$\underline{N}$	OBL	'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Calamagrostic Canadassis	10	N	SBL	Definitions of Vegetation Strata:
6. Pac compression	20	$\overline{V}$	TALL	Demputors of Vagetation Susta.
1 -		J	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Schizaehyrium scoparium		***************************************		at breast height (DBH), regardless of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.26 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
	91	= Total Co	nr&f	height,
Military to the State Charles of		- Ida Co		
Woody Vine Stratum (Plot size:)				
1				
2				
3.				Hydrophylic
4.		-		Vegetation   Present?   Yes   No
		= Total Co	wer	103
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	ription: (Describe	to the dep	th needed to docum	ent the	indicator	or confirm	n the absence of Indicators.	
Depth	Matrix	%		Feature		l é n°	Tardura	Damaska
(inches) 0 - 7	1046 4/3		Color (moist)	<u>*</u>	Type	<u>Loc*</u>	1 1	Remarks
2 0	- Land Company	100	1040 4/6			<u>O:</u>		
4-1		99	104B 4/6			PL	54.3	
9-15	104R4/1	100		***************************************			Sandy Wan aray	ell of
***************************************	***************************************		***************************************		-		***************************************	
40450411741144444444444444	والمراجع وا	<u> </u>	and the second s	<del>(0.00.00000000000000000000000000000000</del>	. Marini mari	gainman airint main.		delicana i content in l'antitra militare anno actual medici di internità di in
40,000						(10000000000000000000000000000000000000		
							***************************************	
•	-			***************************************	-	***************************************		
		-		-			<del>}</del>	<u></u>
		* *************************************	***************************************	***************************************	***************************************	***************************************		
***************************************	***************************************	-	***************************************	***************************************				
PROMORPHISM CONTRACTOR AND CONTRACTO	en distribution de l'experience de la production de la pr	letion, RM	=Reduced Matrix, MS	=Masked	d Sand Gra	ins.	<sup>2</sup> Location: PL=Pare Lin	
Hydric Soll I			Polyvalue Below	Qurione	/S81/I DI	<b>,</b> b	Indicators for Problemat 2 cm Muck (A10) (LR	_
	ipedon (A2)		MLRA 1498)		(30) (EIV	· N.	Coast Prairie Redox	
Black Hi			Thin Dark Surface					Peat (S3) (LRR K, L, R)
	n Suifide (A4) i Layers (A5)		Loamy Mucky M Loamy Gleyed N			, L)	Dark Surface (S7) (Li Polyvalue Below Surf	
· —	i Below Dark Suriac	c (A11)	Depleted Matrix		.,		Thin Dark Surface (S	
	rk Surface (A12)		Redox Dark Sur				-	ses (F12) (LRR K, L, R)
-	lucky Mineral (S1) Neyed Matrix (S4)		Depleted Dark S Redox Depressi				-	Sois (F19) (MLRA 1498) MLRA 144A, 145, 1498)
,	edax (S5)		Troddi Dopross.	J.12 (1 J)			Red Parent Material (	
	Matrix (S6)						Very Shallow Dark Se	
Dank Su	rface (S7) (LRR R, N	ALRA 149	B)				Other (Explain in Ren	narks)
3Indicators of	hydrophytic vegetal	tion and w	elland hydrology musi	t be pres	ent, unless	s disturbed	for problematic.	
ł	Layer (If observed):			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	·····						House Sell Servers	esNo_X
ANNOTO CALLO CADA MANAGEMENTO CALLO CONTO	ches):		<mark>antidade mandida establ</mark> Nadas Actividade Nadas (nadas constitutos per la distribución de la constituto de la constituto de la constitu		nanumanian trakahoran dan melancan atria	enalisculoicelle Nationice (1997) notablet	Hydric Soll Present? Y	<b>63</b> NO
Remarks:								
Δ	efusul at		pri II					
h	etusul at	(	>					



DIRECTION	FEATURE ID	078D1	DATE
South	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/24/2012



DIRECTION	FEATURE ID	078D2	DATE
North	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/24/2012

#### COMMENTS

Wetland is located adjacent to Pea Creek.



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region Project/Site: Strun Lublin City/County: Ear Claire Co Sampling Date: 9/24/12

Applicant/Owner: DPC State: WI Sampling Point: 080D1 Section, Township, Range: 53 T25N R5W Investigator(s): ICB + AU Landform (hillstope, terrace, etc.): delivers on Local reflet (concave, convex, none): Concave Stope (%) Subregion (LRR or MLRA): LRK K Lat: 44 40 35, 21 Long: -90 57 45.21 Datum: NAD 83 Soil Map Unit Name: Ludinaton - Humbird Soils NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_\_ No\_\_\_\_\_ (If no, explain in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area \_\_ No\_\_\_ Hydrophytic Vegetation Present? within a Wetland? Hydric Sail Present? \_\_ No \_\_\_\_ Yes Welland Hydrology Present? No\_\_\_\_ Yes / 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) \_\_\_ Surface Soil Cracks (B6) Primary Indicators (minimum of one is required, check all that apply) \_\_\_ Drainage Patterns (B10) Surface Water (A1) Water-Stained Leaves (89) \_\_\_ Moss Trim Lines (B16) \_\_\_\_ Aquatic Fauna (B13) \_\_ High Water Table (A2) \_\_\_ Marl Deposits (B15) \_\_\_ Dry-Season Water Table (C2) Saturation (A3) \_\_\_ Hydrogen Sulfide Odor (C1) \_\_\_ Crayfish Burrows (C8) Water Marks (B1) Oxidized Rhizospheres on Living Roots (C3) \_\_\_\_ Saturation Visible on Aerial Imagery (C9) \_ Sediment Deposits (B2) \_\_ Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Seomorphic Position (D2) Recent Iron Reduction in Titled Soils (C6) \_\_\_\_ Algai Mat or Crust (B4) \_\_\_ Iron Deposits (B5) \_\_\_ Thin Muck Surface (C7) \_\_\_ Shallow Aquitard (D3) \_\_\_ Inundation Visible on Aerial Imagery (B7) \_\_\_ Other (Explain in Remarks) \_\_\_ Microtopographic Relief (D4) X FAC-Neutral Test (D5) \_ Sparsely Vegetated Concave Surface (B8) Field Observations: Yes \_\_\_\_ No X Depth (Inches): \_\_\_\_ Surface Water Present? Yes No Depth (inches):
Yes No Depth (inches): Wetland Hydrology Present? Yes No No Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks

#### VEGETATION - Use scientific names of plants.

Sampling Point: 08001

	Absolute			Dominance Test worksheet:
Tree Stratum (Ptot size:)		Species?		Number of Dominant Species
1.		***************************************	****	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Takel Mirroles of Description
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:
	<del>*************************************</del>	= Total Co	ver	OBL species x1 =
Sapling/Strub Stratum (Plot size:)				FACW species x 2 =
1. Rubis Idaeus	15	V	FALL	FAC species x 3 =
Construction of the second	~		FACU	FACU species x 4 =
2 Spilaca alba			INEW	UPL species x 5 =
3.				Column Totals: (A) (B)
4				Codini rocais(A)(O/
				Prevalence index = B/A =
5		***************************************		
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	14	= Total Co		≥ 2 - Dominance Test is >50%
	1.65	= Total Co	VEI	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)	n			4 - Morphological Adaptations' (Provide supporting
1. Scirpus cyperinus	25	<u> </u>	<u>081</u>	data in Remarks or on a separate sheet)
2. Glycoma Canadensis	20	4	OBL	Problematic Hydrophytic Vegetation (Explain)
Davis		<del></del>	08L	
3. Persicaria sagittata	<u> 1</u>	<u> </u>		Indicators of hydric soil and welland hydrology must
4.	_			be present, unless disturbed or problematic.
5				Part of the second of the seco
				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				Sapting/shrub - Woody plants less than 3 in. DBH
				and greater than or equal to 3.26 ft (1 m) tall.
9				
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
	Tion	= Total Co		height.
	UU	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1,				
2.	<u> </u>			
3,				Hydrophylic
4.				Vegetation Present? Yes No
		= Total Co	with	Present? Yes No
Remarks: (Include photo numbers here or on a separate	chant 1	TO(4) O(		
Remarks, fincidae photo numbers here or on a separate	Serect.)			

Profile Besc	ription: (Describe t	o the der	th peeded to docum	nent the i	ndicator	or confirm	the shearce	of indicators )
Depth	Matrix	V 11 10 10 10 10 10 10 10 10 10 10 10 10		x Feature		O. 00		, , , , , , , , , , , , , , , , , , , ,
(inches)	Color (moist)	96	Color (moist)	*6	Туре	Loc*	Texture	Remarks
0-2								DIAGASC
7-5	104R 4/2	90	1046316	2.		PI	Siltych	
5-9	2,5 2.5 M	95	104R 3/3	5		PL	5 Helmlon	n Slightly Mucky
9-14	104R 4/2	75	W4R3/1	25	$\overline{\Gamma}$	M	5.1	Sticake
4 9	ID IN 12		10 1100 11				Juro	3110012
***************************************	<u> Emilia III de la cida de la cid</u>	-				***************************************		
	***************************************							
							-	
4			***************************************			***************************************		
			***************************************			***************************************		
17							2111	Di Desa faire Maldativ
Hydric Soll I	oncentration, D=Dept	etion, KM	=кедисед матлх, м	S=MASKEC	sana Gr	8:N3		: PL=Pore Lining, M=Matrix. for Problematic Hydric Solis*:
Histosol			Polyvalue Belov	w Surface	(S8) (LRI	RR.		luck (A10) (LRR K, L, MLRA 1498)
	olpedon (A2)		MLRA 1498		(00) (211	,		Prairie Redox (A16) (LRR K, L, R)
	stic (A3)		Thin Dark Surfa	ice (59) (l	RR R, M	LRA 1498		lucky Peat or Feat (S3) (LRR K, L, R)
1	n Sulfide (A4)		∠ Loamy Mucky I			L, L)		ourface (S7) (LRR K, L, M)
	i Layers (A5) i Below Dark Surface	(A 11)	Loamy Gleyed Depleted Matrix		!}			lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
	ark Surface (A12)	(/////	Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
1	fucky Mineral (S1)		Depleted Dark					ont Floodplain Soils (F19) (MLRA 1498)
	Bleyed Matrix (S4)		Redox Depress	ions (F6)				Spodic (TA6) (MLRA 144A, 145, 1498)
1	tedox (S5)							arent Material (F21)
	l Matrix (86) rface (87) (LRR R, M	II RA 140	Ri					haliow Dark Surface (TF12) (Explain in Remarks)
	inace (S) / (E)(I) II, ii	E112 143	5,					and the second s
3Indicators o	f hydrophytic vegetat	on and w	etland hydrology mus	st be presi	ent, unles	s disturbed	or problematic	3.
Restrictive	Layer (if observed):							
Туре:								$\checkmark$
Depth (in-	ches):	×41-11-11-11-11-11-11-11-11-11-11-11-11-1	<del>apperance</del>				Hydric Soll	Present? Yes No
Remarks			akanimenteka enemaki akao eru-koji kon este kisopia este eri este este este enemaki e	turken eigen sich der geber gestellt der Geber der		DEVELOCIONE NE PROBLEMO DE PRINCIPARIO DE LA CONTRACIONA DEL CONTRACIONA DE LA CONTRACIONA DEL CONTRACIONA DE LA CONTRACIONA DEL CONTRACIONA D	an in the second se	на учения дости премы высычность обще выше отстой и первы поветь общенного в технового со отностью поветь обще Поветь поветь

WETLAND DETERMINATION DATA FOR	_ , ,
Project/Site: Stun Lublin citylog	ounty: <u>Ear Claire Co</u> sampling Date: <u>9/24/12</u>
Applicant/Owner: VPC	State: NI Sampling Point: 080DZ
	n, Township, Range: <u>53 T25N R5W</u>
Landform (hillslope, terrace, etc.): Dland Local retie	ef (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): LRR Lat: 44 40 34	.46 Long: <u>-96 57 45.15</u> Datum: <u>NAD 85</u>
Soil Map Unit Name: Luding ton + Humbird So	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Ye	s X No (If no, explain in Remarks.)
Are Vegetation	ed? Are "Normal Circumstances" present? Yes No
Are Vegetation N. Soil N. or Hydrology N naturally problemat	tic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sam	pling point locations, transects, important features, etc.
Hydric Sail Present?	Is the Sampled Area within a Wetland? Yes No If yes, optional Wetland Site ID
Remarks: (Explain alternative procedures here or in a separate report.)	ii yes, opdolar wedana ole to.
Structur # 90 Photo # 122	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (86)
Surface Water (A1) Water-Stained Leaves	
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Mart Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odd	
Sediment Deposits (B2) Oxidized Rhizosphere Drift Deposits (B3) Presence of Reduced	
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 Y Depth (Inches):	
Surface Water Present? Yes No Depth (Inches):  Water Table Present? Yes No Depth (Inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre-	rious inspections), if available:
Remarks;	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Ptol size:)	% Cover	Species?	Status	Blumbac of Demiseral Country
1.				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3.				Total Number of Dominant   Species Across All Strata:   (B)
4.				Description of Description
				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5.				
6.				Prevalence Index worksheet:
7,		***************************************		Total % Cover of Multiply by:
	***************************************	= Total Co	ver	OBL species x1 =
Sapting/Shrub Stratum (Plot size:)				FACW species x 2 =
1. Prous resinosa		N	FACU	FAC species x 3 =
2 Piaco Strobus		N	FACU	FACU species x 4 =
3. Quercas rubra		W	FACU	UPL species x 5 =
	•			Column Totals: (A) (B)
4.				Decembrace Index: DIA
5.	-			Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
	3	= Total Co	ver	2 - Dominance Test is >50%
Hack Oleaking (Dietains)				3 - Prevalence Index is ≤3.0 <sup>3</sup>
1. Rubus hispidus	20	Y	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Botrypus virginianus		7	TACH	Problematic Hydrophytic Vegetation* (Explain)
1.04. [1]		- W	FAKU	
4 Brickellia enpertoriodes		W	LIPL	Indicators of hydric soil and welland hydrology must
*		· <del>- 5</del>		be present, unless disturbed or problematic.
5. Calagramas tis Carrolasis			DIDL	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	-		a <i></i>	Woody vines - All woody vines greater than 3.28 ft in
	69	= Total Co	ver	height,
Woody Vine Stratum (Flot size:)		-		
1				
2.	-	-	-	
3			-	Hydrophylic
4.	-	-		Vegetation Present? Yes No
		= Total Co	over	<del>/</del>
Remarks: (Include photo numbers here or on a separate	sheet.)	yanga panangi kina minaki Diri		
1				

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the it	ndicator	or confirm	the absence of I	Indicators.)
Depth	Matrix			Features				·
(inches)	Color (molst)	<u> 96 </u>	Color (moist)		Type	Loc*	Texture	Remerks
0-6	1014,1	100					Suraly los	2.74
6-9	1042/2	160					Sand	
9-17	7.542314	100					100 mu Sa	nd
17-19	1042 46	100						d
		-		***************************************		<del>1994</del>		**************************************
***************************************	<del>(para anticione mpressa anticiona à maria anticonde ma</del>	-		***************************************		delder), mericini, maria		rie kropenski klument urvijanst kleis in kleiste die denskrafen kan kan in erwen solde Geofera proliti den dramski denskramski selekular
	<del></del>	-	***************************************	***************************************		***************************************	Security of the security of th	
							***************************************	
	***************************************							
***************************************						***************************************		
	***************************************		<b>**</b>	<del>(100-10-20-20-20-20-20-20-20-20-20-20-20-20-20</del>	***************************************	***************************************	-	
Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains	<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soll	Indicators:							Problematic Hydric Solis <sup>5</sup> :
Histosol	• •	-	Polyvalue Below		(S8) (LRF	R,		k (A10) (LRR K, L, MLRA 149B)
	olpedon (A2) stic (A3)		MLRA 1498) Thin Dark Surfa		00 P MI	DA 44003		life Redox (A16) (LRR K, L, R) ky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)	-	Loamy Mucky W					ace (S7) (LRR K, L, M)
1	d Layers (A5)	_	Loamy Gleyed I			, -,		Below Surface (S8) (LRR K, L)
Deplete	d Below Dark Surface	(A11)	Depleted Matrix				Thin Dark	Surface (S9) (LRR K, L)
	ark Surface (A12)	-	Redox Dark Sur				-	janese Masses (F12) (LRR K, L, R)
	Aucky Mineral (\$1)	-	Depleted Dark S		7)			Floodplain Soils (F19) (MLRA 1498)
	Sleyed Matrix (S4)	-	Redox Depressi	ons (F8)				odic (TAG) (MLRA 144A, 145, 149B)
***************************************	tedox (\$5) I Matrix (\$6)							nt Material (F21) Iow Dark Surface (TF12)
	rface (S7) (LRR R, M	LRA 149B;	)					plain in Remarks)
Jan diameters of	f hydrophytic vegetati		land of the order of a constraint	• ha neasa		and and confirmation	ar a rabiam alia	
I	Layer (If observed):	CH SILL WEL	ianu nyos crogy mus	ne hiese	IR, UINCS:	G SUIDCO	or problematic.	
1								\_
Depth (in	ches):						Hydric Soll Pre	esent? Yes No
Remarks	midennosticum controlerennosticico de la controleren de la control	sionne en	eli terchinateus delinimasiinis riibtimatiinen eitä määlli linuvi 1999-listikuust.	entania (totropia) (totoleo	el escerimental cuerto se mesti musci	teribilitate Florite transport Control Control	<ul> <li>Response Activistic distribution in the resolution of the designation of the contraction of the</li></ul>	acception in the finance of the contract acception and a state of the contract and the contract acceptance of the contract accept
I								



DIRECTION	FEATURE ID	080D	DATE
Southwest	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/24/2012

081D

WETLAND DETERMINATION DATA FO	ORM - Northcentral and Northeast Region
Projecusite: Strum Lublin city	County: Ear Claire Co Sampling Date: 9/24/12
Applicant/Owner: DPC	State: WI Sampling Point: 08(D)
	tion, Township, Renge: 53 T25N R5W
Landform (hillstope, terrace, etc.): Ochresiun Local re	Hief (concave, convex, none): Concaule Slope (%):
Subregion (LRR or MLRA): LAR - Lat: 44 40 C	12.27 Long: <u>90 57 45.16 Datum: NAO83</u>
Soil Map Unit Name: Lucinator & Hombird So	
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation N. Soil N. or Hydrology N. significantly distu	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation N. Soil N. or Hydrology N naturally problem	
	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Yes X No Yes You No Yes Yes You No Yes Yes You No Yes Yes You No Yes	is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present? Yes No No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Shuchre 92 Photo # 125, 126	
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 Leav High Water Table (A2) Aquatic Fauna (B13	
Saturation (A3) Mari Deposits (B15	
Water Marks (B1) Hydrogen Sulfide C	· · · · · · · · · · · · · · · · · · ·
Sediment Deposits (B2) Oxidized Rhizosphe	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduc	ed Iron (C4) Stunted or Stressed Plants (D1)
	tion in Titled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ri Sparsely Vegetated Concave Surface (B8)	emarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	<u></u>
Surface Water Present? Yes No X Depth (Inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	
Remarks.	
1	

	Absolute	- Caralanah	1		
Tree Stratum (Plot size:)	Absolute % Cover	Species?	Indicator Status	Dominance Test worksheet:	
	2-	•		Number of Dominant Species	
1.			***************************************	That Are OBL, FACW, or FAC:(A)	
2				- 4.14	
				Total Number of Dominant Species Across All Strata: (B)	
3.				Operes Across Arristata. (b)	
4.				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: (A/I	3)
			***************************************		
6.				Prevalence Index worksheet:	
7.				Total % Cover of Multiply by:	
		= Total Co	ver	OBL species x 1 =	
	•			FACW species x 2 =	
Sapling/Shrub Stratum (Plot size:)				- 1000000000000000000000000000000000000	
1.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			FAC species x 3 =	
2				FACU species x 4 =	
				UPL species x 5 =	
3.	-		-	Column Totals: (A) (B	()
4				1	
5.				Prevalence Index = B/A =	
6.				Hydrophytic Vegetation Indicators:	
7				1 - Rapid Test for Hydrophytic Vegetation	
· .				2 - Dominance Test is >50%	
		= Total Co	ver	3 - Prevalence Index is ≤3.0°	
Herb Stratum (Plot size:)		. 1			
1. Calama arostis canadassis	10	4	Chi	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	ng
Net'		W	OBL		
2 Sciepus Cuparinus	<u> </u>		OUL	Problematic Hydrophytic Vegetation1 (Explain)	
3. Fragatia Vilamiana		N	FACY	1	
4 Rubus i daeus	5	N	FACU	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.	
		<del></del>	FACW	be present, unless assurbed of problematic.	
5. Botrychium lanceolatum			1777	Definitions of Vegetation Strata:	
6. Druppteris Cristata	10	$\mathcal{L}$	DBL.		
7. Potentila Simplex	1	N	FACU	Trae – Woody plants 3 in. (7.6 cm) or more in diamet	er
			***************************************	at breast height (DBH), regardless of height.	
8. Rubus Nispidus		<u> </u>	FACW	Sapting/shrub - Woody plants less than 3 in. DBH	
9				and greater than or equal to 3.28 ft (1 m) tall.	
				I I all all brokens are considered attacks as a second	
10				Herb All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.	15
11,				or see, and mosely plants loss than a zall tall,	
12.				Woody vines - All woody vines greater than 3,25 ft i	en .
	lata	= Total Co	n rie P	height,	
	1000	, - Total Co	VCI		
Woody Vine Stratum (Plot size:)					
1,					
3					
2.		-			
3.				Hydrophylic	
4.				Vegetation Present? Yes No	
		= Total Co		Present? Yes No	
49		- Total Co	(VG)	,	
Remarks: (Include photo numbers here or on a separate s	ineet.j				

Profile Desc	ription: (Describe i	to the dep	th needed to docum	nent the I	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Feature				<b>-</b>
(inches)	2,54 3/1	<del>%</del>	104R 3/6		Type	Loc	Texture	Remarks
0-6	Z	98	109K 70	2		PL	Si Hy Clay	Toxin
8-14	104R5/2	100	5	·	***************************************	***************************************	Sand	913-04-11-11-11-11-11-11-11-11-11-11-11-11-11
12-17	104R3/1	/00					SAND	
17-20	2.54 5/2	100	The second secon	·			Sul	**************************************
					-			
***************************************				· ·	•			
	***************************************	***************************************	***************************************					
					·			-
			***************************************					
			***************************************	-				.
***************************************		-		*		***************************************	******************	<del></del>
				-				
	oncentration, D=Dep	letion, RM	=Reduced Matrix, NS	S=Masked	i Sand Gr	8/03		: PL=Pore Lining, M=Matrix.
Hydric Soll I			Polyvalue Belov	v Surface	(S8) (LR)	7 R		for Problematic Hydric Solis <sup>3</sup> : Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 1498)		,00,(1			Prairie Redox (A16) (LRR K, L, R)
	stic (A3)		Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4) I Layers (A5)		Loamy Mucky M Loamy Gleyed			, L)		Surface (S7) (LRR K, L, M) Nue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	e (A11)	Depleted Matrix	(F3)			Thin D	Park Surface (S9) (LRR K, L)
	ark Surface (A12)		★ Redox Dark Sur  Contact Contact  Contact	, ,				langanese Masses (F12) (LRR K, L, R)
	lucky Mineral (\$1) Bleyed Matrix (\$4)		Depleted Dark 3 Redex Depress		-/)			ont Floodplain Soils (F19) (MLRA 1498) Spodic (TA6) (MLRA 144A, 145, 149B)
	ledox (S5)							arent Material (F21)
	Matrix (S6)	41 84 440	•					Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	1491 1491	3)				Cuner	(Explain in Remarks)
	f hydrophytic vegetat		tiand hydrology mus	st be prese	ent, unles:	s disturbed	or problematic	g.
	Layer (If observed):							
Type:	-1						Hydric Soil	Present? Yes X No
Remarks:	ches):						TIYOTTE CON	
remans.								
l								

	ORM - Northcentral and Northeast Region
Project/Site: Strum Lublin City	Modulity: Edy Claire Co Sampling Date: 9/24
Applicant/Owner: DPC	State: VI Sampling Point: 08/02
Investigator(s): KB+AJ Sec	ction, Township, Range: 53 T25U R5W
	refief (concave, convex, none): 100 / C Stope (%) 3
	11,60 Long: 905745,21 Datum: NAD 83
	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation M., Soil M., or Hydrology M. significantly dist	
Are Vegetation	matic? (If needed, explain any answers in Remarks.)
	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks: (Explain afternative procedures here or in a separate report.)	If yes, optional Wetland Site ID:
Pholo # 127	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (96)
Surface Water (A1) Water-Stained Lea	<del></del>
High Water Table (A2) Aquatic Fauna (B1	· · · · · · · · · · · · · · · · · · ·
Saturation (A3) Mail Deposits (B15)	-
Water Marks (B1) Hydrogen Sulfide C	Odor (C1) Crayfish Burrows (C8)  ieres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Sediment Deposits (B2) Oxidized Rhizosph Drift Deposits (B3) Presence of Reduc	
	ction in Titled Soits (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in R	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	addentificación de constituent de la constituent del constituent de la constituent d
Water Table Present? Yes No Yes Depth (Inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	previous inspections), if available:
Remarks,	
Kenidi ks.	

	Absolute	Dominar	nt Indicator	T
Tree Stratum (Plot size:)			? Status	Dominance Test worksheet:
	<u> </u>	***************************************		Number of Dominant Species
1,		<u></u>		That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3,				Species Across All Strata:(B)
4				Devices of Devices & Cassina
				Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
5				1700770 000,171011, 011710
6			-	Prevalence Index worksheet:
7				Total % Cover of Multiply by:
		= Total C		OBL species x1 =
	* harry -parents	- rotal C	J46)	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				
1.	-			FAC species x 3 =
2				FACU species x 4 =
				UPL species x 5 =
3,				Column Totals: (A) (B)
4.				
- 5.				Prevalence index = B/A =
6,				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
		≖ Total C	over	
Herb Stratum (Plot size:)				3 - Prevalence Index is £3.0°
1. Rubus hispidus	27	4	FACH	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
		<u> </u>		•
2 Botrypus virginianus		<u> </u>	FACU	Problematic Hydrophytic Vegetation* (Explain)
3. Romus ciliatus	25	<u> </u>	EACU	
4. Patentila Simplex	3	N	FACU	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
	7	N	***************************************	be present, onless assurbed of prodemand.
5. Calamaginstis Canadensis			- <del>1</del>	Definitions of Vegetation Strata:
6. Carex Stricts		. <u>N</u>	<u> 0BL</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7.				et 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.	*** ***********************************		ole advanced in the second	Woody vines - All woody vines greater than 3.28 ft in
12.				height.
	(0)	= Total C	over	
Woody Vine Stratum (Plot size:)				
1,				
3,	<del></del>			Hydrophylic
4.				Vegetation Present? Yes No
		= Total C	CHARL	Present? Yes No
Remarks: (Include photo numbers here or on a separate	enant 1	_ ~ 10a; 0		
Remarks; (include prioto numbers here or on a separate	S(ICCL.)			

inches)	<u> Matrix</u>			x Features	5					
n 0	Color (molst)	%	Color (moist)		Type	Loc*	Texture	***************************************	Remarks	<u> </u>
>-'2	1048 41	100					<u> Shedy I oa</u>	N.		
2=11	10425/2	100	***************************************	-	D	***************************************	Sura	****	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
- 14	104R 4/3	100					Sand			
4-20	2,54 7/3	100-90	1044.5/8	0-10				incre	sita re	doe with dep
		,			•	***************************************	, , , , , , , , , , , , , , , , , , ,	***************************************	0	· · · · · · · · · · · · · · · · · · ·
	***************************************		Associated and control and con		***********			***************************************	·····	
	444				***************************************	***************************************		***************************************		
			4-1-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-							
	#NOTE: 11 11 11 11 11 11 11 11 11 11 11 11 11		-		***************************************			***************************************		
			******************************	-	***************************************	***************************************			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
					****					
ype: C=C	oncentration, D=Dep	oletion, RM	=Reduced Metrix, M	S=Masked	Sand Gr	ains	<sup>2</sup> Location	PL=Pore	Lining, M=M	atrix.
ydric Soli I	Indicators:								natic Hydri	
Histosol	(A1) olpedon (A2)		Polyvalue Belo MLRA 1498		(S6) (LR	RR,			LRR K, L, N ox (A16) (LR	NLRA 149B)
Histor Ep. Black Hi			Thin Dark Surfi	•	.RR R, M	LRA 149B)				(R. R. L. R.) (LRR K, L, R)
Hydroge	n Sulfide (A4)		Loamy Mucky	Mineral (F1	) (LRR H		Dark S	urface (S7)	(LRR K, L,	M)
	d Layers (A5) d Refore Dark Series	- (A11)	Loamy Gleyed Depleted Matri		)				Surface (\$8)	
	d Below Dark Surfac ark Surface (A12)	C (MII)	Redox Dark St						(S9) (LRR I 1asses (F12	N, L) )(LRR K, L, R)
	lucky Mineral (\$1)		Depleted Dark		7)					9) (MLRA 1498)
	Heyed Matrix (S4)		Redox Depres	sions (F8)						I4A, 145, 149B)
Sandy R Stripped	recox (SS)   Matrix (S6)						-	rent Materi haliow Dark	al (F21) : Surface (Ti	F12)
	rface (S7) (LRR R, I	MLRA 149	3)				Other (			,
			allian of the other plants are sure.	** ***		ر المرجوعات والمراجع المرجوع	والمراجع والمراجع والمراجع			
	l hadrenbakin ala ummata	LICH BILLIM	aranu nyurulogy mu	arne heese	III, UNICS	S D SUIDEO	or proteinanc			
ndicators of	l hydrophytic vegeta Layer (if observed)									
ndicators of estrictive t		:								1 .
ndicators of estrictive t Type:	Layer (If observed)	*					Hydric Soll	Present?	Yes	No
ndicators of estrictive t Type:	Layer (If observed)	*		edvelministiscus sissiem säisekeeleen sissiem	consection de la constitución de	háide na leiche na sinn an de dhealach an na bhaile na leiche na sinn an dheach a na shealach an sinn an dheach an an an dheach an an an dheach an an dheach an an an dheach an	Hydric Soll	Present?	Yes	No
ndicators of estrictive t Type:	Layer (If observed)	*		n söveli mitte kallanda saasi missää kallanda saasi missää kallanda saasi missää kallanda saasi missää kalland	COM-COPTE A CARBON CO COPTE A BASIN CO	All-residents in the control of the	Hydric Soll	Present?	Yes	No
ndicators of estrictive t Type:	Layer (If observed)	*		s freð mit með skar mellinn svik Annsk einn kvæmt skar hannsk einn kvæmt skar hannsk einn kvæmt skar hannsk ei	company na delida em cricinaria de as	Na-relación en tradación en contractor en tradación en contractor en tradación en contractor en tradación en c	Hydric Soll	Present?	<b>Yes</b>	No
ndicators of estrictive t Type: Depth (inc	Layer (If observed)	*		uded the equipment and aboundance consistency and a second a second and a second and a second and a second and a second an	COMPLETE MARKET PROTECTION AND ART TO STOTMARK	ta-enciente de la constitución d	Hydric Soll	Present?	Yes	No
ndicators of estrictive t Type: Depth (inc	Layer (If observed)	*		vindereadus ester astondunenas	EUPALOTE MARININO O O O O O A A A Z	kin-diana aran menandindakan kila-banara	Hydric Soll	Present?	Yes	No
idicators of retrictive t Type: Depth (inc	Layer (If observed)	*		erinderendarressimmatikondummasaa	sukkaterindeki eta torona akeka		Hydric Soll	Present?	Yes	No
idicators of retrictive t Type: Depth (inc	Layer (If observed)	*		nicht medice staff mit ferne de emme	Land Activity Mades in the Commission of Activity		Hydric Soll	Present?	Yes	No
ndicators of estrictive t Type: Depth (inc	Layer (If observed)	*		ender autor autor discondunceau	инатем да потпада по	/	Hydric Soli	Present?	Yes	_ No
ndicators of estrictive t Type:	Layer (If observed)	*		erialen zieltur saturunapiuvid venness	undananan oordana		Hydric Soli	Present?	Yes	No X
ndicators of estrictive t Type: Depth (inc	Layer (If observed)	*			umannadan simila ad		Hydric Soli	Present?	Yes	No X
ndicators of estrictive t Type:	Layer (If observed)	*			antaronia anti mana antaroni		Hydric Soli	Present?	Yes	No
ndicators of estrictive t Type:	Layer (If observed)	*		ander explore exercise conductive constant	unitario assersi monta asser		Hydric Soli	Present?	Yes	No
ndicators of estrictive t Type: Depth (inc	Layer (If observed)	*		entales autor autor autor de un nace			Hydric Soli	Present?	Yes	_ No
idicators of retrictive t Type: Depth (inc	Layer (If observed)	*				/	Hydric Soli	Present?	Yes	No



DIRECTION	FEATURE ID	081D	DATE
North	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/24/2012

082D

	A FORM – Northcentral and Northeast Region
Project/Site: Strum Lublin	City/County. Fam Claric Co Sempling Date: 7/24/12
Applicant/Owner: DPC	1. T
	Section, Township, Range: S3 T25U R5W
	ocal relief (concave, convex, none):
	54,82 Long: -90 57 44,81 Datum: NAD83
	Soil 5 NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of y	
	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation // Soil // or Hydrology // naturally p	
•	
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes You No Yes Yes You No Yes Yes You No Yes Yes You No Yes	Is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain atternative procedures here or in a separate rep	
Photo # 128, 129 HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	Surface Soil Cracks (96)
Surface Water (A1) Water-Stained	d Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Faunt	
✓ Saturation (A3) Mart Deposits	
Water Marks (B1) Hydrogen Sul	
	cospheres on Living Roots (C3) Saturation Wisible on Aerial Imagery (C9)  Reduced Iron (C4) Stunted or Stressed Plants (D1)
	Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Su	
Inundation Visible on Aerial Imagery (B7) Other (Explain	n in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (BB)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inche	):
Water Table Present? Yes X No Depth (Inche	):
Saturation Present? Yes X No Depth (inche (includes capillary fringe)	es): Welland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks.	

***************************************	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Ptot size:)	% Cover Species? Status	Number of Dominant Species
1.		That Are OBL, FACW, or FAC:(A)
2		
3		Total Number of Dominant Species Across All Strata: (B)
		1,,
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 Cover	
	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)		FACW species x 2 =
1.		FAC species x 3 =
2		FACU species x 4 =
3		UPL species x 5 =
		Column Totals: (A) (B)
4		Branch and Francis BIN a
5.	-	Prevalence Index = B/A =
6,		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
f i		2 - Dominance Test is >50%
	= Total Cover	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size)	50 4 OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Carex Streta 2. Junes tenus	D P FAC	data in Remarks or on a separate sheet)Problematic Hydrophytic Vegetation* (Explain)
		Problement Hydrophysic Vegetation (Explain)
3. Eleorharis Obtasa	,	Indicators of hydric soil and welland hydrology must
4. Persicaria Sagittata	<u> </u>	be present, unless disturbed or problematic.
5		Profesional and State and
		Definitions of Vegetation Strata:
6.		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7.	www.mananananananananananananananananananan	at breest height (DBH), regardless of height.
8		Sapiling/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.
	75 = Total Cover	
Woody Vine Stratum (Plot size:)		
1,		
4.	**************************************	
3.		Hydrophytic
4.		Vegetation Present? Yes No
	= Total Cover	Fiese(K)
Remarks: (Include photo numbers here or on a seperate	sheet.]	
Tremaine, (metal printer)		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix Called (malet)			x Feature:		1	T		O	
(inches)	Color (moist)	<u>%</u>	Color (molst)	<u>*</u>	Type	_Loc"	Texture		Remarks	
10-3	2.59 12	100	2.21				Sand	$-E_{\cdot}$	**************************************	-
3-8	2.544/1	<u>93</u>	104B 3/6	7		<u>PL</u>	clay	lote	of old	~ ~ · C ~
8-20	2.545/	100					10 my sor		`	<i>\$</i>
		-			***************************************					
	£	-	***************************************	-	***************************************	***************************************	<del></del>			
		nie destributionistatus			-	***************************************	***************************************	***************************************		
	<del>i</del> :		***************************************	-	***************************************					
	***************************************							***************************************		
	**************************************									
	<del></del>					***************************************	***************************************	***************************************	***************************************	
***************************************		·· ·	***************************************		***************************************		***************************************		~~~	····
				-						
Type: C=C	oncentration D=Dea	oletion RM	=Reduced Matrix, MS	S=Masked	Sand Cr		2Location:	PI =Pore	Lining, M≃Matr	iy
Hydric Soll		Sections and the section of the sect	-Neodeed Mining Inc	J-1180 JAC D	Con Ca	00000000000000000000000000000000000000			matic Hydric S	
Histosol	(A1)		Polyvalue Belov	v Surface	(\$6) (LRI	R.	2 cm M	iuck (A10)	(LRR K, L, MLI	RA 1498)
	olpedon (A2)		MLRA 1498)						ox (A16) (LRR	
1	stic (A3)		Thin Dark Surfa		-			-	or Peat (S3) (L	
	n Sulfide (A4) d Layers (A5)		Loamy Mucky & Loamy Gleyed I			, L)			i (LRR K, L, M) Surface (S8) (Li	
1	d Below Dark Surface	æ (A11)	Depleted Matrix		,		-		(S9) (LRR K, I	
	ark Surface (A12)		Redox Dark Sur						Masses (F12) (l	
·	fucky Mineral (\$1)		□ Depleted Dark S     ☐ X     Redox Depress		7)				ain Sois (F19)	
1	Heyed Matrix (S4) tedox (S5)		★ Redux Depress	ions (Fo)				rent Mater	6) (MLRA 144 <i>4</i> lal (F21)	i, 140, 149 <b>6</b> )
	Matrix (S6)								k Surface (TF12	2)
Dark Su	rface (S7) (LRR R, I	MLRA 149	<b>B</b> )				Other (	Explain in I	Remarks)	
Jadiostore	f bandanah, din cinanda	بدر المصاهر متحذات	etland hydrology mus	4 ha maaaa						
	Layer (If observed)		etiena nyaratogy mus	a ne hiese	in, unies:	s distribed	or problematic	-	······································	
Type:										
Death (in-	ches):						Hydric Soll	Present?	Yes	No
Remarks		natura de la constituira della	<del>and de la company and a</del> And and a second and	romagarnica escalatora	one de la constitución de la con	пункаеріне намінеськам филонофіське		AANAMISECONIN-ATSIASIASIASIASISSE		

	FORM - Northcentral and Northeast Region
Project/Site: Strum Lnblin 1	City/County: <u>Ena Claure Co</u> Sampling Date: <u>9/24/17</u>
Applicant/Owner: DP C	State: WY Sampling Point: 08203
Investigator(s): KB+AJ	Section, Township, Range: <u>53 T250 R5W</u>
	ral relief (concave, convex, none):Stope (%):
Subregion (LRR or MLRA): LRR LBI: 44 40	53.97 Long: -70 57 44.97 Datum: NMD83
Soil Map Unit Name: Fairchild & Merrillan S	
Are climatic / hydrologic conditions on the site typical for this time of yes	
Are Vegetation Soil or Hydrology significantly or	
Are Vegetation Soil or Hydrology naturally pro	
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No X No X No X	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report	If yes, optional Wetland Site ID:
Photo # 130,131, 132	
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 L	Surface Soil Cracks (B6) Leaves (B9) Drainage Patterns (B10)
Surface Water (A1) Water - Staffed to Aquatic Fauna (	
Saturation (A3) Mart Deposits (I	
Water Marks (B1) Hydrogen Sulfid	de Odor (C1) Crayfish Burrows (C8)
SedIment Deposits (B2) Oxidized Rhizos	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Re	duced Iron (C4) Stunted or Stressed Plants (D1)
	duction in Tilled Sails (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surfa	
Inundation Visible on Aerial Imagery (B7) Other (Explain i Sparsely Vegetated Concave Surface (B8)	in Remarks) Microtopographic Relief (D4)  X FAC-Neutral Test (D5)
Field Observations:	A 170 House Tex (65)
Surface Water Present? Yes No X Depth (Inches)	
Water Table Present? Yes No X Depth (Inches)	
Saturation Present? Yes No X Depth (inches)	: Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
WICE A A SECURITY CONTROL OF THE CON	
Remarks:	

T. Ol Ame (District)	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
Tree Stratum (Ptol size:)	% Cove	Species	Status	Number of Dominant Species
1.			***************************************	That Are OBL, FACW, or FAC: (A)
2				T ALL March and Barriera
				Total Number of Dominant 3 Species Across All Strate: (B)
3,				Species Across Air Strate.
4.				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 66 (A/B)
6				Prevalence Index worksheet:
7.				Total % Cover of Multiply by:
		= Total Co	ver	OBL species x 1 =
De la companya del companya de la companya del companya de la comp	***************************************			FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)	Λ	,)		FAC species x 3 =
1. Anus Strobes	'		FACU	
2 Comptonia Delegrina	5	Ĭ	UPL	FACU species x 4 =
				UPL species x 5 =
3				Column Totals: (A) (B)
4				
5.				Prevalence Index = B/A =
1				Hydrophytic Vegetation Indicators:
6				1
7.			<del></del>	1 - Rapid Test for Hydrophytic Vegetation
	7	= Total Co	ver	★ 2 - Dominance Test is >50%
		•		3 - Prevalence Index is ≤3.01
Herb Stratum (Plot size:)	0.0	( )	Chr. 1	4 - Morphological Adaptations (Provide supporting
1. Rubus hispidas	<u> 30</u>	. <u> </u>	FACU	data in Remarks or on a separate sheet)
2. Bromus Cilliatus	30	Y	FACW.	Problematic Hydrophytic Vegetation¹ (Explain)
3. Botrupus virginianus	7	W	FACU	
3. 17 SC 14 104 S OH 65 THE COLOR	_ <del></del> _			Indicators of hydric soil and welland hydrology must
4. Potentilla Simplex		<u> N</u>	FACU	be present, unless disturbed or problematic.
5. Calamagrostis Canadenses	- 5	N	OBL	P. C. M. and A. C. Mariana and A. C. Mariana
I v v v v v v v v v v v v v v v v v v v				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				Continue to the state of the st
				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 (111) tail.
10.				Herb - All herbaceous (non-woody) plants, regardless
11,				of size, and woody plants less than 3.26 ft tall.
1			-	Woody vines - All woody vines greater than 3.28 ft in
12.		•		heicht.
	71	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2		-	-	
3.				Hydrophytic
				, , , , , , , , , , , , , , , , , , , ,
4.	<del></del>			Present? Yes No No No
		_ = Total Co	wer	
Remarks: (Include photo numbers here or on a separate	sheet.]			
1				
ı				

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix Color (moist)	<del></del>	Redo Color (moist)	x Feature: %		Loc*	Texture	Remarks
0 - 2	2.54 2.5/1	/JO	2314- 11101311				Sandyloam	
3 - 20	2.54 6/2	102				Anaineri ikonemeriere	Sand	entre de la companya
3-20	43112	190	·		-		30,00	**************************************
	•			- <del></del>		***************************************		
		-						
		-			2,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1			
				-		4		
<del></del>					-			
***************************************			We will describe a service of the se		***************************************	***************************************		
	***************************************		<del></del>					
'Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains		ore Lining, M=Matrix
Hydric Soll								blematic Hydric Solis*:
Histosol	(A1) pipedon (A2)		Połyvalue Belo MLRA 1498		(S8) (LRI	RR,		0) (LRR K, L, MLRA 1498) Redox (A16) (LRR K, L, R)
	istic (A3)		Thin Dark Surfa	•	RR R, MI	LRA 1498)		eat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)	-	Loamy Mucky I			, L)		S7) (LRR K, L, M)
1	d Layers (A5) d Below Dark Surface	. (611)	Loamy Gleyed Depicted Matrix		)			w Surface (S8) (LRR K, L) ace (S9) (LRR K, L)
	ark Surface (A12)	י נווחו	Redox Dark Su					se Masses (F12) (LRR K, L, R)
Sandy N	/lucky Mineral (\$1)		Depleted Dark		7)			dpiain Soils (F19) (MLRA 1498)
-	Sleyed Matrix (S4)		Redox Depress	sions (F8)			Mesic Spedic ( Red Parent Ma	TA6) (MLRA 144A, 145, 149B)
	Redox (S5) I Matrix (S6)							Dark Surface (TF12)
	rface (S7) (LRR R, N	ILRA 149B	)				Other (Explain	
	I hydrophytic vegetat		lland hydrology mu	st be presi	ent, unles	s disturbed	or problematic.	<del></del>
	Layer (If observed):							
	ches]:						Hydric Soil Presen	17 Yes No
Remarks			en karajana kili kili kili kili kili kili kili kil	signit mining policy (might divisid from			тру <mark>жн</mark> ормори ористиндерский изголивания из метаменами могатели изголиваний изголиваний изголиваний изголиваний и	annia anni anni anni anni anni anni ann



DIRECTION	FEATURE ID	082D	DATE
South	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/24/2012

### COMMENTS

Wetland is located adjacent to unnamed intermittent tributary of Pea Creek.

084D

	PRM - Northcentral and Northeast Region
Project/Site: Strum Lublin City	County: Eau Claire Co Sampling Date: 9/24/12
Anolicant/Duner: DPC	State: W.J. Sampling Point: (1840)
Investigator(s): KB+AD Section	ion, Township, Range: S34 T26N R5W
Landform (hillslope, terrace, etc.): Classics Local rel	
Subregion (LRR or MLRA): LDA F Let: 44/4/4/	38.05 Long: -90 57 44.74 Datum: NAD8
Soil Map Unit Name: Fairchild o Merrillan so	
Are climatic / hydrologic conditions on the site typical for this time of year?	
	rbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation // Soil // or Hydrology // naturally problem	
	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Hydric Soil Present? Yes No No Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	If yes, opadian welland site to.
Photo # 133	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (86)
Surface Water (A1) Water-Stained Leav	
High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Mart Deposits (B15)	· · · · · · · · · · · · · · · · · · ·
Water Marks (B1) Hydrogen Sulfide Or	
	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algai Mat or Crust (B4) Recent Iron Reducti	on in Titled Sails (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	· · · · · · · · · · · · · · · · · · ·
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	
Sparsely Vegetaled Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:  Surface Water Present?  Yes No _X Depth (Inches):	
Water Table Present? Yes No Depth (inches):	means and commission poor
Saturation Present? Yes V No Depth (Inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), it available
Remarks:	Selected Assessment and Assessment a

VEGETATION - OSC SCICINIIIO TRATICE OF PRIME.					
		Dominant		Dominance Test worksheet:	l
Tree Stratum (Plot size:)	% Cover	Species?	Status		- 1
1.				Number of Dominant Species That Are OBL, FACW, or FAC:(A)	- 1
				I I I I I I I I I I I I I I I I I I I	- 1
2				Total Number of Dominant	ı
3.				Species Across All Strate: (B)	
Y	***************************************				ı
4.	***************************************		****	Percent of Dominant Species	ı
5.				That Are OBL, FACW, or FAC: (A/E	3)
6				Prevalence Index worksheet:	- 1
7				, , , , , , , , , , , , , , , , , , , ,	ı
7.			***************************************	Total % Cover of Multiply by:	ŀ
		= Total Co	/er	OBL species x1 =	
Sapling/Shrub Stratum (Plot size:)		1		FACW species x 2 =	ı
1	¥	. 1	TALL		ı
1. Sambucus nigra	-	<u>N</u>	FACW.	FAC species x 3 =	- 1
. •				FACU species x 4 =	- 1
2				UPL species x 5 =	- 1
3.				Column Totals: (A) (B	, I
				Countri rocals (A)	'
4			-		ı
5				Prevalence index = B/A =	
				Hydrophytic Vegetation indicators:	
6					
7.				1 - Rapid Test for Hydrophytic Vegetation	1
			AND CONTRACTOR OF THE PARTY OF	2 - Dominance Test is >50%	
		= Total Co	ver	3 - Prevalence Index is ≤3.0°	1
Herb Stratum (Plot size:)		i			1
	90	V	A0 /	4 - Morphological Adaptations <sup>1</sup> (Provide supporting	10
			OBL	data in Remarks or on a separate sheet)	- 1
2. Schoenplectus tabernaemontani	1	N	OBL	Problematic Hydrophytic Vegetation* (Explain)	- 1
		· <del></del>			
3. Rubus idgeus		$N_{\perp}$	FACU	The discount of the office and send on the order to the order	_
4 Impations capensis	2	N	FACW	I indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.	- 1
1 4. <u>+1.112-6-1.00</u>				be present, diaess assurbed or problematic.	
5				Definitions of Vegetation Strata:	
6.	***************************************	-	***************************************	Tree - Woody plants 3 in. (7.6 cm) or more in diamet	er
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.	
1					
10.				Herb - All herbaceous (non-woody) plants, regardles	,s
11				of size, and woody plants less than 3.28 ft tall.	
				Woody vines - All woody vines greater than 3.28 ft i	
12.		. <del></del>		height.	*1
	45	= Total Co	wer	noigh.	
		•			
Woody Vine Stratum (Plot size:)					
1.					
***					
2.					
3.				Hydrophylic	
		-		Vegetation	
4.		. <del></del>		Present? Yes No	
		= Total Co	wer		
Remarks: (Include photo numbers here or on a separate	snect.)				
1					

Profile Desc	ription: (Describe	to the de	oth needed to docum	ent the i	ndicator	or confirm	the absence	of Indicato	rs.)	1
Depth	Matrix Color (moist)	%	Redox Color (moist)	Features		Loc	Texture		Remarks	
(inches)	Coo (most)		Color (moist)	<u>%</u>	Type		Textole	010	1	7
0-1	2504/1		7,519 34		$\overline{C}$	- Di	e 21 1	-	F.	<u> </u>
2-8	207 /	<u>70</u>		30		PL	SillyCky	**************************************	WITH Sea	dleases
8-13	2.54 2.5/1	97	7.548.3/3	<u>3</u> .		PL	Sittych	y lowner	S/1991	Mucky
13-20	10464/1	100	***************************************				Sand			
	<u> </u>	i		***********		******************				
-				***************************************						
							***************************************	***************************************		
					***********	***************************************	***************************************	***************************************		<del></del>
		* *************************************	**************************************	***************************************	***************************************	***************************************	Minkenishumimoranimusam	**************************************		
			***************************************							
							2			<del></del> .
'Type: C≕C Hydric Soli	austra processor and the contract of the contr	letion, RA	⊫Reduced Matrix, MS	=Masked	Sand Gr	8:NS			Lining, M=Matr natic Hydric S	
Histosol			Polyvalue Below	Surface	(S8) (LRI	R R.			LRR K, L, MLI	
Histic Es	olpedon (A2)		MLRA 1498)				Coast	Prairie Red	ox (A16) (LRR	K, L, R)
	stic (A3) in Sulfide (A4)		Thin Dark Surface Loamy Mucky M						or Peat (S3) (L (LRR K, L, M)	RR K, L, R)
	d Layers (A5)		Loamy Gleyed I			., <b>.</b> .,	Polyva	lue Below S	Surface (S8) (LI	
·	d Below Dark Surfac	c (A11)	Depleted Matrix						(S9) (LRR K, I	
	ark Surface (A12) fucky Mineral (S1)		Redox Dark Sur Depleted Dark S		7)		-	-	Masses (F12) (L ain Sols (F19) (	
	Bleyed Matrix (S4)		Redox Depressi				Mesic	Spodic (TAI	6) (MLRA 144 <i>A</i>	
	tedox (S5)							arent Materi	al (F21) : Surface (TF12	).
	l Matrix (S6) rface (S7) (LRR R, R	MLRA 149	IB)					(Explain in F	•	: <b>,</b>
3Indicators o	f hydrophytic vegeta	tion and v	reliand hydrology mus	t be prese	nt, unles	s disturbed	d or problematic	<b>2</b> .		
Restrictive	Layer (if observed):				,,					
Туре:		· · · · · · · · · · · · · · · · · · ·					14.22. 8.11	0	y Y	No.
Environmental Company and Comp	ches):				SANGSERNAMENAN SANGSERNA (48)	#304CUSSUNDOTTO##USSUNDONY	Hydric Soll	Present	***************************************	NO
Remarks:										
						el Linicopor Consciona acordos Nos				

WETLAND D	ETERMINATION DATA FO	RM - Northcentral	and Northeast Region
Project/Site: Strum Luk	tin cityk	county. <u>Fau</u> Cla	ive (o Sampling Date: 9/25/)
Applicant/Owner: DPC			State: <u>ルエ</u> Sampling Point: <u>OSY D</u>
Investigator(s): KB+AJ	Secti	on, Township, Range:	534 TRGN R5W
Landform (hillslope, terrace, etc.):/	115lope Local rel	lief (concave, convex, no	one): <u>// // / S</u> \$lope (%): <u>3</u>
Subregion (LRR or MLRA): LRRK	Let: <u>44 41 3</u>	8.76 Long: <u>9</u>	ne): <u> </u>
			NWI classification:
Are climatic / hydrologic conditions on the	site typical for this time of year?	/es No	(If no, explain in Remarks.)
Are Vegetation N., Soil N., or H	ydrology 📈 significantly distui	rbed? Are *Norma	al Circumstances" present? Yes X No
Are Vegetation <u>W</u> , Soil <u>N</u> , or H	ydrology <u>N</u> naturally problem	atic? (If needed,	el Circumstances" present? Yes No explain any answers in Remarks )
SUMMARY OF FINDINGS - At	ach site map showing sar	mpling point location	ons, transects, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No No Yes No No X	Is the Sampled Area within a Wetland?	Yes No
Welland Hydrology Present?	Yes No X	If yes, optional Wetlan	đ Site ID.
Remarks: (Explain alternative procedure		<b>.</b>	
Photo # 134	· 135		
HYDROLOGY			
Wetland Hydrology Indicators:	<del>  </del>	**************************************	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is r	equired check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leave		Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)	Mari Deposits (B15) Hydrogen Sulfide Oc		Dry-Season Water Table (C2) Crayfish Burrows (C8)
Water Marks (B1) Sediment Deposits (B2)		res on Living Roots (C3)	
Drift Deposits (B3)	Presence of Reduce	-	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	***************************************	on in Titled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (		Shallow Aquitard (D3)
Inundation Visible on Aerial Imager			Microtopographic Relief (D4)
Sparsely Vegetated Concave Surfa	ice (B8)		FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No Depth (Inches):	<u> </u>	
ł .			. Y
Saturation Present? Yes (includes capillary fringe)	No <u> </u>	Wetland	Hydrology Present? Yes No
Describe Recorded Data (stream gaug	e, monitoring well, aerial photos, pr	evious inspections), if av	railable:
		aya saraneyin a sanna waxa kakena kakena sayaa korka ciilada ake siirab ka kiipila aliki ne ciipii ak	Design Control (Control (Contr
Remarks:			
1			

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Slatus		
1.				Number of Dominant Species That Are OBL, FACW, or FAC:(A)	ı
2				Total Number of Dominant	
3,			****	Species Across All Strate: (B)	1
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 Co	/er	OBL species x1 x	
Sapting/Strub Stratum (Plot size:)		,		FACW species x 2 =	
1. Vaccinum Cocym bosum	20	4	FACW	FAC species x 3 =	
	-			FACU species x 4 =	
2	• *************************************			UPL species x 5 =	
3.	-	-		Column Totals: (A) (8	<b>3</b> )
4					-,
5.				Prevalence Index = B/A =	
				Hydrophytic Vegetation Indicators:	
6,					
7.				1 - Rapid Test for Hydrophytic Vegetation	
	20	= Total Co	ver	2 - Dominance Test is >50%	
Herb Stratum (Plot size:)	<b>A</b>			3 - Prevalence Index is ≤3.0°	
1. Botryous Viranianus	7	N	FACU	4 - Morphological Adaptations' (Provide support data in Remarks or on a separate sheet)	ing
2. Potentilla Sura Dex		N	FACU	Problematic Hydrophytic Vegetation (Explain)	
3. Bubas Magnalas		4	FACW		
3. DAVAGE VILLEGE	5	- AJ		Indicators of hydric soil and welland hydrology must	:
4. Andropodon gerardii			IRCU	be present, unless disturbed or problematic.	
5			************	Definitions of Vegetation Strata:	
6.					
				Tree – Woody plants 3 in. (7.6 cm) or more in diame	ter
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, regarde	• •
				of size, and woody plants less than 3 28 ft tall.	
11,					•
12.			-	Woody vines - All woody vines greater than 3.28 ft. height.	m
	89	= Total Co	ver	100	
Woody Vine Stratum (Plot size:)					
1,			· · · · · · · · · · · · · · · · · · ·		
2.	-		-		
3.				Hydrophylic	
4.				Vegetation Present? YesNo	
		= Total Co	ver	LIASANI LAS NO	
Remarks: (Include photo numbers here or on a separate	sheet 1				
mentants. (include protonantos a tiere or on a separate	J. PO CAL.)				

Type: C=Concendration D=Depletion RMsReduced Matrix, MS=Masked Sand Grans   Teadure   Rematks		ription: (Describe t	to the dep	th needed to docu		r or confirm	the absence of in	dicators.)
Type: C=Concentration D=Depletion RM=Reduced Matrix, MS=Masked Sand Grains   Tocation: PL=Pore Lining, M=Matrix   PL=Pore Lining, M=Matrix   PL=Pore Lining, M=Matrix   Pl-Pore Linin						Loc*	Texture	Remarks
Type: C=Concentration	0-3							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains   Cocation: PL=Pore Lining, M=Matrix	2-9							
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Thydric Soil Indicators:  Histosol (A1)  Histosol (A1)  Histosol (A2)  Black Histor (A3)  Histosol (A3)  Histosol (A3)  Thin Dark Surface (S9) (LRR R, MLRA 1498)  Stratified Layers (A5)  Depleted Matrix (A5)  Depleted Matrix (A5)  Depleted Below Dark Surface (A11)  Depleted Matrix (B3)  Thin Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Redox (Dark Surface (F6)  Sandy Gleyed Matrix (S4)  Sandy Redox (Dark Surface (F6)  Sandy Redox (Dark Surface (F7)  Sandy Redox (Dark Surface (F7)  Sitraped Matrix (S4)  Sandy Redox (S5)  Sitraped Matrix (S4)  Sandy Redox (S5)  Sitraped Matrix (S4)  Sandy Redox (S5)  Sitraped Matrix (S4)  Sandy Redox (S7) (LRR R, MLRA 1498)  Dark Surface (S7) (LRR R, MLRA 1498)  Thin Dark Surface (TA6) (MLRA 1498)  Cher (Explain in Remarks)  Type:  Depth (inches):  Hydric Soil Present? Yes No	9-15	<u> </u>		<del></del>				AND CONTRACTOR OF THE CONTRACT
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains  The depletion of the					<del></del>			
Hydric Soll Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Eplpedon (A2)  MLRA 149B)  Coast Praine Redox (A16) (LRR K, L, R)  Black Histic (A3)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Stratified Layers (A5)  Depleted Metrix (F3)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7)  (LRR K, L, R)  Hydric Soll Present? Yes	100 20	424	100	<del></del>	-			
Hydric Soll Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Eplpedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Hydric Soll Present? Yes No			-			-		
Hydric Soll Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Eplpedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Hydric Soll Present? Yes No		***************************************	-	•				
Hydric Soli Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2) MLRA 149B) Coast Praine Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (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)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Redox (S5) Red Parent Material (F21)  Sinipped Matrix (S6) Matrix (S6) Piedmont Surface (TF12)  Dark Surface (S7) (LRR R, MLRA 149B)  Jindicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No								
Hydric Soli Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2) MLRA 149B) Coast Praine Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (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)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Redox (S5) Red Parent Material (F21)  Sinipped Matrix (S6) Matrix (S6) Piedmont Surface (TF12)  Dark Surface (S7) (LRR R, MLRA 149B)  Jindicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No								
Hydric Soli Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2) MLRA 149B) Coast Praine Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (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)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Redox (S5) Red Parent Material (F21)  Sinipped Matrix (S6) Matrix (S6) Piedmont Surface (TF12)  Dark Surface (S7) (LRR R, MLRA 149B)  Jindicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No		<u> </u>			<del></del>	-		
Hydric Soll Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Eplpedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Hydric Soll Present? Yes No			· manuscriptorum	***************************************		***	was a second control of the second control o	
Hydric Soll Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Eplpedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Hydric Soll Present? Yes No								
Hydric Soll Indicators:  Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Eplpedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Matrix (F3)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Hydric Soll Present? Yes No								
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Cost Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (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) Thick 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, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Predmont Floodplain Soits (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spocks (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B)  Type: Depth (inches): Hydric Soil Present? Yes No	¹Type: C≔Co	oncentration D≃Dep	letion, RM	=Reduced Matrix, M	S=Masked Sand C	rains	eine timber er er engelet i dyskraetiet biskripet er	
Histic Epipedon (A2)  MLRA 1498)  Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3)  Thin Dark Surface (S9) (LRR R, MLRA 1498)  Stratified Layers (A4)  Loamy Mucky Mineral (F1) (LRR K, L)  Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5)  Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Predmont Floodplain Sols (F19) (MLRA 1498)  Sandy Redox (S5)  Stripped Matrix (S4)  Redox Depressions (F8)  Mesic Spodic (TA6) (MLRA 144A, 145, 1498)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 1498)  Type:  Depth (inches):  Hydric Soil Present? Yes No	•							· ·
Black Histic (A3)		• '				RR R,	_	
Stratified Layers (A5)	Black Hi	stic (A3)		Thin Dark Surf	ace (S9) (LRR R, I		5 cm Mucky	y Peat or Peat (S3) (LRR K, L, R)
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, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Predmont Floodplain Soils (F19) (MLRA 1498 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1498 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 1498)  Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No						K, L)		
Sandy Mucky Mineral (S1)			c (A11)					
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 1498 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B)  Type: Depth (inches): Hydric Soil Present? Yes No								
Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Cther (Explain in Remarks) Cther (Explain in Remarks) Cther (Explain in Remarks) Restrictive Layer (If observed): Depth (inches): Hydric Soil Present? Yes No No No	-	-						
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed):  Type:  Depth (inches): Hydric Soil Present? Yes No		-					Red Parent	Material (F21)
Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed):  Type:  Depth (inches): Hydric Soil Present? Yes No		, ,	AI RA 1408	₹1				
Restrictive Layer (if observed):  Type:  Depth (inches): Hydric Soil Present? Yes No	Dain 90	inace (3/) (£nn it, n	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<b>.</b> ,			Cule: (Exp	Will be technical
Type:				elland hydrology mu	st be present, unle	ss disturbed	or problematic.	
Depth (inches): Hydric Soil Present? Yes No		Layer (II observed):						
		ches)					Hydric Soll Pres	seni? Yes No
	- OF CHEST AND THE STREET, STR			<del>and kan and a make a</del> Bagak kingkan makea kalikan pinis aki Apawan si kinabaake kehindan seperabi ken melelangi kina Bagak kingkan makea kalikan pinis aki angan makea kalikan kehindan seperabi ken melelangi kinaban sebagai ken	adan girak da kina kina kina kina kina kina kina kin	histori kilpetisti (Phikolik Kolo Wildeld		



DIRECTION	FEATURE ID	084D	DATE
Southwest	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/25/2012

c1 1 1		PRM – Northcentral and Northeast Region
roject/Site: 2+1um -ul	o l. v city/	County: <u>Ean Clarve Co</u> Sampling Date: 9/25
Applicant/Owner: DPC		State: WI Sampling Point: 087 Ó
nvestigator(s): <u>KB+A</u>	Sec	ion, Township, Range: S27 T240 R5W
		fief (concave, convex, none): Cancous Slope (%):
andioni (misope, tenace, etc.). Or	1- 1- 44 42 C	0.9.2 Long: -90 57 44.87 Datum: NAD 8.
Soil Map Unit Name: <u>FLM Luke</u>	1000My Savia	NWI classification:
Are climatic / hydrologic conditions on the	e site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation $N$ Soil $N$ or H		· · · · · · · · · · · · · · · · · · ·
ve Vegetation <u>V</u> , Soil <u>V</u> , or H	lydrology naturally problen	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - At	tach site map showing sa	mpling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland? Yes No If yes, optional Wetland Site ID.
Remarks: (Explain alternative procedur	тез неге от на а зерзгате терогс.)	
Photo # 136		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is r		Surface Soli Cracks (B6)
Surface Water (A1)	Water-Stained Leav	
High Water Table (A2)	Aquatic Fauna (B13	
✓ Saturation (A3)	Mari Deposits (B15	
Water Marks (B1)	Hydrogen Sutfide C	dor (C1) Crayfish Burrows (C8) res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
<ul><li>Sediment Deposits (B2)</li><li>Drift Deposits (B3)</li></ul>	Oxidized killzospile	
Algai Mat or Crust (B4)	Recent Iron Reduct	
Iron Deposits (B5)	Thin Muck Surface	
Inundation Visible on Aerial Image		
Sparsely Vegetated Concave Surfa		FAC-Neutral Test (D5)
Field Observations:	2007	
	No X_ Depth (Inches):	
	No Depth (Inches):	17
	No Depth (inches):	Wetland Hydrology Present? Yes X No
Saturation Present? Yes		
·	e, monitoring well, aerial photos, p	revious inspections), if available:

	Absolute	Dominant	In discalar	I .
Tree Stratum (Plot size:)		Species?		Dominance Test worksheet:
1		***************************************	<del></del>	Number of Dominant Species
				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3,		***************************************	******************	Species Across All Strate:(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 x1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1. Pinus Strobus	3.	$l_{J}$	FACY	FAC species x 3 =
- C N :		U		FACU species x 4 =
2. Spiraea alba		<del></del>	FHCW	UPL species x 5 =
3. Alnus incana		<u>N</u>	FACW	Column Totals:(A)(B)
4				(9)
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6,				1 \ 7
7.				1 - Rapid Test for Hydrophytic Vegetation
	9	= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.01
1. Soldano milanosa	3	N	DOL	4 - Morphological Adaptations (Provide supporting
		7	OBL	data in Remarks or on a separate sheet)
2. Schoenoplectus tabernaemontar	." '	<del></del>		Problematic Hydrophytic Vegetation' (Explain)
3. Sir Dus a biourreus			OBL	The discovery of Sendral and smallered Southerland south
4. Symphyotrichum Puniceum	2	N	OBL	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
5. Sphraum Magellanicum		4	***************************************	
		7	<u> </u>	Definitions of Vegetation Strata:
6. Glycetia Canadense			<u>08 L</u>	Tree – Woody plants 3 in. (7,6 cm) or more in diameter
7.		***************************************	<del></del>	at breast height (DBH), regardless of height.
8				Canting taken Manny signs less than 3 in DDU
9				Sapling/shrub Woody plants less than 3 in, DBH 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,		***************************************		of size, and woody plants less than 3.28 ft tall.
12.				Woody vines - All woody vines greater than 3.28 ft in
	95	= Total Cov	rer	height.
Military to Market Charles and		100,000		
Woody Vine Stratum (Plot size:)				
1,	-			
2.			-	
3.				Hydrophylic
4	•			Magnitation
	• •••••••	***************************************	-	Present? Yes No
		= Total Cov	/cr	
Remarks: (Include photo numbers here or on a separate :	sheet.}			

	cription: (Describe	to the dept				or confirm	the absence	of Indicate	ors.)	
Depth (inches)	Matrix Color (molst)	%	Color (moist)	x Features %		Loc	Texture		Remarks	
(9-2							<del></del>	C) ( ML	1	Pe. L
2-9	2,54311	100		***************************************	-	***************************************	51-140	an Ma	<u> </u>	
9-20	104R 5/2	100					Sand	7 10,000		
1 20	IDIN 12	100					ORCED			
		,					,			
		<del></del>			******************					
				-					,	
		· ······								·····
									·	
***************************************		•		· wannamarina	***************************************		MONTH COMMENTAL COMMENTS AND ADDRESS OF THE PARTY OF THE			
Type: C=C	oncentration, D=Dep	letion Dia-	Raducad Matrix 140		Sand Car		<sup>2</sup> l scation	· PI #Pore	Lining, M=Matr	n'Y
Hydric Soll	исстью при изместью выправлению примененнями при при при при при при при при при пр		repoces many	J (TIG) JAC (	CHARLO CH				matic Hydric S	
Histoso	• .		Polyvalue Belov		(S8) (LRF	R,			(LRR K, L, MLI	
	pipedon (A2) istic (A3)		MLRA 1498) Thin Dark Surfa		RR R MI	RA 1499			lox (A15) (LRR or Peat (S3) (L	
	en Sulfide (A4)		Loamy Mucky N	-					(LRR K, L, M)	
	d Layers (A5)		Loamy Gleyed I		)				Surface (S8) (Li	
, — -	d Below Dark Surfac ark Surface (A12)	6 (A11)	Depleted Matrix Redox Dark Sur						: (S9) (LRR K, I Masses (F12) (L	
	Mucky Mineral (S1)	•	Depleted Dark :	Surface (F					ain Solls (F19)	
	Sleyed Matrix (S4)		Redox Depress	ions (FB)			_		6) (MLRA 144 <i>)</i>	L, 145, 149B)
	Redox (S5) 1 Matrix (S6)							arent Mater haticw Dari	iai (rzi) k Susface (TF1:	2)
Dark St	erface (S7) (LRR R, I	MLRA 1498	)				Other	(Explain in	Remarks)	
<sup>3</sup> Indicators d	al hydrophytic vegeta	tion and we	liand hydrology mus	the nees	nt unies	: disturbed	l or problematic	,		
	Layer (If observed)		in in it is a second of the interest of the in	A DO PAGE	in, ones.	, a solo a	- G probidition	, . 		·····
Туре:									\/	
Depth (in	ches):	a led literia delimenti de ciabi di lea de a casa d	and the case of				Hydric Soll	Present?	Yes	No
Remarks	mand de de de companya de des de companya de describado de de describado de describado de describado de describado de descri	idensi sioneleitamista emiteido el casarillo	erang managabang managang dalam dan mendelah mendaban melabah mengelah terd	A TOWN OF THE PROPERTY OF THE	TOROGABINI NI PARI PARI PARI PARI PARI PARI PARI PAR	ENHALD STATE S	n-la-g-rookshinistas helikit n-konstillekkaratistasikshini	To be recited that the state of an interesting	писан-несовородня обереновного оказанного	T C S wash C District manuscript before the constitution of comments of con-

	PRM - Northcentral and Northeast Region
Project/Site: Strun Lublin CityA	County: <u>Fau Clause Co</u> Sampling Date: 9/25/15
Applicant/Owner: DPC	State: WF Sampling Point: 0.8702
	ion, Township, Renge: S27 TaGU R5W
Subrenien (IRR of MIRA): LBK K Lat 44 47 2	fief (concave, convex, none): 100 Sope (%): 5 Sope (%)
Soil Map Unit Name: Elm Lake loamy sand	
Are climatic / hydrologic conditions on the site typical for this time of year?	
	A Section Control of the Control of
Are Vegetation Soil , or Hydrology , significantly disturble Are Vegetation , Soil , or Hydrology , naturally problem	rbed? Are "Normal Circumstances" present? Yes
	mpling point locations, transects, important features, etc.
	In the Complet Acco
Hydrophytic Vegetation Present? Yes No	is the Sampled Area Within a Wetland? Yes No
Hydric Soil Present? Yes No Y Welland Hydrology Present? Yes No X	<u> </u>
Welland Hydrology Present?   Yes No X     Remarks: (Explain alternative procedures here or in a separale report.)	If yes, optional Wetland Site ID:
Tremains. (Explain are mative procedures have or in a separate report.)	
•	
Photo # 137, 138	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (86)
Surface Water (A1) Water-Stained Leave	
High Water Table (A2) Aquatic Fauna (B13)	
Saturation (A3) Mart Deposits (B15)	
Water Marks (B1) Hydrogen Sulfide Or	
Sediment Deposits (B2) Oxidized Rhizosphe	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Fresence of Reduce	
	on in Titled Solts (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	<del></del>
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inches):	wide classific function and a second and a s
Water Table Present? Yes No Depth (Inches):	
Saturation Present? Yes No Depth (Inches):	Welland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Remarks:	

Sampling Point: 06702

ree Stratum (Ptot size:)	% Cover	Dominant Indicator Species? Status	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata:(8)
			Percent of Dominant Species
	<del></del>		That Are OBL, FACW, or FAC: (A/B)
-			Prevalence Index worksheet:
		= Total Cover	Total % Cover of Multiply by:  OBL species
apling/Shrub Stratum (Plot size:)	***************************************	\ \	FACW species X2 =
Pinus Stiobus	10	Y FACY	FAC species x 3 =
Quercus Fubra	_	N FACL	FACU species 83 x4 = 332
*			UPL species $\bigcirc$ $x5 = \bigcirc$ Column Totals: $\cancel{63}$ (A) $\cancel{332}$ (B)
			Prevalence Index = B/A = 4
·			
			Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
	15	= Total Cover	3 - Prevalence Index is ≤3.0°
Andropagen gerardii	20	Y FACU	4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)
. Schizachyrium scoparium	<u> 50</u>	Y FACO	Problematic Hydrophytic Vegetation¹ (Explain)
***************************************			Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
			Definitions of Vegetation Strata:
			Tree – Woody plants 3 in, (7,6 cm) or more in diameter at breast height (DBH), regardless of height.
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
0 1			Herb All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
		***************************************	
2.		T-1-1 O	Woody vines - All woody vines greater than 3.28 ft in height.
2	70	= Total Cover	
Voody Vine Stratum (Plot size:)			
Voody Vine Stratum (Plot size:)			height.
Voody Vine Stratum (Plot size:)			height.  Hydrophytic
Voody Vine Stratum (Plot size:)			height.  Hydrophytic

Rig

Profile Desc	ription: (Describe)	o the dent	h needed to docum	ent the l	ndicator	or confirm	the shearce	of indicators )	
Depth	Matrix	or area comba		c Feature:				y	
(inches)	Color (moist)	95	Color (moist)		Type	Loc*	Texture	Remarks	
0-3	1042312	100					lormy Sec.	ı	
3-11	7.54R 4/6	100					7		
<del>-2     -</del>	**************************************	-			***************************************	<del></del>	5 6 m d		
11-12	1042 7/6	100					sand		
***************************************		-		***************************************	-		<del></del>		
	**************************************	-					<del></del>		
		*		***************************************					
				***************************************	************	*	-		
	***************************************			***************************************	***************************************	***************************************	***************************************	**************************************	
Time: C=C	oncentration, D≃Depi	letion Dis-	Darbinad Matrix 169	-Maskad	Sand Cr		2 ocation	: PL=Pore Lining, M=Matrix.	
Hydric Soll	niantieruskius polymanistra patiticiai paliticia (natiticia) (nati	CONTRACTOR OF THE		Service (Service Complete Comp				for Problematic Hydric Solis <sup>3</sup> :	
Histosol	(A1)		Polyvalue Belov	v Surface	(S8) (LRI	₹R.		luck (A10) (LRR K, L, MLRA 149B)	
1 —	olpedon (A2)	•	MLRA 1498)					Prairie Redox (A16) (LRR K, L, R)	
1	stic (A3)		Thin Dark Surfa				-	lucky Peat or Peat (S3) (LRR K, L, R)	
	m Sulfide (A4)		Loamy Mucky M			, L)		ourface (S7) (LRR K, L, M)	
	t Layers (A5) d Below Dark Surface	- (411)	Loamy Gleyed I Depleted Matrix		)			lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)	
	ark Surface (A12)	· (A11)	Redox Dark Sui					anganese Masses (F12) (LRR K, L, R)	
	fucky Mineral (S1)		Depicted Dark S					ont Floodplain Sols (F19) (MLRA 1498)	
	Sleyed Matrix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
	tedox (S5)						Red Parent Material (F21)		
1	l Matrix (S6) rface (S7) (LRR R, N	41 08 4200	•				Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
_ Dain 33	itate (S) (LKK K, a	1430	,				Cuiei i	(expani in Kemaiks)	
3Indicators o	f hydrophytic vegetat	ion and we	tiand hydrology mus	t be prese	nt, unles	s disturbed	l or problematic	ž.	
Restrictive	Layer (If observed):	***************************************	***************************************	*******		····	***************************************		
Туре:								· ·	
Depth (in	ches):		-				Hydric Soll	Present? Yes No	
Remarks		**************************************				Nogotywa yii ah malejyyin ticinoodyabati	THE RESIDENCE PERSONNELS AND RESIDENCE AND RESIDENCE	AR THE CONTRACT OF CONTRACT THE STEEL AS A SECURITION OF CONTRACT OF CONTRACT THE STEEL AS A SECURITION OF CONTRACT THE	



DIRECTION	FEATURE ID	087D	DATE
South	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/25/2012

## COMMENTS

Wetland is located adjacent to unnamed intermittent tributary of Horse Creek.

	ATA FORM Northcentral and Northeast Region
Project/Site: Strum Lublin	City/County: Eau Class . Co Sampling Date:9/25//2
Applicant/Owner: DPC	State: WI Sampling Point: 08901
Investigator(s): KB + AJ	State: $\underline{WI}$ Sampling Point: $\underline{O890}$ Section, Township, Renge: $\underline{S23}$ $\underline{T260}$ $\underline{R50}$
	Local relief (concave, convex, none):Slope (%)
	2 44,58 Long: <u>-90 57 43.77</u> Datum: <u>NAD83</u>
Soil Map Unit Name: Luclington & Humbire	1 Soil 5 NWI classification:
Are climatic / hydrologic conditions on the site typical for this time	<b>↓</b> .
Are Vegetation N. Soil N. or Hydrology N. significa	
Are Vegetation N. Soil N. or Hydrology N natural	
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	I udthin a Watiand? Vac ∨ Na
Welland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Photo # 139	
HYDROLOGY	Sanada de Madara (minimum debut a partinal)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)  Surface Soil Cracks (86)
Primary Indicators (minimum of one is required; check all that ap  Surface Water (A1) Water-Sta	ined Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fa	
Seturation (A3) Marl Depo	
<del></del>	Sutfide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized F	Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	n Reduction in Titled Soils (C6) Geomorphic Position (D2)
1 /	Surface (C7) Shallow Aquitard (D3)
	plain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:  Surface Water Present? Yes No Depth (in	chap)-
Water Table Present? Yes No Depth (In	chech: 15
Saturation Present? Yes No Depth (in	ches): Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks	

Sampling Point: 089 D1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Ptol size:)	% Cover	Species?	Status	Number of Dominant Species
1.			. *************************************	That Are OBL, FACW, or FAC:(A)
2				
				Total Number of Dominant Species Across All Strata:(B)
3.				Openies Actions All Charles
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 Co		
		= Total Co	ver	OBL species x1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1.	***************************************	***************************************		FAC species x 3 =
2				FACU species x 4 =
3,				UPL species x 5 =
				Column Totals: (A) (B)
4				Drawlenge Index - D/A -
5,		***************************************		Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				∑ 1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
	***************************************	- Total CO	VC1	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size )  1. Gly cering connederates	50	Y	OBL	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
2. Rubus hispidus			FACH	Problematic Hydrophytic Vegetation' (Explain)
3. Scirpus Cuparines			OBL	•
4. Agents giganteg		N	FACU	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
5. Schoenoplectus tabernaemontani		<u> </u>	OBL	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				Carlinglebraik Meady-place is as then 2 in ODI.
9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10.	· waren - waren - waren - waren	**************************************		Herb All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody wines - All woody vines greater than 3.28 ft in
	84	= Total Co		height,
		- Total Co	1461	
Woody Vine Stratum (Plot size:)				
1.				
2.				
3.				Hydrophylic
4			•	Vegetation
				Present? Yes No
		= Total Co	wer	
Remarks: (Include photo numbers here or on a separate s	ineet.)			

Profile Desc	ription: (Describe t	o the dep	th needed to docum	ent the l	ndicator	or confirm	n the absence	of indicato	(3.)
Depth	Matrix			Feature		1 4 4 7	<b>T</b> -1 <b>d</b> -14		Damasisa
(inches)	Color (molst)	<u>%</u>	Color (molst)		Type	Loc*	Texture		Remarks
0-1	0 -11 3/	100						0100	se Peule
2-7	2.59 7/2	<del>100</del>	2.54 3/3	~			36-14 lo	1	
7-6	10463/1	98	104R 3/6	<u>Z</u> Z		PL PL	Silty chay	1	- Mucky
9-11			1011/18			<u> </u>		- <u>a</u>	
11-18	1044 5/2	100					Sand		
					******************************	***************************************	**************************************	***************************************	
***************************************		***************************************		***************************************	Andrew Commence of the Commenc	***************************************	***************************************	***************************************	
	***************************************	***************************************	<del></del>		***************************************				
Type: C=C	oncentration D=Depl	letion, RM	=Reduced Matrix, MS	=Masked	Sand Gr	ains	<sup>2</sup> Location	: PL=Pore	Lining, M=Matrix.
Hydric Soll	Indicators:			HARMAN GARRILLAND CON MAKANIM	An from the design and the second design of the second	**************************************			natic Hydric Solis³:
Black Hi Hydroge Stratified Deplete Thick Do Sandy N Sandy G Sandy F Jark Su	olipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) I Matrix (S6) rface (S7) (LRR R, N	fLRA 149	Polyvalue Below MLRA 1498) Thin Dark Surfactory Mucky M Loamy Gleyed N Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi  B)	ce (S9) (I lineral (F Matrix (F2 (F3) face (F6) Burface (F ons (F8)	.RR R, MI 1) (LRR K !)	LRA 1498 , L)	Coast Dark S Polyva Thin D Iron-M Pledm Red Pi Very S Cther I	Prairie Redd Aucky Peat in Surface (S7) Author Surface Augustes North Augustes (TAI Augustes (TAI Au	Surface (TF12)
Depth (in	ches):						Hydric Soll	Present?	Yes No
Remarks									

WETLAND DETERM	NATION DATA FORM - Nor	thcentral and Northeast Region
Project/Site: Stimm Lublin	City/County: E	m Claire Co Sempling Date: 9/25/12
Applicant/Owner: DPC		State: WT Sampling Point: 089 D2
Investigator(s): KB + AJ		
		convex, none): 1000 Slope (%): 4
Subregion (LRR of MLRA): LRR L	at: 44 42 42.25	Long: -90 57 45.24 Datum: NA 083
		NWI classification:
Are climatic / hydrologic conditions on the site typics		
Am Vacatation N Soil N or Understand	N eignificantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation Soil or Hydrology _		
SUMMARY OF FINDINGS - Attaich site	map snowing sampling pol	nt locations, transects, important features, etc.
Hydric Soil Present? Yes	NO Y	pled Area (etland? Yes No
Welland Hydrology Present? Yes	No / If yes, option	onal Wetland Site ID:
Photo # 140		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch		Surface Soil Cracks (86)
Surface Water (A1)	Water-Stained Leaves (B9)	Dráinage Patterns (B10)
	Aquatic Fauna (B13)	Moss Trim Lines (B16)
_ <del></del>	Mari Deposits (B15) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2) Crayfish Burrows (C8)
		Roots (C3) Saturation Visible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S	1
	Thin Muck Surface (C7)	Shallow Aquitard (D3)
1	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)
Field Observations:		
	Depth (Inches):	
	Depth (inches):	
Saturation Present? Yes No No	Depth (Inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitorin	ng well, aerial photos, previous inspec	tions), if available:
Remarks;		

	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Ptot size:)		Species?		Number of Dominant Consist
1.			<u></u>	That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3.			-	Species Across All Strate: (B)
4.				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7,			*	Total % Cover ofMultiply by:
		= Total Co	ver	OBL species
Sapling/Shrub Stratum (Plot size:)	_			FACW species 17 x 2 = 34
1. Quarcus Filbra	_ <i>  D</i>	7	FACU	FAC species 1) x 3 =
2.				EACH engine " " va = 220
				UPL species x 5 = <u>2つ</u>
3.				Column Totals:
4				Prevalence index = B/A = 3.6
5.				Prevalence Index = B/A =
6				Hydrophytic Vegetation indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	A/DF	2 - Dominance Test is >50%
		_ 10ta/ 00	,4 <i>E</i> 1	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size )  1. Festuca pratensis	40	4	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Rubus hispidus	105	N	CALL	Problematic Hydrophytic Vegetation (Explain)
3. Eragrostis spectabilis		N	UPL	
		<del>-70</del>		Indicators of hydric soil and wetland hydrology must
4. Votentilla smiller	5	<del></del>	EACH	be present, unless disturbed or problematic.
5. Brimus ciliatus		<u> </u>	FACW	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
11				of size, and woody plants less than 3.28 ft tall.
		* *************************************	-	Woody vines - All woody vines greater than 3.28 ft in
12			-	height.
	67	= Total Co	wer	
Woody Vine Stratum (Plot size:)				
1,				
2.				
3				Hydrophylic
			-	Vegetation
*	-		-	Present? Yes No No
		≖ Total Co	wer	
Remarks: (Include photo numbers here or on a separate	e sheet.)			

Sampling Point 04902

#### SOIL

Profile Desc	ription: (Describe)	to the dept	th needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix	%	Redo Color (moist)	x Feature		Loc*	Tandarah	Remarks	
(inches)	104/2 4/3	100		-	Type		Surdilona		
1-12	75 4R 4/6	-					. ,	<u> </u>	
	ATT	100							
12-18	104 R 5/8	100					Sund		
			<del>1</del>				<del></del>		
***************************************	***************************************		<u> </u>	-	-				
***************************************	<del>3000</del> 2-10-100		***************************************						
	<u> </u>								
				• ****			***************************************		
40,000		- Managaroro							
			***************************************	-					
¹Type: C=C	oncentration, D=Dep	letion, RM=	=Reduced Matrix, MS	S=Masked	Sand Gra	ains	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.	
Hydric Soll I	INCOMESTATION PRODUCTION OF THE PROPERTY OF TH	MANAGEMENT ON A CONTROL OF THE OWNER.	yang yang opunggi gangga puliki-into ngimiyi-auptokomiyl veli rendakeliki intola ito komitambla	olerzakiedzier Popiedaniak Popied	eet suud omaaleel van vervoonilaini.	egodicoloum susse meso municiman.		for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1) dipedon (A2)		Polyvalue Belov MLRA 1498		(S8) (LRF	RR,		Juck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)	
-	stic (A3)		Thin Dark Surfe		LRR R, MI	RA 149B		Aucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky N			, <b>L</b> )	22224000	Surface (S7) (LRR K, L, M)	
	i Layers (A5) i Below Dark Surfac	e (A11)	Loamy Gleyed Depleted Matrix		2)		-	ilue Below Surface (S8) (LRR K, L) lark Surface (S9) (LRR K, L)	
	rk Surface (A12)	,	Redox Dark Su					anganese Masses (F12) (LRR K, L, R)	
	fucky Mineral (\$1)		Depleted Dark					ont Floodplain Soils (F19) (MLRA 1498)	
	ileyed Malrix (S4) ledox (S5)		Redox Depress	ecns (ro)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)		
Stripped	Matrix (S6)						Very Shallow Dark Surface (TF12)		
Dark Su	rface (S7) (LRR R, N	MLRA 1498	3)				Other	(Explain in Remarks)	
<sup>3</sup> Indicators of	l hydrophytic vegetal	tion and we	tiand hydrology mu:	st be pres	ent, unies:	s disturbed	or problemation	3.	
1	Layer (If observed):								
							Hurdrie Sall	Present? Yes No 🔀	
Depth (in Remarks:	ches):				graphicoconsistential and security to the	enzzoren ezenetakoa	nyunc sun		
Remarks:									
Į.									



DIRECTION	FEATURE ID	089D	DATE
South	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/25/2012

	PRM – Northcentral and Northeast Region
Project/Site: Strum Lublin City	County: <u>Fau Clare (a</u> Sempling Date: <u>9/25//</u> 2
Applicant/Owner: DPC	State: LVI Sampling Point: 09201
	ion, Township, Range: 523 TaGN R5W
Landform (hillstope, terrace, etc.): \[ \frac{10000}{1000000000000000000000000000000	lief (concave, convex, none):Stope (%):
Subregion (LRR or MLRA): LBR E Lat: 44 42 L	14.91 Long: -90 56 56.53 Datum: NAD 87
Soil Map Unit Name: Alluvial Land	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation W., Soil W. or Hydrology N significantly distu	
Are Vegetation N. Soil N. or Hydrology naturally problem	
	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area within a Wetland? Yes No  If yes, optional Wetland Site ID:
Photo # 141 ( proposed pole local HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (86)
Surface Water (A1) Water-Stained Leave	<del></del>
High Water Table (A2) Aquatic Fauna (B13)	
∑ Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Oc	
· · · · · · · · · · · · · · · · · · ·	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	<del></del>
	on in Titled Soils (C6) Geomorphic Position (D2) (C7) Shallow Aquitard (D3)
Iron Deposits (B5) Thin Muck Surface (i Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	
Spersely Vegeteled Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (Inches):	
Water Table Present? Yes No Depth (Inches):	
Saturation Present? Yes No Depth (inches):	Welland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pri	evious inspections), if available:
Remarks;	Toble on the control of the control
iterial 45.	

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1.	* *************************************			That Are OBL, FACW, or FAC:(A)
2.				Total Number of Dominant
3.				Species Across All Strata:(B)
4,		-	-	Percent of Dominant Species That Are OBL FACW or FAC: 50 (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7,		***************************************		Total % Cover of Multiply by:
	<del></del>	= Total Cov	/er	OBL species <u>50</u> x1 = <u>80</u>
Sapling/Strub Stratum (Plot size:)		ì		FACW species 2 x 2 = 26
1. Spiraca alba	3	N	FACW	FAC species O x3 = O
2. Bubus alleghonionsis	7	U	CACL	FACU species 7 x4 = 28
5 DANIES O LEGUISITE			FILL	UPL species x 5 =
3.			***************************************	Column Totals: 100 (A) 134 (B)
4				7
	-			Prevalence Index = B/A = 1,34
5.				
6,				Hydrophytic Vegetation Indicators:
7.			***************************************	1 - Rapid Test for Hydrophytic Vegetation
	10)	= Total Co	/er	2 - Dominance Test is >50%
		- 10.0.00	· • ·	X 3 - Prevalence Index is ≤3.0°  3 - Prevalence Index is ≤3.0°
1. Bulgas Mispidus	10	N	FAKW	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
2 Casex Stirita	80	Ÿ	OBL	Problematic Hydrophylic Vegetation¹ (Explain)
3.				Indicators of hydric soil and welland hydrology must
4,				be present, unless disturbed or problematic.
5.				
1				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				Sanling/shorth Weath plants less than 3 in DOM
9				Sapling/shrub – Woody plants less than 3 in. DBH 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.	_			or size, and woody prants less than 3 20 h tell.
12.				Woody vines - All woody vines greater than 3.28 ft in
	an	= Total Co	ner .	height.
		, = 10ta: CO	V-G-1	
Woody Vine Stratum (Plot size:)				
1,				
2.				
3.				thrdraphydia
<b>7</b> ,				Hydrophylic Vegetation /
4.		-		Present? Yes X No
		= Total Co	ver	" / ( " " " " " " " " " " " " " " " " "
Remarks: (Include photo numbers here or on a separate	sheet.]		d=1	

Sampling Point <u>C9201</u>

•	^	ı	1
J	v		-

l	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix Color (moist)	%	Color (moist)	∝ Feature %	s Type	Loc*	Texture	Remark	s
N-2	1042 4/3	100					loan		<del> </del>
3-8	2.546/3	90	104R 5/6	10		PL	Clay loans		
1			10/1 /6	10		16			***************************************
8 -12	1048 2/1	100	1	. ———			Silticam	Organics	
12-18	2,54 5/2	100				***************************************	Sand _		
	allula de apparente que de referent de una de una describación de la constanta.						. <u> </u>	······	
				-		<b>**********</b>	-		
		***************************************						****	
	***************************************		1			***************************************			
<del></del>				-		<del></del>		-A	
		***************************************	***************************************	• *************************************	· <del></del>	************	<u> </u>		
¹Type: C≕C Hydric Soll	oncentration, D=Depl	etion, RM	⊨Reduced Matrix, №	S=Maske	d Sand Gr	8:05		L=Pore Lining, M=6 Problematic Hydr	
Histosol			Polyvalue Belo	w Surface	(SA) (LR)	RR		(A10) (LRR K, L,	
	pipedon (A2)		MLRA 1498		(00)(211			ine Redox (A16) (L	
	istic (A3)		Thin Dark Surfa					ty Peat or Peat (S3	
	en Sulfide (A4) d Layers (A5)		Loamy Mucky I			., L)		ice (S7) (LRR K, L, Below Surface (S8	
1	d Below Dark Surface	(A11)	Depleted Matrix		-,			Surface (S9) (LRR	· · · · ·
	ark Surface (A12)		Redox Dark Su	-			-	anese Masses (F1)	
-	Mucky Mineral (S1) Słayed Matrix (S4)		— Depleted Dark					Floodplain Soils (Fi xēc (TA6) (MLRA 1	
	Redax (S5)		7					nt Material (F21)	,,
,	d Matrix (S6)		<b>_</b> .					ow Dark Surface (1	(F12)
Dank Su	urface (S7) (LRR R, W	ILRA 149	5)				Other (Exp	dain in Remarks)	
<sup>3</sup> Indicators o	d hydrophytic vegetat	ion and w	elländ hydrology mu:	st be pres	ent, unles	s disturbe:	d or problématic.		
	Layer (if observed):								
Туре:								w V	*
	iches):				u saan say oleh kasaal min soom kasaal ka va	annalices storic considerations is:	Hydric Soll Pre	seni7 Yes	No
Remarks:									

		RM - Northcentral and Northeast Region
Project/Site: Strum Lublin	City/C	county: Ear Claire (6 sampling Date: 9/25/12
Applicant/Owner: DPC		State: 41T Sampling Point: 09203
Investigator(s): KB+AJ	Section	on, Township, Range: <u>S23 T260 R5W</u>
Subregion (LRR or MLRA): LRR	Lat: 44 42 45.	ief (concave, convex, none):
Soil Map Unit Name: Allovial Laur		NWI classification:
		es No (If no, explain in Remarks.)
Are Vegetation N. Soil N. or Hydrolog		
Are Vegetation Soil or Hydrolog	in the state of th	
-		npling point locations, transects, important features, etc.
SOLVENARY OF FINDINGS - AUGCIIS	site map snowing san	ipling point locations, transects, important leatures, etc.
	No_ <u>X</u>	Is the Sampled Area within a Wetland? Yes No
Hydric Soil Present? Yes	No <u> </u>	
Welland Hydrology Present? Yes Remarks: (Explain alternative procedures here	No <u>&gt;</u>	If yes, optional Wetland Site ID:
Photo # 143, 144	, 145	
HYDROLOGY	/	
Wetland Hydrology Indicators:	<del></del>	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required	d check all that apply)	Surface Soli Cracks (86)
Surface Water (A1)	Water-Stained Leave	
High Water Table (A2)	Aquatic Fauna (B13)	
Saturation (A3)	Mari Deposits (B15)	-
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Od Ovidized Rhizoscher	lor (C1) Crayfish Burrows (C8) es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced	
Algal Mat or Crust (B4)		on in Titled Solls (C6) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (0	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Rer	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (88	b)	FAC-Neutral Test (D5)
Field Observations:	V =	
Surface Water Present? Yes No	o X Depth (inches): Depth (inches):	Manufacture desired de
	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes No (includes capillary fringe)	Deput (inches).	Tratiand Hydrology Present? 145 145
Describe Recorded Data (stream gauge, moni	itoring well, aerial photos, pre	vious inspections), if available:
Remarks;	a kalanakan saparinan kota surian tahan surian kanasan kalan suriah kanasan tahan surian surian surian kanasan	

	Absolute	Dominant	Indicator	La. (
Tree Stratum (Ptol size: )	% Cover	Species?		Dominance Test worksheet:
1. Pinus Stiobus	20	4	FACU	Number of Dominant Species /
1. 277383				That Are OBL, FACW, or FAC:(A)
2 Oroseus Pubra	20	<u> </u>	FACY	Total Number of Dominant
3				Total Number of Dominant Species Across All Strata: (B)
4,	-	***************************************	***************************************	Percent of Dominant Species That Are ORL FACIN or FAC: 20 (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7,				Total % Cover of, Multiply by:
· · · · · · · · · · · · · · · · · · ·				
	40	= Total Co	ver	OBL species <u>25</u> x1 = <u>25</u>
Sapling/Shrub Stratum (Plot size:)				FACW species x2 = Z
	5	V.	FACU	FAC species x 3 =
1. Pinus strobus				FACU species 40 x4= 184
2. Quercus tubra	1	N	FACU	FACU species X4 =
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	UPL species <u>20</u> x 5 = <u>100</u>
3.		-	-	Column Totals: 92 (A) 311 (B)
4				
				Prevalence index = B/A = 3.3
5.				
6,				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7.		***************************************	-	2 - Dominance Test is >50%
	<u>lo</u>	= Total Co	ver	
Herb Stratum (Plot size:)				3 - Prevalence Index is £3.01
neio silaum (Pio size	0.		- Service Land	4 - Morphological Adaptations (Provide supporting
1. Bromus mermis	<u>20</u>		UPL	data in Remarks or on a separate sheet)
2 Sparting podenta	1	N	FACW	Problematic Hydrophytic Vegetation (Explain)
		<del></del>		
3. Calamagnostis canadinas	25		001	The discourse of the original and second to order the control of
4.				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			*****************	be present, divess assurbed of problement.
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.				Continue to the Management is an though the Dist
				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 5.20 it (1 iii) tais.
10.				Herb - All herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
11,		• •		
12.				Woody vines - All woody vines greater than 3.28 ft in
		= Total Co		height.
		= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1,		-		
2.		-		
_				1
3		-		Hydrophytic Vegetation
4.				Present? Yes No
		= Total Co	MART	103
Opposite Unally do phate provide an income			· · <del>- ·</del> ·	
Remarks: (Include photo numbers here or on a separate	sneet.)			

1	cription: (Describe I	o the depti				or confirm	n the absence of in-	dicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	∝ Feature %		Loc*	Texture	Remarks
0-2	1041/2	100		• *************************************		<del></del>	10am	
3-11	104R 4/3	100	a shark to the first time of the state of th	-	***************************************		Surdy lown	
11-18	2.54 6/4	100	·	* *************************************	***************************************	***************************************	Sardy loan	
16.18		100					See 12 1 100 11 1	
		<del></del>	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	<del></del>		**********		1007-00-1007-00-1007-00-1007-1007-1007-
		-		-	-	***		
	eremment of the second	-		· · · · · · · · · · · · · · · · · · ·		***************************************	**************************************	
	<u> </u>	-				-		
						***************************************		
				***************************************	-			
Type: C=C	oncentration D=Dept	letion, RM=	Reduced Matrix, N	S=Masked	Sand Gr	ains	<sup>2</sup> Location: PL=	=Pore Lining, M=Matrix.
Hydric Soll	Indicators:	action processing and action of the constraints		CLAUMEN CONVINCENCY HOLD	a en especia en calcar a ejam a ejementa anti-	a de maior d	Indicators for P	Problematic Hydric Solis <sup>‡</sup> :
Histosol	(A1) pipedon (A2)	-	Polyvalue Belo MLRA 1498		(\$8) ( <b>LR</b> 1	₹ R,		(A10) (LRR K, L, MLRA 1498) e Redox (A16) (LRR K, L, R)
	istic (A3)		Thin Dark Surfa	-	.RR R, MI	LRA 1498		Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)	-	Loamy Mucky I			, L)		e (\$7) (LRR K, L, M)
	d Layers (A5) d Below Dark Surface	: (A11)	Loamy Gleyed Depleted Matrix		!)			lelow Surface (S8) (LRR K, L) Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Su					nese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)	-	Depleted Dark Redox Depress		7)			loodplain Soils (F19) (MLRA 1498)
-	Sleyed Matrix (S4) Redox (S5)	_	Redux Depress	sons (re)				fic (TA6) (MLRA 144A, 145, 149B)  Material (F21)
Stripped	l Matrix (S6)							w Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	1LRA 149B	)				Other (Expli	ain in Remarks)
<sup>3</sup> Indicators o	si hydrophytic vegetat	ice and wel	land hydrology mu:	st be presi	ent, uni <del>es</del> :	s disturbed	d or problematic.	
	Layer (If observed):							
							Hydric Soil Pres	sent? Yes No
and the same and t	ches):	menderstaanskilder onder Sewen Sewen				***************************************	nyanc son Pres	
Remarks								



DIRECTION	FEATURE ID	092D	DATE	
Northwest	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/25/2012	

## COMMENTS

Wetland is located adjacent to Horse Creek (seen in center frame).

WETLAND DETERMINATION DA	ATA FORM - Northcentral and Northeast Region
Project/Site: Stein Lublin	City/County:
Applicant/Owner: DPC	State: W Sampling Point: 093 D
Investigator(s): FB + AJ	State: W   Sampling Point: 093 D   Section, Township, Range: 524 T26N R5W
Landform (hillslope, terrace, etc.): Plain	Local reflef (concave, convex, none): \( \lambda \to \to \) Slope (%)
Subregion (LRR or MLRA): LRR C Let: 44 4	2 45,00 Long: -90 56 26.06 Datum: NAD 83
and the same of th	↑ Soil S NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of	*
Are Vegetation N. Soil N. or Hydrology N. significa	
Are Vegetation N. Soil N. or Hydrology N naturally	problematic? (If needed, explain any answers in Remarks.)
	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate r	
Photo # 146 Structure #168	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	DIVI Surface Soil Cracks (B6)
Surface Water (A1) Water-Stein	ned Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fal	
Saturation (A3) Mari Depos	
	Sulfide Odor (C1) Crayfish Burrows (C8)
	hizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	of Reduced Iron (C4) Stunted or Stressed Plants (D1)
	Reduction in Titled Soils (C6) Geomorphic Position (D2)
	Surface (C7) Shallow Aquitard (D3)
<del></del>	lain in Remarks) Microtopographic Relief (D4)
Sparsely Vegeteted Concave Surface (B8)	✓ FAC-Neutral Test (D5)
Field Observations: Surface Water Present?  Yes No Depth (Inc.)	h anh
Water Table Present? Yes No ✓ Depth (incompared to No ) (incompared to No ) (incompared to No )	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial p	holos, previous inspections), if available:
Remarks,	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant Species Across All Strata: (B)
3,	<u></u>	***************************************		Species Across Air Stratts
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:)				FACW species x 2 =
1.				FAC species x3 =
2.				FACU species x 4 =
				UPL species x 5 =
3.			***************************************	Column Totals: (A) (B)
4.				Character and Indian as DIA as
5.				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
		= Total Co	ver	3 - Prevalence Index is ≤3.01
Herb Stratum (Plot size)  1. Rubus his pulus	76	4	FACU	4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
,				Problematic Hydrophytic Vegetation¹ (Explain)
2. Cala magostis Canadana		<u> </u>	OBL	Prodematic Hydrophytic Vegetation (Explain)
3. Scirpus cyperinus	2	,	OBL	Indicators of hydric soil and welland hydrology must
4. Sparting Dectinata	2	<b>4</b>	FACW	be present, unless disturbed or problematic.
5. Schoemoplectus tabernaemontani	5	N	OBL	Definitions of Vegetation Strata:
6.		***************************************		The 16th advantages 2 is 17.0 and as many in dispersion
7		• *************************************	-	Trae – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapting/shrub - Woody plants less than 3 in. DBH
9				and greater than or equal to 3.26 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 wines - All woody vines greater than 3.28 ft in
12.	89	= Total Co		height,
	D.	= Total Co	vei	
Woody Vine Stratum (Plot size:)				
1,				
2		-		
3				Hydrophylic
		• ••••••		Vegetation
4.		• ••••••••••••		Present? Yes No
		= Total Co	wer	
Remarks: (Include photo numbers here or on a separate s	ineet.)			

l	• •	to the dep	th needed to docur			or confirm	n the absence of in	dicators.)	
Depth (inches)	Metrix Color (moist)	%	Color (moist)	x Feature %		Loc	Texture	Remarks	
0-4	1042 4/1	100					Small loan		
4-8	104R4/2	100				<del></del>	S. It loans	i med a mandar kan serian kedari kesken a medara a medi seken di belik ki ki ki ki ki kesa dalam pelanbari diba kedalama.	
8 - 1/1	2,54 4/2	198	104R4/6	2	~	PL		Clay lens at 15"	
	2131 112		1011 10			100	3	· -	
				-		***************************************	<u> </u>	RAIN	
		-				***************************************		<u> </u>	
			***************************************				Name and the second sec		
		***************************************	***************************************						
			<del></del>						
		- *************************************	Aleganicalization	-	-		<del>printeral de la literatura de la compania</del>		
	женичного фонтону као на постана очествення постана очествення очествення постана очествення очественны очествення очеттвення очествення очест		44000000000000000000000000000000000000	= e					
mentioned hoursetpropoles/cubicables/inc	ledaptiyas pulaseda kilophiloka espellari in lokka elikik tulak eta kilophiloka in kilophiloka eta kilophiloka	letion, RM	=Reduced Matrix, M	S=Masker	d Sand Gr	Bins .	en en en el la gran de la recommenda de la compansión de la compansión de la compansión de la compansión de la	=Pore Lining, M=Matrix.	
Hydric Soll			Dohamius Daim	Curlona	/C01/186	3 B		roblematic Hydric Solis*: (A10) (LRR K, L, MLRA 149B)	
Histosol	oipedon (A2)		Polyvalue Below		(30) (LIKI	ν,		e Redox (A16) (LRR K, L, R)	
	stic (A3)		Thin Dark Surfa		•		-	Peat or Peat (S3) (LRR K, L, R)	
	in Sulfide (A4) d Layers (A5)		Loamy Mucky I Loamy Gleyed	-		, L)	-	e (S7) (LRR K, L, M) lelow Surface (S8) (LRR K, L)	
Deplete:	i Below Dark Surfac	e (A11)	Depleted Matrix	x (F3)				turface (S9) (LRR K, L)	
1	ark Surface (A12) fucky Mineral (S1)		Redox Dark Su Depleted Dark				_	nese Masses (F12) (LRR K, L, R) loodplain Soils (F19) (MLRA 1498)	
	Sleyed Matrix (S4)		Redox Depress				Mesic Specia (TAG) (MLRA 144A, 145, 149B)		
	tedox (S5) I Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)		
	ríace (S7) (LRR R, I	MLRA 149	B)				Other (Explain in Remarks)		
1							A		
1	i nydrophydd vegeta Layer (if observed):		elland hydrology mu:	st be pres	ent, unies:	s a stumbed	or problematic.		
Туре:									
Depth (in	ches):						Hydric Soll Pres	ent? Yes No X	
Remarks	eneganie na en region produktion in manuel per consideration de la convention de la convention de la convention		a digo, de la comina a superior de comina (e e presenta de comina de comina de comina de comina a que de comin	i grady na global grady a grady	ojekuju port nejširpuvoji iš kilgologijalico	A School and Artistic Architecture (Artistical)	ternis to constituti e constituti		

WETLAND DETERMINATION DATA FORM - North	=			
Project/Site: Strum Lublin City/County: Fan	Claire ( Sampling Date: 9/2 5//2			
Applicant/Owner: DPC	State: WI Sampling Point: 0950			
Investigator(s): KB+AJ Section, Township, R	state: WL Sampling Point: 0950 tange: 524 T25N R5W			
Landform (hillstope, terrace, etc.): defines a Local relief (concave, co	nvex, none): <u>/                                   </u>			
Subregion (LRR or MLRA): (12 12 15,09 Lat. 44 42 45,09 Lat.	ong: <u>-90 55 45.48</u> Datum: <u>NAD8.3</u>			
soil Map Unit Name: Ludinaton + Humbird Soils				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No				
Are Vegetation				
Are Vegetation _ No. Soil _ No. or Hydrology _ No naturally problematic? (If r	needed, explain any answers in Remarks )			
SUMMARY OF FINDINGS – Attach site map showing sampling point				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?  Yes No Is the Sample within a Wetl.  No If yes, optiona	V			
Remarks: (Explain alternative procedures here or in a separate report.)	i Wetiand Site ID.			
Structure # 176  Pholo # 147  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) Mart Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2) Oxidized Rhizospheres on Living Ro				
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4) Recent fron Reduction in Titled Soils  Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2) Shallow Aquitard (D3)			
Iron Deposits (B5) Thin Muck Surface (C7) Other (Explain in Remarks)	Microtopographic Relief (D4)			
Spersely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes No X Depth (Inches):				
Water Table Present? Yes No Depth (Inches):				
Saturation Present? Yes No X Depth (Inches): V	Welland Hydrology Present? Yes X No			
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ns) if available:			
<b>3-3-</b>	·			
Remarks:	aucussos are sacresion successos successos me encorrelatorismos estar de escriptor e ser punt hierón encusações estar actual de circular de encorrelatorismos estar de encorrelatorismo			

### **VEGETATION** – Use scientific names of plants.

Sampling Point: 09501

T Ol- (m-1-i		Dominant Indicato	t Dominance fast workshadt
Tree Stratum (Plot size:)		Species? Status	Number of Dominant Species
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 Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)			FACW species x 2 =
1,			FAC species x 3 =
2			FACU species x 4 =
			UPL species x 5 =
3.			Column Totals: (A) (B)
5			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
6,			1 - Rapid Test for Hydrophytic Vegetation
7.			2 - Dominance Test is >50%
		= Total Cover	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size: )  1. Bubas Nisolialis	50	Y FACE	4. Marchalagian Adaptations Demide supporting
2. Stilles Cupelbase	15	N. 58L	
3. Schoenoplectus tabernaemontani	15	N OBL	
4. Junius tenuis		N FAC	Indicators of hydric soil and welland hydrology must
			be present, unless disturbed or problematic.
5. Calamagostis Canadass			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.		-	- Sapiling/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.
			Woody vines - All woody vines greater than 3.28 ft in
12.	97	= Total Cover	height.
	1 4	,≕ Total Cover	
Woody Vine Stratum (Plot size:)			
1,			_
2.			
3			- Hydrophytic
1		·	Magnetition
7:			Present? Yes No
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

Sampling Point 09501

SOIL

Profile Desc	cription: (Describe	to the de	pth needed to docum	nent the	Indicator	or confirm	n the absence of Indic	ators.)		
Depth (inches)	Matrix (malet)	%	Redox Features Color (moist) % Type Loc*		Texture	Remarks				
(inches)	Color (molst)	100	Color (moist)		Type		Silf loan	Remarks		
0 > 3	1011 14/									
3-14	104R4/2	100					sand -			
14-18	2.54 6/4	95	104R4/6	5	C	PL	LOAMY Sand			
		-			* ************	***************************************		<u>na kung campang pelujung nga kilang pagkan pendalam mada nekanakilim di mahi kebapa</u>		
<del>                                     </del>				<del></del>	<del></del>	***************************************				
		_			-			the transfer of the transfer o		
***************************************				-						
		_				-				
				-			**************************************			
471.411.		-								
Type: C=C	oncentration D=Der	eletion RI	M=Reduced Metrix, M	S=Maske	d Sand Gr	ains	<sup>2</sup> Location PL=Pi	ore Lining, M=Matrix.		
Hydric Soll			oosalmaarinkuurina alkasallikeikin ole kiinkaallandirin malannari kikkin ole tadakkeenin. Virota ariikk	DOMESTIC STREET, STREE	ALL PROPERTY OF THE PARTY OF TH	ALIAN PROPERTY AND ALIAN PROPERT		blematic Hydric Solis <sup>3</sup> :		
Histosol	• •		Polyvalue Belo		(S8) (LR	RR,		0) (LRR K, L, MLRA 149B)		
	pipedon (A2)		MLRA 1498 Thin Dark Surfa	•	1000 M	1 0 4 4 4 0 0		Redox (A16) (LRR K, L, R) eat or Peat (S3) (LRR K, L, R)		
_	istic (A3) en Sulfide (A4)		Loamy Mucky I					S7) (LRR K, L, M)		
_	d Layers (A5)		Loamy Gleyed		2)		Polyvalue Bek	w Surfece (S8) (LRR K, L)		
	d Below Dark Surfac ark Surface (A12)	æ (A11)	Depleted Matrix Redox Dark Su	• •	<b>1</b>			face (S9) (LRR K, L)		
	viucky Mineral (S1)		Depleted Dark				Iron-Manganese Masses (F12) (LRR K, L, R Piedmont Floodplein Soils (F19) (MLRA 149			
-	Sleyed Matrix (S4)		Redax Depress	ions (F8)				(TAG) (MLRA 144A, 145, 149B)		
	Redox (S5)						Red Parent Ma	aterial (F21) Dark Surface (TF12)		
	i Matrîx (S6) mace (S7) (LRR R, i	MLRA 14	9B)				Other (Explain	·		
3Indicators o	d hydrophytic vegeta	ition and	welland hydrology mu:	st be pres	ent, unles	s disturbed	d or problematic.			
Restrictive	Layer (If observed)	:								
Тура:			<del></del>					X		
CONTRACTOR	ches):		A CONTRACTOR A CONTRACTOR AND A CONTRACTOR AND A CONTRACTOR A CONTRACTOR AND A CONTRACTOR A	ga ghilaggaig in Callinhyai i i in chia	agustalianus Provinciation (Provinciation (Provinci		Hydric Soli Presen	117 Yes No		
Remarks:										
ı										

		RM – Northcentral and Northeast Region
Project/Site: Strum Lu	<u>. 61/m</u> chy/c	County: East Classe Co Sampling Date: 1/25/12
Applicant/Owner: DPC		State: W.T. Sampling Point: 09502
	Secti	on, Township, Renge: <u>524 T260 R5W</u>
Landform (hillstope, terrace, etc.):	Cope Local rel	ilef (concave, convex, none): 10 march Stope (%)
Subregion (LRR or MLRA): LRR	K Lat: 44 42 45	5.07 Long: 90 55 44.19 Deturn: NAD 83
Soil Map Unit Name: Fair Chil	do Memillan Sa	NWI classification:
Are climatic / hydrologic conditions on th	e site typical for this time of year? Y	res No (If no, explain in Remarks.)
		rbed? Are "Normal Circumstances" present? Yes No
Are Vegetation N. Soil N. or H		
SUMMARY OF FINDINGS - At	tach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No	Is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present?	Yes No	If yes, optional Wetland Site ID:
Photo # 14/8	5, 149	
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is	required, check all that apply)	Surface Soli Cracks (86)
Surface Water (A1)	Water-Stained Leave	es (B9) Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	
Saturation (A3)	Mad Deposits (B15)	<del></del>
Water Marks (B1)	Hydrogen Sulfide Oc	
Sediment Deposits (B2)		res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduce	on in Titled Solls (C6) Geomorphic Position (D2)
Argan Mat & Cross (64) Iron Deposits (65)	Thin Muck Surface (	
Inundation Visible on Aerial Image		
Spersely Vegeteted Concave Surf	- · · · · · · · · · · · · · · · · · · ·	FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No <u> </u>	Washington and Grander
	No 🗡 Depth (Inches):	
Saturation Present? Yes (includes capillary fringe)	No 🗡 Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gaug	e, monitoring well, aerial photos, pr	evious inspections), if available:
	- · · ·	
Remarks	navitassamaintassata variatoria sata tarota sata tarota en esta esta en esta en esta en esta en esta en esta e	

### **VEGETATION** – Use scientific names of plants.

Sampling Point: 09502

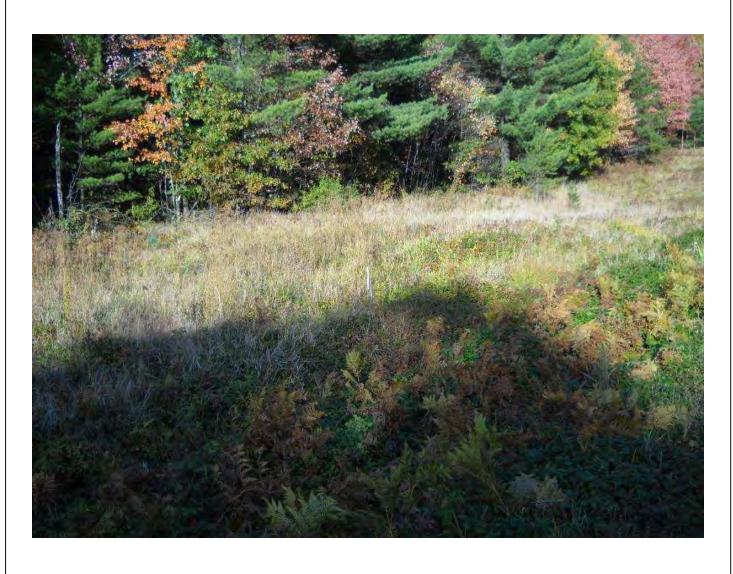
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Ptol size:)	% Cover	Species?	Status	
1.				Number of Dominent Species That Are OBL, FACW, or FAC: (A)
				11101770 0000;177017, 017700,
2				Total Number of Dominant Species Across All Strate: (B)
3,		-	***************************************	Species Across All Strata: <u>Ø</u> (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:
		= Total Cov	/BF	OBL species
	<u> </u>	- Total Cov	<b>4€</b> 1	FACW species
Sapting/Sterub Stratum (Plot size:)		u	<b>.</b> .	FACVV species X2=
1. Pubus allections	5		FACH	FAC species
2.				FACU species 95 x4 = 380
				UPL species x 5 =
3,				Column Totals: 95 (A) 380 (B)
4				
				Prevalence Index = B/A =
5.				
6,				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	.a.	2 - Dominance Test is >50%
		~ Total Co	¥CI	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)	_	. )		4 - Morphological Adaptations* (Provide supporting
1. Festuca Dratensis	96	4	FALU	data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation* (Explain)
2				Trocking Typrophysic Together (Explain)
3,				Indicators of hydric soil and welland hydrology must
4				be present, unless disturbed or problematic.
				processing and a second
5				Definitions of Vegetation Strata:
6.			***************************************	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8.				Sapling/shrub - Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb All herbaceous (non-woody) plants, regardless
1				of size, and woody plants less than 3.28 ft tall.
11,	<del></del>		-	
12.		. <del> </del>		Woody vines - All woody vines greater than 3.28 ft in height.
	90	= Total Co	ver	Height,
Minutes San Charles (Clab sine)		_		
Woody Vine Stratum (Flot size:)				
1.				
2.				
2				
3.		-		Hydrophylic Vegetation
4.				Present? Yes No
		≈ Total Co	Ver	
Remarks: (Include photo numbers here or on a separate	sheet 1			
130 marita, findia a priora maribula nella di la capazione	5.10 512,			
,				

Sampling Point: 09502

#### SOIL

Profile Descr	Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)								
Depth (inches)	Matrix Color (moist)	%	Redor Color (moist)	x Feature %		Loc	Texture	Remarks	
0-5	104R 4/2	106					loan		
5-18	104R 5/4	100					Damy	Sand	
		***************************************	***************************************	***************************************	***************************************		<del></del>		
		***************************************		***************************************					
***************************************	An incombination of the second	***************************************	***************************************	-	***************************************	***************************************	Ministration	taka palinya katangan ang katang ing palabahan pang katang kang pang katang pang katang pang katang pang katang	
	***************************************	-	<del></del>	***************************************		***************************************	***************************************		
***************************************	***************************************	***************************************	***************************************	***************************************	***************************************	***************************************	<del></del>		
		-		***************************************					
***************************************		****************		-	***************************************	***************************************	*****		
***************************************	***************************************	***************************************		Water and the same of the same	-	***************************************			
		***************************************	***************************************		***************************************	-	************************		
¹Type: C≕Co Hydric Soli k	en de la companya de	letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains		: PL=Pore Lining, M=Matrix. for Problematic Hydric Solis <sup>3</sup> :	
Histosol			Polyvalue Belov	v Surface	(S8) (LRF	R.		Auck (A10) (LRR K, L, MLRA 1498)	
Histic Ep	lpedon (A2)		MLRA 1498)	ı			Cosst	Prairie Redox (A16) (LRR K, L, R)	
Black His	stic (A3) n Sulfide (A4)		Thin Dark Surfa Loamy Mucky M				-	Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L, M)	
	Layers (A5)		Loamy Gleyed I			<del>, -,</del>		live Below Surface (S8) (LRR K, L)	
	l Below Dark Surface rk Surface (A12)	(A11)	Depleted Matrix Redox Dark Sur					lark Surface (S9) (LRR K, L) langanese Masses (F12) (LRR K, L, R)	
	ucky Mineral (S1)		Depleted Dark S					ont Floodpisin Soils (F19) (MLRA 1498)	
Sandy G	leyed Matrix (S4)		Redox Depress				Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5) Matrix (S6)							arent Material (F21) Shallow Dark Surface (TF12)	
	face (S7) (LRR R, M	ILRA 149	B)					(Explain in Remarks)	
			etiand hydrology mus	t be prese	ent, unless	d sturbed	or problematic	· ·	
	.ayer (if observed):								
	hes]:						Hydric Soll	Present? Yes No X	
Remarks:		MCTHOLDESHADINATION OF THE			siai esiat mentesia esiat mentesia esiat	Manadad shi kalanda kalada da calah kalani kalan			

# Strum-Lublin 69kV (N-3) Transmission Line Rebuild Project Phase I: Strum Tap to Willard Tap



DIRECTION	FEATURE ID	095D	DATE
Northeast	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/25/2012

**102D** 

	FORM - Northcentral and Northeast Region
Projectisite: Strum Lublin	city/county: FC/K/K CO sampling Date: 9/25//2
Applicant/Owner: DPC	State: WI Sampling Point: 10201
Investigator(s): KB+AJ	State: WI Sampling Point: 10201 Section, Township, Range: SIT TAGN RUW
Landform (hillstone terrane etc.): As Direction	cal reflef (concave, convex, none): (OACOUR Stope (%):
Subregion (LRR or MLRA): LTZRK Lat: 44 43	55.23 Long: -96 53 258 Datum: NAD 83
Soil Map Unit Name: Fairchild-Elm Lake cox	M D/EX NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of ye	
	disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation N Soil N or Hydrology N naturally pro	blematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	Within a Wetland? Yes No
Remarks: (Explain alternative procedures here or in a separate report	t.)
	And the second s
Stretur 219 Photo 150	
There is a contract of the con	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	The state of the s
Surface Water (A1) Water-Stained	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2) Aquatic Fauna	To the state of th
Seturation (A3) Man Deposits ( Water Marks (B1) Hydrogen Sulfi	
The second secon	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
The state of the s	educed iron (C4) Stunted or Stressed Plants (D1)
	duction in Titled Sails (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surf	
Inundation Visible on Aerial Imagery (B7) Other (Explain	in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inches	
Water Table Present? Yes No X Depth (Inches	
Saturation Present? Yes X No Depth (Inches (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks;	
en e	

Sampling Point: 10201 VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: \_\_\_\_\_) % Cover Species? Status Number of Dominant Species That Are OBL. FACW, or FAC: Total Number of Dominant Soecies Across All Strata: (B) Percent of Dominant Species That Are OBL, FACW, or FAC: \_ (A/B) Prevalence Index worksheet: Total % Cover of Multiply by: = Total Cover OBL species \_\_\_\_\_ x1 = \_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_ Sapting/Shrub Stratum (Plot size: \_\_\_\_\_) 1. Salex discolor 10 FAC species \_\_\_\_\_ x 3 = \_\_\_ FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ UPL species x5 = \_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B) Prevalence Index = B/A = \_\_\_\_\_ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation \_\_\_ 2 - Dominance Test is >50% 10 ≖ Total Cover 3 - Prevalence Index is ≤3.01 Herb Stratum (Plot size: \_\_\_\_ 4 - Morphological Adaptations (Provide supporting MBL 1. Persicaria sugittata data in Remarks or on a separate sheet) 0136 Problematic Hydrophytic Vegetation\* (Explain) 2 Symphotrichum Duniceum 10 OBL 3. Stir Dus Caperinas <sup>1</sup>Indicators of hydric soil and welland hydrology must 4 Secrous attouriers 20 ORL be present, unless disturbed or problematic. 5 Bottuchium lanceolatum 10 FACW Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapting/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. 11. Woody vines - All woody vines greater than 3.28 ft in Total Cover Woody Vine Stratum (Flot size: \_\_\_\_\_) Hydrophytic Vegetation Present? = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth									Remarks
(inches)	1048 4/2	<u>a</u>	Color (molet) 1048 <sup>3</sup> /6	<u>%</u>		PL	Texture	7	Remains
0-1		- 11	1098-76			<u> </u>	Siltyclan		4
<u> 4 - 11 - </u>	104R 2/1	100				***************************************	Sandy low	isea	Slightly Mucky
11-17	101R 36	100					Sand		_
17-19	104R 5/4	100				***************************************	<u>Sund</u>		***************************************
					***********		***************************************		
		-			*****				
				-					
***************************************	***************************************			-		***************************************			
**************************************				• ••••••••			-		
+0-0	XIII AMARINA A	-		* *************************************	***************************************	***************************************	***************************************		
			<del>namunia manunia manunia manunia manunia</del>		***************************************	***************************************	***************************************		
IT-SECOND	oncentration, D=Dep	lation Cit	Dadward Matrix 18				21 analisas	DiDara	Lining, M≃Matrix.
Hydric Soil		letion, KMP	Reduced Matrix, A	>=N185KCC	seno Gr	8:NS			uming, m=ivatrix. matic Hydric Solis <sup>3</sup> :
Histosol	(A1)		Polyvalue Belov	w Surface	(S8) (LRI	R,	2 cm Mu	ck (A10)	(LRR K, L, MLRA 1496)
	pipedon (A2)		MLRA 1498)		55 B W				ox (A16) (LRR K, L, R)
1	istic (A3) m Sulfide (A4)		Thin Dark Surfa Loamy Mucky k					-	or Feat (S3) (LRR K, L, R) (LRR K, L, M)
Stratified	d Layers (A5)		Loamy Gleyed	Metrix (F2		,			Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix Redox Dark Sur						: (S9) (LRR K, L) Masses (F12) (LRR K, L, R)
	Aucky Mineral (S1)		Depicted Dark :				***		ain Soils (F19) (MLRA 1498)
Sandy G	Sleyed Matrix (S4)		🔀 Redox Depress				Mesic Spocic (TA6) (MLRA 144A, 145, 149B)		
	ředox (S5) I Matrix (S6)						0,000,000	ent Mater Nacw Dark	ial (F21) k Surface (TF12)
	riace (S7) (LRR R, I	ALRA 1496	3)						Remarks)
3									
	f hydrophytic vegeta Layer (if observed):		tiand hydrology mus	t be presu	ent, unles	s disturbed	or problematic.		
Туре:	Edje: (II oosei red):								
" =	ches):						Hydric Soll P	resent?	Yes No
Remarks:			<del>and a market land to the second and /del>						

	FORM - Northcentral and Northeast Region
Project/site: Strum Lublin CI	ty/County: Clark co sempling Date: 7/5/
Applicant/Owner: DPC	State: WT Sampling Point: 10202
Investigator(s): KB + A() Se	ection, Township, Range: SIT TQGN R4W
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	relief (concave, convex, none): 1/2/2 Slope (%): /
Subregion (LRR or MLRA): LBR K Lat: 4443	
soil Map Unit Name: Ludington-Fairchild San	
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation N Soll N or Hydrology N significantly dis	
Are Vegetation Soil or Hydrology naturally probl	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX	Is the Sampled Area
Hydric Soil Present? Yes No Y	within a Wetland? Yes No X
Welland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
And the second of the second o	
01 1 10 10 100	
Vhoto # 15/, 152	<u> </u>
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 Le	
High Water Table (A2) Aquatic Fauna (B	The state of the s
Saturation (A3) Mari Deposits (51) Water Marks (B1) Hydrogen Sulfide	
	theres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Redu	and the control of the control of the first the control of the con
l Table 1917 Local Control Con	action in Titled Solls (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surfac	ce (C7) Shallow Aquitard (D3)
Inundation Visible on Acrial Imagery (B7) Other (Explain in	Remarks) Microtopographic Relief (D4)
Sparsely Vegetaled Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inches):	
Water Table Present? Yes No Depth (Inches):	
Saturation Present? Yes No Depth (Inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	
·	

ree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC: (A)
	1 . 1			Total Number of Dominant Species Across All Strate: 3 (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)
				Prevalence Index worksheet: Total % Cover of: Multiply by:
		= Total Cov	ær	OBL species
Sapling/Shrub Stratum (Plot size: )		<del>-</del>	FACY	FAC species 2 x3 = 6 FACU species 71 x4 = 284
Comptonia Pelegrina			WPL_	UPL species 7 x5 = 35 (B) Column Totals: 10.5 (A) 3.75 (B)
				Prevalence Index = B/A = 3.5
	in the second se	al-little and a second	<u> dinividualitational</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
	8	= Total Co	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0³
	60	4_	<u>FACU</u>	4 - Morphological Adaptations <sup>†</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Rubus hispidas 3. Botrupus vivainianus	<u>25</u> 5	<u> </u>	<u> </u>	Problematic Hydrophytic Vegetation (Explain)
Solidagi Consdessis Symphyptrichum lateriAlorum	5	<u>N</u>	EACL FAC	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:  Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
				Sapting/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
io			***************************************	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 fi tall.
11	05			Woody vines - All woody vines greater than 3.26 ft in height.
Noody Vine Stratum (Plot size:)	7-1-	= Total Co	/er	
1	- 1, 4 34		***************************************	
3.				Hydrophytic Vegetation
4	***************************************	= Total Co	ver	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling	Point:	10	2	02
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Profile Desc	ription: (Describe I	o the dep	th needed to docum	ent the in	ndicator	or confirm	the absence	of Indicato	rs.)	artuuri imitaisee makka kinninteita (makatan sinno kinninteita ma
Depth	Matrix Calad (name)			Features		Loc	Tandana		Remarks	
(inches)	Color (molst) 1048 4/2	95	Color (moist)	%		LOG	<u>Texture</u>		Kelligiks	
		100		******************	***************************************		Sardyl			
4-8	109R 4/4	100		***************************************	***************************************	***************************************	Sandy	100cm		
8-18	104R 4/6	100					Sand			
		* ************************************		***************************************	***************************************	***************************************	***************************************			
***************************************		-						***************************************		
<del></del>		-	***************************************	***************************************	***************************************			National Property and Property		
			<u> </u>	***************************************	<del></del>	<del></del>				
								***************************************		
				-				****		
***************************************		· MARIANTANA			***************************************		***************************************			***************************************
***************************************	***************************************				***************************************	***************************************	**************************************	***************************************	··········	<del></del>
		( - Li 50 ) 6					21	. 01 - 0	Lining, M≔Matr	
Hydric Soll	oncentration, D=Dep Indicators:	letion, it m	=Reduced Matrix, Mc	s=Masked	Sand Gr	BINS.			usning, sn≕ivisur matle Hydric S	
Histosol			Poływalue Belov	v Surface	(S8) (LR	RR,			LRR K, L, MLI	
diction.	pipedon (A2)		MLRA 1498)						cx (A16) (LRR	
	istic (A3)		Thin Dark Surfa Loarny Mucky M					_	or Feat (S3) (L (LRR K. L. M)	RR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Gleyed I			y ho)	-		Surface (SB) (Li	RR K. L)
	d Below Dark Surface	e (A11)	Depleted Matrix		,				(S9) (LRR K,	
	ark Surface (A12)		Redox Dark Sur				***************************************	_	Aasses (F12) (L	
,	Mucky Mineral (S1)		Depicted Dark S		7)				ain Soits (F19) : 83/MU BA 444/	
. —	Sleyed Matrix (S4) Redox (S5)		Redox Depress	ions (F6)				apousc ( IA) arent Mater	6) (MLRA 144 <i>)</i> (a) (F21)	L, 140, 1400)
-	Matrix (86)						ALCOHOL:		i Surface (TF1)	2)
Dark Su	rface (S7) (LRR R, N	ALRA 1491	3)				Other	(Explain in I	Remarks)	
Standing towns on	al hydrophylic vegetal		وريتم بمجملة بالمناجعة المحتوال	4 ha nesas	معامدة فم	e elistrophise	l ac arabiamati	•		
E	Layer (if observed):		alenu nyu dogy nu s	wine hyese	IIA, UINCS	2 DESCRIPTION	Tor problemat	U		
Type:										
Depth (in	ches):						Hydric Soi	Present?	Yes	No X
Remarks:										

# Strum-Lublin 69kV (N-3) Transmission Line Rebuild Project Phase I: Strum Tap to Willard Tap



DIRECTION	FEATURE ID	102D	DATE
Northeast	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/25/2012

WETLAND	DETERMINATION DATA FO	RM - Northcentral	and Northeast Region	1/2/1
Projectisite: Strum Lub	City/	county: Clark	Sampling (	Date: 2/26//
Applicant/Owner: PPZ		TX		g Paint 105 A 1
Investigatorisi: KB+AJ	Sect	ion, Township, Range:	517 Tagu R41	
Landform (hillslope, terrace, etc.):	The state of the s	lief (concave, convex, nor	iek Concoure	Stope (%):
Subregion (LRR or MLRA): LBR			0 52 55.68	Datum: WAS 87
Soll Map Unit Name: Ludinato			NWI classification: PE	
Are climatic / hydrologic conditions on		V	(If no, explain in Remarks.)	
			Circumstances* present? Y	es X No
is 1 was 1	6.7			
Are Vegetation, Soil, o	r Hydrologynaturally problem	iancy (ii needed, e	explain any answers in Remai	RS.)
SUMMARY OF FINDINGS - A	Attach site map showing sai	mpling point location	ons, transects, importa	int features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area		
Hydric Soil Present?	Yes No X	within a Wetland?	Yes No	
Welland Hydrology Present?	Yes No	If yes, optional Wetland	Site ID:	
Remarks: (Explain alternative proce	dures here or in a separate report.)			
The state of the s				er e
ew et stit wis sag				
1 1 7				
photo # 13:	/ w			
HYDROLOGY	randra de la composición del composición de la composición de la composición de la composición del composición de la com			
Wetland Hydrology Indicators:			Secondary Indicators (minim	ium of two required)
Primary indicators (minimum of one	is required: check all that apply)		Surface Soil Cracks (86	)
Surface Water (A1)	Water-Stained Leav	es (B9)	Drainage Patterns (B10)	)"
High Water Table (A2)	Aquatic Fauna (B13	)	Moss Trim Lines (B16)	
Saturation (A3)	Mari Deposits (B15)	•	Dry-Season Water Table	s (C2)
Water Marks (B1)	Hydrogen Sulfide O	dor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizosphe	res on Living Roots (C3)	Saturation Visible on Ae	rial Imagery (C9)
Drift Deposits (B3)	Presence of Reduce	,	Stunted or Stressed Pla	7 '
Algal Mat or Crust (B4)	Recent Iron Reduct	ion in Titled Salls (C6)	C Geomorphic Position (D	2)
Iron Deposits (B5)	Thin Muck Surface	, ,	Shallow Aquitard (D3)	
Inundation Visible on Aerial Ima	· · · · · · · · · · · · · · · · ·	emarks)	Microtopographic Relief	(D4)
Sparsely Vegetated Concave St	ırface (B8)		✓ FAC-Neutral Test (D5)	
Field Observations:	and the analysis of the same and			
1	No X Depth (Inches):			
	No X Depth (Inches):			V 33.3993
Saturation Present? Yes (includes capillary fringe)	No 🔀 Depth (inches):	Wetland I	Hydrology Present? Yes_	No
Describe Recorded Data (stream ga	uge, monitoring well, aerial photos, p	revious inspections), if ava	silable:	
1				
Remarks:				
1				

1,	% Cover	Dominant Species?		Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata:
4. <u> </u>			***************************************	Percent of Dominant Species That Are OBL, FACW, or FAC:
6. <u></u>		2 (%), 1 ·	11 12 12 12	Prevalence Index worksheet: Total % Cover of: Multiply by:
		= Total Cov	/er :	OBL species x1 =
Septing/Shrub Stratum (Plot size:)  1. Alnus Mana		a 113		FACW species x 2 =
1. Alhus mana	<u> 20                                    </u>			FAC species x 3 =
2. Quercus rubra	201 VIII - 1860	<u> </u>	FACU	FACU species x 4 =
3.	at Anguary monadona			UPL species x 5 =
		***************************************		Column Totals: (A)
4.				Prevalence Index = B/A =
<b>5</b> ,	*	***************************************		
<del>6</del> ,	-	-		Hydrophytic Vegetation Indicators:
7.		***************************************	-	X 1 - Rapid Test for Hydrophytic Vegetation
	21	= Total Co	⁄er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0'
1. Schoenoplectus tabernaemon		N	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supprinted at a in Remarks or on a separate sheet)
		لنات	062	Problematic Hydrophytic Vegetation (Explain
2 Sur pus pypeninus		<del></del>		
3. Functionen perforatum	- 4		CACW	Indicators of hydric soil and welland hydrology m
4. Calox Couptalo D3	75		DBL	be present, unless disturbed or problematic.
5 Rabus Mispidne	3	N	FACW	Definitions of Vegetation Strata:
6. Punty tilla Simplex	る	1	FACY	politically of Assured Anatal and the second
7. Janears tenuis	7	T.	FAC	Tree – Woody plants 3 in. (7,6 cm) or more in dia at breast height (DBH), regardless of height.
			1 910-	■ The first of the second
	-			Sapling/shrub - Woody plants less than 3 in. Di
9				and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb - All herbaceous (non-woody) plants, regar
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines - All woody vines greater than 3.2
	96	= Total Co	454	height.
		= Total Co	ver	
Woody Vine Stratum (Plot size:)				take the control
1,				
2.				
3.				Hydrophytic
				Venetation \
Α.	*** ***********************************	***************************************	****	Present? Yes X No
4.		= Total Co		3

Profile Desc	ription: (Describe t	o the dep	th needed to docum	ent the I	ndicator	or confirm	the absence	of Indicato	rs.)	
Depth	Matrix Color (male)			Features		1 2 2 3	Watdoos		Damasia	
(inches)	Color (molst)	<u>%</u>	10 YR 4/6	<u>**</u>	Type'	<u>Loc.</u>	<u>Texture</u>	· 1	Remarks	
0-5	<u>LD1'4</u>		104R7/6			<u>PL</u>	loany	JARD 1	redux only	0-2
5-8	2545/2	100		***************************************	***************************************	-	Sand	***************************************	W-5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
6-12	2,54 4/2	100	***************************************				Sand			
12-18	104K 4/6	100	***************************************	-	-	***************************************	sand	*Management of the state of the		
		***************************************	Section to the Control of the Contro	***************************************	***************************************	***************************************	**************************************	***************************************		
		Management of the same of the		***************************************	***************************************	***************************************	**************************************		***************************************	
***************************************										
***************************************		***************************************		************************	***************************************	***************************************		***************************************		
		MANAGEMENT			***************************************	***************************************	***************************************			
<del></del>			annesis de la companya del companya de la companya del companya de la companya de	***************************************	***************************************		<del></del>	<del></del>	-,	
¹Type: C=C	oncentration, D=Dept	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	<sup>2</sup> Location	: PL=Pore	Lining, M=Matri	×,
Hydric Soll					weeksen kalendarken kundistroore	electrical encourage in Superior			natic Hydric S	
Histosol	• •		Polyvalue Below		(S8) (LRF	₹ R.,			LRRK, L, MLF	
,	cipedon (A2)		MLRA 1498)		85 5 M	D 4 4 4000			ox (A16) (LRR I	
	istic (A3) en Sulfide (A4)		Thin Dark Surface Loamy Mucky M	. , .				-	or Peat (S3) (L1 (LRR K, L, M)	tr. K, L, R)
	d Layers (A5)		Loamy Gleyed N			, =-,			Surface (S8) (Lf	R K, L)
	d Below Dark Surface	(Å11)	Depleted Matrix		•				(S9) (LRR K, L	
Thick Da	ark Surface (A12)		Redicx Dark Sur	face (F6)					dasses (F12) (L	
	Aucky Mineral (\$1)		Depleted Dark S	-	7)				ein Solls (F19) (	
1	Sleyed Matrix (S4)		Redox Depressi	ons (F8)					6) (MLRA 144A	, 145, 149B)
-	Redox (S5)							arent Mater		n.
	l Matrix (86) rface (87) (LRR R, N	ILRA 1498	3)					(Exptain in i	r Surface (TF12 Remarks)	,
	f hydrophytic vegetat		Hand hydrology mus	t be prese	ent, unless	disturbed	or problemati	Ġ.		
	Layer (If observed):									
Type: Depth (in	ches):						Hydric Soil	Present?	Yes	No <u>X</u>
Remarks							-			

WETLAND DETERMINATION DATA FO	ORM - Northcentral and Northeast Region
Project/Site: Strue Lublin City	County: Clark Co sampling Date: 9/26/12
Applicant/Owner: DPC	State: WT Sampling Point: 10801
Investigator(s): K6+AJ Sec	tion, Township, Range: SILE TRUNK RHW
	elief (concave, convex, none):Slope (%):
Tarios et al. (1111) and a final and a fin	13.82 Long: -90 52 17.71 Datum: NA
Soil Map Unit Name: <u>Ludington</u> Sand	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation N. Soil or Hydrology significantly distr	
Are Vegetation N., Soil N., or Hydrology N naturally probler	matic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	impling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No No No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No No Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID:
Remarks: (Explain agemative procedures note of an a separate report)	
e de la companya de Companya de la companya de la compa	
Photo # 154	
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 Lear	ves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B1:	3) Moss Trim Lines (B16)
Saturation (A3) Mari Deposits (B15	
Water Marks (B1) Hydrogen Sulfide C	
	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduc	
Algal Mat or Crust (B4) Recent Iron Reduct Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in R	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D6)
Field Observations:	
Surface Water Present? Yes No X Depth (Inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes No X Depth (inches):	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	nrevious inspections) if available:
Lesuide recorded data (substit gauge, incinculing wen, actial proces, p	nevous mapadacis, ii availatio.
CAN CONTRACT	,
Remarks:	

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size:)	% Cover			Dominance Test worksheet:
additional production of the contract of the c				Number of Dominant Species 2
The state of the s			-	That Are OBL, FACW, or FAC:(A)
<b>2.</b> (1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	11.90			Total Number of Dominant
3.				Species Across All Strata: (B)
The state of the s		***************************************	***********	Percent of Dominant Species That Are OBL, FACW, or FAC: / OD (A/B)
5		***************************************		That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7,		4 - 1		,
			-	Total % Cover of Multiply by:
	***************************************	= Total Cov	ver:	OBL species x1 =
Sapting/Shrub Stratum (Plot size: )			You also di	FACW species x 2 =
· Source of Via	18	4	FACW	FAC species x 3 =
2 Populas trenyloides	7	4)	FACU	FACU species x 4 =
West requirement of the control of t			***************************************	UPL species x 5 =
3.				Column Totals: (A) (B)
4. n. grans sens				
				Prevalence Index = B/A =
5.			***************************************	
6,		***************************************	***************************************	Hydrophytic Vegetation Indicators:
7.		***************************************	***************************************	1 - Rapid Test for Hydrophytic Vegetation
	רו	= Total Co		2 - Dominance Test is >50%
		- I Origin C-Ch	4 <i>E</i> 1	3 - Prevalence Index is ≤3.0°
1. Calaragests Canadansis	40	۲	OBL	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1, Calaragrassis Corrects		<del>- 77</del>		
2. Triplasis purpures	<u> </u>		upl	Problematic Hydrophytic Vegetation (Explain)
3. Aquetis hyemalis	20	<u> </u>	FAC	
■ 2.	:	100	1995 F. 199	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
	-			be present, diness assurbed at preparitant.
5			-	Definitions of Vegetation Strata:
G.	• ************	***************************************	***************************************	
7 / 1				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	* *************************************	-	***************************************	at broad neight (DDII), regulation of neight.
8.				Sapilng/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.		***************************************	-	
12.		******************		Woody vines - All woody vines greater than 3.26 ft in
	42	= Total Co	ver	height.
Mind da Sen Markon (Platain)				
Woody Vine Stratum (Plot size:)				
1.				
2				
3		-		Literatements
	-			Hydrophylic Vegetation
4.		-	***************************************	Present? Yes No
	-	≖ Total Co	ver	**************************************
Remarks: (Include photo numbers here or on a separate	sheet.}			
	,			

	ription: (Describe	to the dept				or confirm	n the absence of inc	dicators.)
Depth (inches)	Matrix Color (molst)		Redox Color (moist)	Feature:	Type	Loc	Texture	Remarks
0-2	WYR 4/2	100					Town	
2-3	104R 3/1	100			***************************************		luan	
2 2/	10465/1	100		***************************************	***************************************	***************************************	Sandy long	
10 10	1048617			***************************************			- U T	
6-18	101117	100		*************	-		Sand_	
				*******	************			
	***************************************		***************************************		***************************************			
				***************************************	***************************************	***************************************	And the second s	
		e		***************************************	***************************************	***************************************		
					-			
***************************************	And control properties to the first of the f			400-000-000-000-00	***************************************		The second secon	
***************************************		and anticological designation of		***************************************		-		
***************************************		· <del>************************************</del>		***************************************		-	Accession of the second	
There Carc	oncentration, D=Dep	delica Dite	Darbinad Matrix 159		Sand Cr		2) ocation: DI =	Pore Lining, M=Matrix.
Hydric Soll		ICHOIL ICH	Neudced Manix, No.	>	rogrio ca			roblematic Hydric Solis*:
Histosol	* '		Polyvalue Belov		(\$8) (LR	₹R,		A10) (LRR K, L, MLRA 1498)
	pipedon (A2) istic (A3)		MLRA 1498) Thin Dark Surfa		00 B M	P & 4499	Workstone.	e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)
_	en Sulfide (A4)	•	Losmy Mucky M					e (S7) (LRR K, L, M)
	d Layers (A5)		Loamy Gleyed (		)			elow Surface (S8) (LRR K, L)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depicted Matrix Redox Dark Sur					urface (S9) (LRR K, L) rese Masses (F12) (LRR K, L, R)
4000000	Mucky Mineral (S1)	•	Depleted Dark S					oodplain Solls (F19) (MLRA 1498)
	Sleyed Matrix (S4)		Redox Depress	ions (F8)				ic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5) 1 Matrix (S6)							Material (F21) w Dark Surface (TF12)
	rface (S7) (LRR R, I	MLRA 1498	)					in in Remarks)
3 Indicators o	f hydrophylic vegeta	tion and we	liand hydrology mus	the nresi	ent unlec	e distruction	1 or problematic	
	Layer (if observed):		land nya dogy ne s	t De press	Jim, umes	o acutoc.	1 or productings.	
Туре:			<del></del>					\/
Depth (in	ches):						Hydric Soil Pres	ent? Yes No
Remarks								

WETLAND	DETERMINATION DATA FO	ORM - Northcentral and Northeast Region
Projecusia: Strum Lub	lt 🔾 Chy	County: Clark Co sempling Date: 9/26/1
pplicant/Owner; DPC	month Alley to Carlot All Tolling Till	State: 4 / Sampling Point: 1/0 0 )
vestigator(s): KB+AJ	Sec	tion, Township, Range: S15 TQGN R4W
andform (hillslope, terrace, etc.): <u></u>		efief (concave, convex, none): 1000 Slope (%): 102
ubregion (LRR or MLRA): LBR		19.7 Long: -90 51 38.48 Datum: NAO83
		The state of the s
		Five Sands NW classification; PFOIC
re climatic / hydrologic conditions on t		
re Vegetation Soil or	Hydrologysignificantly distr	urbed? Are "Normal Circumstances" present? Yes No
ve Vegetation $\underline{\mathcal{V}}$ , Soil $\underline{\mathcal{N}}$ , or	Hydrology naturally probler	matic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - A	ttach site map showing sa	impling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes NoX Yes NoX	Is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present?	Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative proced	lures here or in a separate report.)	
	· · · · · · · · · · · · · · · · · · ·	
Photo # 155		
- PROLOTE AND JOS		
YDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is	s required; check all that apply)	Surface Soli Cracks (96)
Surface Water (A1)	Water-Stained Leav	
High Water Table (A2)	Aquatic Fauna (B13	
Saturation (A3)	Mari Deposits (B15	THE PROPERTY OF THE PROPERTY O
Water Marks (B1)	Hydrogen Sulfide C	-
Sediment Deposits (B2)	manual C -	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduc	taran darah dari dari dari dari dari dari dari dari
Algai Mat or Crust (B4)		tion in Tifled Solts (C6) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface	* * *
incr Deposas (B5) inundation Visible on Aerial Imag		
Sparsely Vegetated Concave Su		X FAC-Noutral Test (D5)
Field Observations:	: acc (co)	
Surface Water Present? Yes	No / Depth (Inches):	
Water Table Present? Yes_		The second secon
Saturation Present? Yes	No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gail	ige, monitoring well, aerial photos, p	revious inspections), if available:
		en de la companya de Historia
Remarks:		www.landarana.com

	Absolute			Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
1, 1 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	e secundada de la composición del composición de la composición de la composición del composición de la composición del composición de la composición del	47.2.1581	production of the second	That Are OBL, FACW, or FAC:
3. 12-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3				Total Number of Dominant 2 (B)
4 19.197	-		1.5	■ Both the control of the contro
5.		***************************************	***************************************	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7.		= Total Cov		Total % Cover of Multiply by:  OBL species x1 =
	Management and the last			OBL species
1. Docum in Dinnericana	75	4	FACH	FAC species 10 x3= 30
1. 150 CAM T TA JAMES TO COUTA	li mai jagi		FITCH	FACU species
2.	-		***************************************	UPL species
4.	des and the			Column Totals: <u>85</u> (A) <u>330</u> (B)
	<del></del>		· <u></u> •	Prevalence Index = B/A = 3.8
5.				Hydrophytic Vegetation Indicators:
6,			***************************************	1 - Rapid Test for Hydrophytic Vegetation
7	-	- Tal-10-	***************************************	2 - Dominance Test is >50%
		≃ Total Co	ver	3 - Prevalence Index is ≤3.01
Herb Stratum (Plot size:)  1.				4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation (Explain)
			40.0.33	
3, 25 37 38 38 38 38 44 4.			10.4 TO 10.5	Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6.			12 / 2	1 1 2 2 3 4 5 4 5 5
				Tree – Woody plants 3 in, (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.		.1 .2 1		Sapting/shrub - Woody plants less than 3 in. DBH
9				and greater than or equal to 3.26 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
14.	-	= Total Co		height.
Woody Vine Stratum (Plot size:		10881 CO	*명  	
1. Smilax rotandifolica	17	Y	FAC	A STATE OF THE STA
2.			1 1 1000	
3				Library and Indian
3		_		Hydrophylic Vegetation
4.	-	_ Takai Ca		Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.1	_ = Total Co	wat	
monument, fundame business more or on a sebarate	with the life			•

Samcang Point: (()	$r \cap c \cap c$	
--------------------	-------------------	--

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth (inches)	Metrix Color (moist)	%	Redo Color (moist)	x Feature:	Type'	Loc*	Texture	Remarks			
. /	1048 413	98	104R316	2_		PL.	Silt loam	nomens			
0-6		18	INTRAG								
<u>5-17</u>		97	**************************************	<u> </u>		PL	Sandy loan				
17-19	104R 3/2	47	104R3/6	3		<u>PL</u>	Silt /ann				
					,						
					******************						
	months before the second of th	-	**************************************	-	***************************************	***************************************	***************************************				
**************************************		-		***************************************	-	***************************************	<del></del>				
	***************************************		***************************************		<u></u>		-				
***************************************			***************************************		***************************************	***************************************	***************************************				
		- Avecuation and the second									
***************************************		***************************************	***************************************		***************************************	***************************************		and the same of			
Time: 0-0	ananimatica PuP	leties C14	=Reduced Matrix, MS	Smillerker	Cand Co		21 continue DI -D-	ore Lining, M=Matrix.			
iype: C≃Cx Hydric Soll I		iction, KM	-reduced Marnx, ME	>=masKē¢	s send Gi	3813		ore ∟ming, m=matrix. blematic Hydric Solis³:			
Histosol			Polyvalue Belov	w Surface	(S8) (LRF	t R.		0) (LRR K, L, MLRA 1498)			
	olpedon (A2)		MLRA 1498)				- Annual Control of the Control of t	Redox (A15) (LRR K, L, R)			
Black Hi	stic (A3) in Sulfide (A4)		Thin Dark Surfa					eat or Feat (S3) (LRR K, L, R) S7) (LRR K, L, M)			
	Layers (A5)		Loamy Gleyed	-		,/		ow Surface (S6) (LRR K, L)			
	d Below Dark Surface	t (A11)	Depleted Matrix					ace (S9) (LRR K, L)			
-	ark Surface (A12) flucky Mineral (S1)		Redox Dark Su Depleted Dark 8				2000	se Masses (F12) (LRR K, L, R)			
	Stayed Matrix (S4)		Redox Depress	,	",		Predmont Floodplain Soils (F19) (MLRA 1498) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
-	ledox (S5)			, ,			Red Parent Ma	aterial (F21)			
	Matrix (86)						Very Shallow Dark Surface (TF12)				
Dank Su	rface (S7) (LRR R, N	1LRA 149	8)				Other (Explain	in Remarks)			
<sup>3</sup> Indicators of	f hydrophytic vegetal	ion and w	etland hydrology mus	t be presi	ent, unless	disturbed	or problematic.				
Restrictive	Layer (If observed):					******					
Туре:											
Depth (in	ches):						Hydric Soll Presen	1? Yes No_ <u>X</u>			
Remarks:											
						_					
								¥			

	FORM - Northcentral and Northeast Region
Project/Site: Styn Lubia CI	ty/County. Clark Co sampling Date: 9/26/1
Applicant/Owner: DPZ	State: UF Sampling Point: NOD2
Investigator(s): KB+AJ Se	ection, Township, Range: S15 T260 R4W
Landform (hillstope, terrace, etc.):Llood   ClausLocal	
Subregion (LRR or MLRA): LRL Lat: 44 44	20.24 Long: <u>-90 51 35.31</u> Datum: <u>NAD83</u>
soil Map Unit Name: Pelkie-WinterFeld lown	
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation, Soil or Hydrology significantly dis	
・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	
Are Vegetation Soil or Hydrology naturally proble	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Yes No Yes No Yes	Is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Structure 241 Photo 156-160	
HYDROLOGY	and the second s
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary indicators (minimum of one is required; check all that apply)	Surface Soli Cracks (86)
Surface Water (A1) Water-Stained Le	
High Water Table (A2) Aquatic Fauna (B	
Seturation (A3) Mari Deposits (B1	-
Water Marks (B1) Hydrogen Sulfide	The state of the s
The state of the s	heres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Redu	
Algal Mat or Crust (B4) Recent Iron Redu Iron Deposits (B5) Thin Muck Surfac	etion in Tilled Soils (C6) Geomorphic Position (D2)  e (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in	• • • • • • • • • • • • • • • • • • • •
Sparsely Vegetated Concave Surface (BB)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No No Depth (Inches):	
Surface Water Present?   Yes   No   Depth (Inches):   Water Table Present?   Yes   No   Depth (Inches):	***************************************
Saturation Present? Yes No X Depth (Inches): (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	
4 / 7 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1	
Pameric	
Notice Associated and the second and	
en.	

and the same of th		Dominant Indicator	Dominance Test worksheet:
ree Stratum (Plot size:)		Species? Status	Number of Dominant Species
			That Are OBL, FACW, or FAC: (A)
	ine gragine		Total Number of Dominant
A STATE OF THE STA			Species Across All Strata: (B)
			Percent of Dominant Species That Are OBL. FACW, or FAC: (A/6)
			That Are OBL, FACW, or FAC: (A/6)
		· Promote State of the state of	Prevalence Index worksheet:
		300 THE 11 THEFT I	Total % Cover of Multiply by:
The state of the s		= Total Cover	OBL species O x1 = O
Rubys alleahensis	71455	THE PROPERTY OF	LUCKA sheries v.c
	<u> 50</u>		FACUspecies 0 x3 = 0
Corylus americana		N FACY	FACU species 117 x4 = 468 UPL species 2 x5 = 25
A control of the cont			Column Totals:   119
ja egel om mor og som ere lædi edver ded i 💆 🚉 🔭 🗀			
			Prevalence Index = B/A = 4.1
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
*	37	= Total Cover	2 - Dominance Test is >50%
		= Total Cover	3 - Prevalence Index is ≤3.01
lerb Stratum (Plot size:)		N WEL	4 - Morphological Adaptations (Provide supporting
. Tripiasis purpurea	<del>-                                    </del>		data in Remarks or on a separate sheet)
Andrepogen gerardii	<u> 30</u>	-J EACY	Problematic Hydrophytic Vegetation (Explain)
. Poa pintusis	50	T. FACU	<sup>1</sup> Indicators of hydric soil and welland hydrology must
	-		be present, unless disturbed or problematic.
The second secon			Definitions of Vegetation Strata:
		284 <sup>2</sup>	1.0分から 300 1000 1000 1000 1000 1000 1000 1000
Company of the Company of the Company		- 1 1 N. DALLE	Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
	,	a Thyrida Million (gr. ),	Sapting/shrub - Woody plants less than 3 in. DBH
			and greater than or equal to 3.28 ft (1 m) tall.
0.	-		Herb - All herbaceous (non-woody) plants, regardless
1. 52.58 D W	***************************************	***************************************	of size, and woody plants less than 3.28 ft tall.
		* *************************************	Woody vines - All woody vines greater than 3.25 ft in
A	82	= Total Cover	height
	<u> </u>	= Total Cover	
Voody Vine Stratum (Plot size:)			sa superate a superate and the
Figure 1997			
i,			Hydrophylic
		, <u></u>	Vegetation Present? Yes No
	***************************************	_= Total Cover	
Remarks: (Include photo numbers here or on a seperate	e sheet.}		

Sampling Point: 11002

Profile Deer	rintion: (Describe)	o the den	th needed to docum	ent the l	ndicator	or confirm	the absence of in	dicators.)
Depth	Matrix	աստ ոգի		Features		J. VUINNI	, are unawive of its	MET WITHOUT THE ATT A
(inches)	Color (molst)	%	Color (moist)		Туре	Loc*	Texture	Remarks
6-7	10 4R4/3	100					Sandy loan	r.
7-20	104R4/3	100					Sundy Loan	
				***************************************	***************************************	***************************************		
			***************************************		***************************************			
					-			
			-	<del></del>			7.	
***************************************		-		***************************************		***************************************		
***************************************	**************************************	-		***************************************				
-								
***************************************		• *************************************						
***************************************				***************************************	******************		Andrewson and the second secon	
		-	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	-		***************************************		
MANAGEMENT AND THE OWNER WAS A PROPERTY OF	Character and advantage and white continue to the continue of	letion, RM	Reduced Matrix, MS	=Masked	Sand Gr	ains		Pore Lining, M=Matrix.
Hydric Soll i	Indicators:							roblematic Hydric Solis <sup>3</sup> :
Histosol	•		Polyvalue Below		(\$8) (LRI	₹R,		(A10) (LRR K, L, MLRA 1488)
	olpedon (A2) stic (A3)		MLRA 1498) Thin Dark Surfa		DD D M	DA 4409		e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky W					e (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			17		elow Surface (S8) (LRR K, L)
	d Below Dark Surface	ė (A11)	Depleted Matrix	(F3)				urface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Sur				***************************************	nese Masses (F12) (LRR K, L, R)
	Nucky Mineral (S1)		Depicted Dark S		7)			oodplain Soils (F19) (MLRA 1498)
	Sleyed Matrix (S4) tedox (S5)		Redox Depressi	ions (ro)				ic (TA6) (MLRA 144A, 145, 149B) Material (F21)
*	Matrix (S6)							w Dark Surface (TF12)
	rlace (S7) (LRR R, N	ALRA 1498	3)					in in Remarks)
٠								
			Hand hydrology mus	t be prese	int, unless	s disturbed	l or problematic.	
	Layer (If observed):							
Type:			- CALLES CONTROL CONTR				Hydric Soll Pres	ent? Yes No X
enconnection and a second and a	ches):						nyone son rres	
Remarks:								
1								
L								

### 114D

WETLAND DETERMINATION DATA F	ORM - Northcentral and Northeast Region
Project/Site: Strum Lublin cit	y/County: Clark Sampling Date: 9/26/1
Applicant/Owner: DPC	State: WI Sampling Point: 11401
Investigator(s): Kb + AU se	oction, Township, Range: SII TQGU R4W
Landform (hillslope, terrace, etc.): Ocok SSion Local	
Subregion (LRR or MLRA): LRR K Lat: 44 44 3	30.46 Long: -90 50 22.57 Datum: NAD 8
Soil Map Unit Name: Ludington-Fairchild Sa	MdS NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	*
Are Vegetation N. Soil N. or Hydrology N. significantly dis	
Are Vegetation N. Soil N. or Hydrology Nnaturally proble	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No  Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Welland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
And the state of t	
And the state of t	
0 1 1/11	
Photo # 164	5. 54
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soli Cracks (86)
Surface Water (A1) Water-Stained Lea	to the control of the
High Water Table (A2) Aquatic Fauna (B1	
✓ Saturation (A3)     Mari Deposits (B1)	* * *
Water Marks (B1) Hydrogen Sulfide	
	neres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Redu	ced Iron (C4) Stunted or Stressed Plants (D1)
	ction in Tifled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in I	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 X No Depth (inches):	17
Saturation Present? Yes X No Depth (inches):	
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos,	
Describe Recorded Data (stream gauge, monitoring well, aerial procos,	previous inspections), if available.
Remarks:	
·	

### VEGETATION - Use scientific names of plants.

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size:)		Species?		Dominance Test worksheet:
1.				Number of Dominant Species
	-	***************************************		That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3.	5-3-5-5			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:
e e transfer de la companya del companya del companya de la compan		= Total Cov	ner :	OBL species x1 =
	innimitanianian materialian			FACW species x 2 =
Sapting/Shrub Stratum (Plot size:)				FAC species x 3 =
1.	-	***************************************	<del></del>	
2.				FACU species x4 =
3.				UPL species x 5 ≠
			124	Column Totals: (A) (B)
4.				gyan da a a angan a gwan da a da a da a a a a a a a a
<b>Ç</b> ,	-		***************************************	Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7			***************************************	2 - Dominance Test is >50%
		= Total Co	ver	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)		. )		The state of the s
1. Calamagiostis Candensis	40	4	081	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2 Juneus tenais		N	FAC	Problematic Hydrophylic Vegetation* (Explain)
2 <u>Julyas Benas</u>				Flocioneae Hydrophysic regulation (copiair)
3 Solidian gianales	<u> </u>	<u> </u>	FACU	Indicators of hydric soil and welland hydrology must
4. Scripus Capellons	20	4	OBL	be present, unless disturbed or problematic.
The state of the s		187.5		
9 11 9 9				Definitions of Vegetation Strata:
6.	* ****	***************************************	***************************************	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7.		•	-	at breast height (DSH), regardless of height.
	***************************************	i <del>camananana</del>	***************************************	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.26 ft (1 m) tall.
9				and greater trials or equal to 5.20 it (1 in) tails
10.			***************************************	Herb - All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
	<del></del>			Woody vines - All woody vines greater than 3.28 ft in
12.	$-\alpha$	***************************************		height.
	70	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1,				
		***************************************		
A			-	
3			-	Hydrophytic
4,	at beidigwitten			Vegetation   Present?   Yes   No
		= Total Co	war	Present? Yes No
Remarks: (Include photo numbers here or on a separate	chast 1	_ 100100	TVI	
memarks: (include photo numbers here or on a separate	HCCL)			

Sampling Point: (140)

eoth.	ription: (Describe Matrix			x Feature:					
ches)	Color (moist)	- %	Color (moist)	%_		Loc*	Texture		merks
1-4	104R-/1	100			******************		SrIt low	m 5/1.	Alla mucky
-20	2.54 6/2	160-95	1042 4/6	0-5		<u>Br</u>	8000	decreasing	ng rédox wide
			***************************************						
					***************************************				
	Martin Britania - Martin - Mar		3),	- Samuelantinonemok	·	diameter complete	Additional and the street of t	anin kial-sahiran daga mahas gerilan kilika dan ari internet	reasonary and the solid place and the standard place the second and add a find by all standards.
			<del></del>		***************************************				
		***************************************		-	***************************************				
of Commonwealth Commonwealth	oncentration, D=Dep	oletion, RM	=Reduced Matrix, MS	=Masked	Sand Gr	ins.		PL=Pore Lining or Problematic	
Histic Ep Black Hi Hydroge Stratified Depleted Thick Da Sandy N Sandy G Sandy R Stripped	Histosoi (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Leyers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F6)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 1498)				.RA 1498)	2 cm Muck (A10) (LRR K, L, MLRA 1498) Coast Prairie Redox (A15) (LRR K, L, R) 5 cm 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, R) Piedmont Floodplain Soils (F19) (MLRA 1498 Mesic Spodic (TA6) (MLRA 144A, 145, 1498 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Cther (Explain in Remarks)			
	f hydrophytic vegets Layer (if observed)		etland hydrology mus	t be prese	ent, unles	disturbed	or problematic.		
Type: Depth (in	ches):						Hydric Soil I	Presant? Yes	<u> </u>

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region
Project/Site: Strum Labin City/County. Clark (o sempling Date: 9/26/1
Applicant/Owner: DPC State: UT Sampling Point: 11402
Investigator(s): KB+AJ Section, Township, Range: SII TAGN RHW
Landform (hillslope, terrace, etc.): \\ \int \landform \( \text{Local relief (concave, convex, none)} \text{: \textsupering \text{None} \\ \text{Slope (%): \frac{2}{2}} \end{area}
Subregion (LRR or MLRA): LRR K Lat: 44 44 30-26 Long: 90 50 21.72 Datum: NA 083
Soil Map Unit Name: Ludinaton-Fair child Sands NWI classification:
Are climatic / hydrologic conditions, on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation
Are Vegetation N, Soit N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X Is the Sampled Area
Hydric Soil Present? Yes No Within a Wetland? Yes No
Wetland Hydrology Present? Yes No If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)
Structure 258
Photo # 165, 166
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary indicators (minimum of one is required; check all that apply)  Surface Soli 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) Mari 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) Seturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced iron (C4) Stunted or Stressed Plants (D1)
Algai Mat or Crust (B4) Recent Iron Reduction in Titled Solls (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 V Depth (Inches):
Water Table Present? Yes No X Depth (Inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks;

VEGETATION - Use scientific names of plants.				13. 4		ALL HELG	Sampling	Point: 11	402
<del> </del>	 -	- 24	 	4 45	***************************************		 		

Yree Stratum (Plot size:)	Absolute % Cover		Indicator	Dominance Test worksheet:
1.				Number of Dominant Species That Are OBL, FACW, or FAC; (A)
	1 1 1 1 1 1 1	1,500		the same provided the same pro
3. W 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				Total Number of Dominant Species Across All Strata:
	V. 20		14 11	Percent of Dominant Species
.5	. emmercanium	Management of the second of th		That Are OBL, FACW, or FAC: 50 (A/B)
			for each or pr	
7				Prevalence Index worksheet: Total % Cover of Multiply by:
		34-33443		OBL species 3 x1 = 3
Sapling/Shrub Stratum (Plot size:)	RE-IN-PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TO PERSON NAM			FACW species ZO x2= 40
			randrin da ing	FAC species D x3 = O
1				FACU species 67. x4= 26 %
3.				UPL species $\bigcirc$ $x5 = \bigcirc$ Column Totals: $90$ (A) $311$ (B)
4	7 7			for the large of the first of the second of
5.		£		Prevalence Index = B/A = 3.4
6				Hydrophytic Vegetation Indicators:
7	. //	Academicional	-	1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	wer	2 - Dominance Test is >50%
Herb Stratum (Plot size:)		- 4 4		3 - Prevalence Index is ≤3.01
1 Rubus Wisoidus	20	Y	JACW.	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
2 Calamaciostis conditescis	3	N	OBL	Problematic Hydrophytic Vegetation (Explain)
3 Poa Dintensis	50	4	FACU	grava da das el estración de la la planta de la
4. Solidays allissima	10	N	FALL	<sup>1</sup> Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
5 Soldano Ganders	***************************************	N	FACU	Definitions of Vegetation Strata:
6	,	2	r i sagera de La sagera	
74 Sign distribution of the second		N 27 N	34 - 25 - 3	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
·夏···································	. 2000	Artista V	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
9.				Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10. 37 3				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
	90	= Total Co	wer	height.
Woody Vine Stratum (Plot size:)				
1,				
2.				
3.				Hydrophylic
4.				Vegetation
	Victoriantination	= Total Co	wer	Present? Yes No X
Remarks: (Include photo numbers here or on a separate :	sheet.)		**************************************	

Sampling Point: 11402 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth. Redox Features Color (moist) Color (moist) Type Loc\* Texture (inches) 104R3/2 104R5/2 Sand 100 a Chu <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solls<sup>3</sup>: Hydric Soll Indicators: \_\_\_ 2 cm Muck (A10) (LRR K, L, MLRA 1498) Histosol (A1) Polyvalue Below Surface (S8) (LRR R. Coast Prairie Redex (A16) (LRR K, L, R) Histic Epipedon (A2) MLRA 1498) Thin Dark Surface (S9) (LRR R, MLRA 1498) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) \_\_\_ Dark Surface (S7) (LRR K, L, M) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) \_ Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR K, L, R) Redox Dark Surface (F6) Thick Dark Surface (A12) Fledmont Floodplain Soils (F19) (MLRA 1498) Sandy Mucky Mineral (S1) Depicted Dark Surface (F7) Mesic Specie (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Red Parent Material (F21) Sandy Redox (S5) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1498) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Hydric Soil Present? Yes Depth (inches): Remarks:



DIRECTION	FEATURE ID	114D	DATE
East	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/26/2012

WETLAND DETERMINATION DATA FO	RM - Northcentral and Northeast Region
Project/site: Strum Lublin City/C	ounty: Class Co sampling Date: $\frac{9/26/12}{}$
Applicant/Owner: DPC	State: WI Sampling Point: 1/601
Investigator(s): KB+A) Section	on, Township, Range: SII TAGN R4W
Landform (hillslope, terrace, etc.): <u>OとOにSyan</u> Local reli	ef (concave, convex, none): /en<-us Stope (%): /
Subregion (LRR or MLRA): LRQ V Lat: 44 44 30	
soil Map Unit Name: Ludington-Fairchild sau	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Y	
Are Vegetation N. Soil N or Hydrology N significantly disturb	
Are Vegetation V Soil V or Hydrology N naturally problems	
SUMMARY OF FINDINGS - Attach site map showing sam	pling 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
Weltand Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
Structure # 261 Photo # 167	
Photo # 167	
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 Leave	s (89) Orainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Mart Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosphen	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Fresence of Reduced	i iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reductio	in In Titled Soits (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C	, ,
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren	The state of the s
Sparsely Vegetated Concave Surface (B8)	FAC-Noutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Y Depth (Inches):	
water Table Present? Tes K No Depth (inches): U	
Saturation Present? Yes X No Depth (inches): O	Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	

			·	That Are OBL, FACW, or FAC:(A)
		1 (1)	. <u> </u>	Total Number of Dominant Species Across All Strata: (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	:			Prevalence Index worksheet: Total % Cover of Multiply by:
		= Total Cov	ver	OBL species x1 =
(Plot size:)			ASE SAME	FACW species x 2 =
Prubus Idores			FACU	FAC species x3 =
	1.79 A.		- 4	FACU species x 4 =
	• ;			UPL species x 5 =
	• *************************************			Column Totals: (A) (B)
		,		Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
	in spiritipalestericiteitessessi			1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
		_ = Total Cov	ver i	3 - Prevalence Index is ≤3.0°
to Stratum (Plot size: ) Calamagrastis (anadonsis	5	<u> </u>	OBL	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Scirpus caperinas	30	4_	OBL	Problematic Hydrophytic Vegetation (Explain)
Glucera Manadensis	05	4	OBL	
Symphyotichum lanceolatum		4	FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
ot in physiqueem last estadon.	a material	,	, <u>Jank 37 ann</u> ,	
	<u> </u>			Definitions of Vegetation Strata:
		X SECONDARY CONTRACTOR CONTRACTOR	r	Tree - Woody plants 3 in. (7,6 cm) or more in diameter at breast height (DBH), regardless of height.
	-	•		Sapiling/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.
		_ = Total Co		Woody wines - All woody vines greater than 3.26 ft in height.
oody Vine Stratum (Plot size:)		, I Olon	96) 1 1 65.	8 - 11 - 1 5 - 1 - 1 - 1
			-	
				Hydrophytic
				Vegetation
		_ = Total Co	wer	Present? Yes X No
marks: (Include photo numbers here or on a separate	sheet.)	***************************************		

Sampling Point:	l	16	0	SECTION
-----------------	---	----	---	---------

Profile Descr	ription: (Describe t	o the depti	n needed to docum	nent the ir	ndicator	or confirm	the absence of Ind	licators.)
Depth	Matrix		Redo	x Features				
(inches)	Color (molet)	<u> </u>	Color (moist)	<u>**</u>	Type'	<u>Loc</u>	<u>Texture</u>	Remarks
0-3	7.59K4/3	100				***************************************	Silty clay 1	<u> </u>
3-8	10422/1	98	7.54 3/4	2		PL	Siltlean	slightly Mucky
8-20	2.54 5/2	97	W4R4/6	3	_	QL_	Sand	
					***************************************			
					-	***************************************		
	-				***********	***************************************		
	***************************************			* *************************************	-	***************************************		
		***************************************			***************************************			
			CONTROL CONTRO	* *************************************	-	***************************************		
				• • • • • • • • • • • • • • • • • • •		***************************************		
***************************************	***************************************	***************************************		-		***************************************	<u> </u>	
		***************************************	·			***************************************		
¹Type: C=Co	oncentration, D=Dept	etion, RM=	Reduced Matrix M	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: PL=	Pore Lining, M=Matrix.
Hydric Soil I						<u> </u>		roblematic Hydric Solis <sup>3</sup> :
Histosol	(A1)	_	Polyvalue Belov	w Surface	(\$8) (LRI	RR,		A10) (LRR K, L, MLRA 1498)
	ipedon (A2)		MLRA 1498					Redox (A16) (LRR K, L, R)
1	stic (A3) n Sulfide (A4)	-	Thin Dark Surfe Loamy Mucky N				. —	Peat or Feat (S3) (LRR K, L, R) (S7) (LRR K, L, M)
	Leyers (A5)		X Loamy Gleyed			·1 ·)		Now Surface (S8) (LRR K, L)
Depleted	Below Dark Surface	(A11)	Depleted Matrix					urface (S9) (LRR K, L)
	rk Surface (A12)	-	Redox Dark Su				announ.	ese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1) Jeyed Malrix (S4)	-	Depleted Dark   Redox Depress		0		_	oodplain Scils (F19) (MLRA 1498) c (TA6) (MLRA 144A, 145, 1498)
-	edox (S5)	-	Nedax Depress	nons (1 o)				Material (F21)
-	Matrix (86)						Very Shallow	v Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 1498	)			•	Other (Expla	in in Remarks)
Indicators of	hydrophytic vegetati	ion and wal	land hydrology my	et ha nrace	nt unles	s distriction	l oc otobiematic	
	ayer (if observed):		ienu nytakteyy mai:	a ue prese	in, uinca	3 1531111131	To productions.	
Тура:								4
	:hes):						Hydric Soil Press	ent? Yes X No
Remarks:							1	
110111211131								
1								

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region
Project/Site: Strum Lubin city/county: Clark Co sempling Date: 9/26/
Applicant/Owner: DPC State: WF Sampling Point: 1/6 D2
Investigator(s): KB+AJ Section, Township, Range: SII TQGN R4W
Landform (hillslope, terrace, etc.): \( \sigma \) \( \sig
Subregion (LRR or MLRA): LBA - Lat: 44 44 30.26 Long: -95 50 10.26 Datum: NAD 83
Soil Map Unit Name: Ludington - Fairchild Sands 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 N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No X Is the Sampled Area Within a Wetland? Yes No X
Hydric Scil Present?
Wetland Hydrology Present? Yes No If yes, optional Wetland Site ID: Remarks: (Explain alternative procedures here or in a separate report.)
Remarks: (Explain aliemative procedures nere of in a separate report.)
all de la company de la la la destrucción de la company de la company de la company de la company de la compan La company de la company d
and the state of t
kan kan di kanan di dianggaran di dianggaran di kanan di Kanan di kanan di ka
Photo # 168, 169
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) 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 Titled Solls (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Conceive Surface (B8) FAC-Neutral Test (D5)
Sparsely Vegetated Conceive Surface (B8) FAC-Neutral Test (D5)  Field Observations:
Surface Water Present? Yes No Depth (Inches):  Water Table Present? Yes Depth (Inches):
Saturation Present? Yes No Depth (Inches): Wetland Hydrology Present? Yes No
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
e de Millon de la companya della companya della companya de la companya della com
Remarks;
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Appropriate providing the	MM 48	11	scientific		بقيمت المساهية	-
/ - ( - ) - : 2	. I IL JOS	- 20	SCHEOLIG	TG- TT-642	THE CHARLES	ж

/EGETATION - Use scientific names of plants.		Dominani		T T T T T T T T T T T T T T T T T T T
Tree Stratum (Plot size:)				Dominance Test worksheet:
1, 44 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				Number of Dominant Species / That Are OBL, FACW, or FAC: (A)
2. <u> </u>	tagase in al	He well		Total Number of Dominant //
3. Comments of the comments of				Species Across All Strata: (B)
4	-	5 1		Percent of Dominant Species
5. 2.6926mea (1997)			• *****************************	That Are OBL, FACW, or FAC: 25 (A/B)
				and the digital control of the contr
				Prevalence Index worksheet:
7. <u>la la Caracter de la compaña, recessivada de la compa</u>				Total % Cover of Multiply by:
	***************************************	= Total Co	ver	OBL species X1 =
Sapling/Strub Stratum (Plot size: )	1407_314	1931		LVAIA 300003 v.e.a
1. Comptunia Perroutina	40	<u> </u>	NBT	FAC species x 3 =
2.		# 1	1, 2, 4, 4, 4	
3,				UPL species $\frac{40}{126}$ x5 = $\frac{200}{500}$ (B)
	7,24			Column Totals: 126 (A) 304 (B)
	-			Prevalence Index = B/A =
5.				
6,	-	***************************************	* ***********	Hydrophytic Vegetation Indicators:
7.	/		-	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
	40	= Total Co	ver	2 - Dominance Fest is >50%  3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)		//		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Rubus hisoplus	<u> 20</u>	1	FACW	data in Remarks or on a separate sheet)
2 Solidua o Canadensis	15	Ŋ	FACU	Problematic Hydrophytic Vegetation (Explain)
3. Solidago altissima	30	Y	FACU	ALE CONTRACTOR TO THE PROPERTY OF THE PROPERTY
4 Pour Disterses	20	Ų	FACU	Indicators of hydric soil and welland hydrology must be present, unless disjurbed or problematic.
5. Holcus lagatus		<u> </u>	FACU	be present, diness disturbed of problematic.
			· TWA	Definitions of Vegetation Strata:
6.			- <del> </del>	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
A service of the serv		-		at breast height (DBH), regardless of height.
8.	-			Sapling/shrub - Woody plants less than 3 in. DBH
<b>9</b> ,				and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb - All herbaceous (non-woody) plants, regardless
11. <u>1997 - E. Mathille</u>				of size, and woody plants less than 3.28 ft tall.
12.	***************************************			Woody vines - All woody vines greater than 3.28 ft in
	810	= Total Co		height, sag
	<u>-00</u>	, ≃ Total Cc	wei	
Woody Vine Stratum (Plot size:)				The state of the
<u>t.</u>			* *************************************	
2.	<u> </u>		-	
3,				Hydrophytic
4.	-	s and the second	-	Vegetation Present? Yes No
	W-9 - 11 11 12 12 1	= Total Co	wer	Liesalki.
Remarks: (Include photo numbers here or on a separate	sheet.)		<del></del>	<u> </u>
· · · · · · · · · · · · · · · · · · ·	•			

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix Color (moist)	- %	Redox Color (moist)	Feature:	Type	Loc	Texture	Remarks
D-4	104R 3/2	100					/Dam	11511127117
4-11	104R 4/4	100		-	-		Sunda loan	
11-18	104R 41	100		*************	***************************************	***************************************	3	
	1042-4/2	100					, ~	<u> </u>
18-20	1014 72			-	***************************************	***************************************	loanny san	J
				***************************************				
***************************************				***************************************	***************************************			
				***************************************		***************************************	<u>introduction</u>	<u></u>
***************************************								
						-		
***************************************	***************************************	. ************************************	***************************************	***************************************	<del></del>		Management of the second of th	
¹Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	Sand Gr	ains		Pore Lining, M=Matrix.
Hydric Soll	Indicators:						Indicators for P	roblematic Hydric Solis <sup>3</sup> :
Histosol	l (A1) pipedon (A2)		Polyvalue Belov MLRA 1498)		(S8) (LRI	₹R,		(A10) (LRR K, L, MLRA 1498) e Redox (A16) (LRR K, L, R)
	istic (A3)		Thin Dark Surfa		.RR R, MI	LRA 149B	332,000	Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Losmy Mucky M			, L)		e (\$7) (LRR K, L, M)
	d Layers (A5) d Below Dark Surfac	e (A11)	Loamy Gleyed I Depleted Matrix		)			elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L)
Thick D	ark Surface (A12)		Redox Dark Sur	riace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
	Mucky Mineral (\$1) Gleyed Matrix (\$4)		Depleted Dark 8 Redox Depress	-	7)			loodplain Solis (F19) (MLRA 1498) ic (TA6) (MLRA 144A, 145, 1498)
	Redox (S5)		Medax Depress	(a) (1 O)				Material (F21)
	i Matrix (86)							w Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R, f	NLRA 1498	3)				Other (Expla	ain in Remarks)
	s hydrophytic vegeta		lland hydrology mus	t be prese	ent, unles	s disturbed	f or problematic.	
1	Layer (if observed):							
							Hudde Sall Dree	ent? Yes No X
Remarks:	ches):						Tryone con tres	
rteniana.								
-								



DIRECTION	FEATURE ID	116D	DATE
East	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/26/2012

WET	LAND DETE	RMINATION DATA F	ORM - Northcentra	l and Northeast Region	1
Project/Site: 31 lune	Lublin	CH <sub>3</sub>	vocaunty Clark	Sampling	Date: 7/26//
Applicant/Owner: DPC	fortes (1969) de l			, ,	ng Point 11801
Investigator(s): KB +/	4.)	Se	tion, Township, Renge:		, ayaanyaayaayaa
Landform (hillslope, terrace, et	c): Depre			one): Colcava	Signe (%):
Subregion (LRR or MLRA):	Charles and American	## 100 English 5		70 49 48.42	
Soll Map Unit Name: LUCL			· · · · · · · · · · · · · · · · · · ·	NWI classification:	J4.0
Are climatic / hydrologic condit			Yes X No		oran e la forma de la companya del companya de la companya del companya de la companya del la companya de la co
Are Vegetation, Soil[					<b> x</b> :::
Are Vegetation Soil				al Circumstances' present? Y explain any answers in Rema	
SUMWARY OF FINDING	}S – Attach	site map showing sa	mpling point locati	ons, transects, import	ant features, etc.
Hydrophytic Vegetation Preson Hydric Scil Present?	ont? Yes		Is the Sampled Area Within a Wetland?	Yes <u> </u>	
Welland Hydrology Present?	Yes		If yes, optional Wetlan	d Site ID:	
Remarks: (Explain alternative	e procedures her	re or in a separate report.)	raserr 200 prider - www.neerr		
			The grade free grade to see a contract that the contract of	the transfer of the contract o	na kanala ara ara ara ara ara ara ara ara ara
en de la companya de La companya de la co		STATES TO STATES TO STATE OF THE STATES OF T		and the second of the second of the second	
· · · · · · · · · · · · · · · · · · ·					
DLJ # 15	A KAMPATANA A				
17010 H 1/1		Standing Light House			. 1
HYDROLOGY				and the second s	reta bizzak
Wetland Hydrology Indicato	)rs:			Secondary Indicators (minim	num of two required)
Primary Indicators (minimum	of one is require	d; check all that apply)		Surface Soil Cracks (26	
Surface Water (A1)		Water-Steined Lear	ves (B9)	Drainage Patterns (B10	* *** * **** * * * * * * * * * * * * * *
High Water Table (A2)		Aquatic Fauna (B1:	3)	Moss Trim Lines (B16)	Transfer garantee e makadan e e
<u> </u>		Meri Deposits (815	*	Dry-Season Water Tabl	e (C2)
Water Marks (B1)	essente tell for ker	Hydrogen Sulfide C	1 1 1 1 E	Crayfish Burrows (C8)	e e e entresponent e e
Sediment Deposits (B2)		7.7773	eres on Living Roots (C3)		
Drift Deposits (B3)	s 194 (1946)	Presence of Reduc		Stunted or Stressed Pla	participation of the second
Algal Mat or Crust (B4)		<del></del>	tion in Titled Soils (C6)	Geomorphic Position (D	2)
Iron Deposits (B5) Inundation Visible on Aer	dal Imposer /07\	Thin Muck Surface Other (Explain in R	7 *	Shallow Aquitard (D3)	
Spersely Vegetated Cond			emarks)	Microtopographic Relief FAC-Neutral Test (D5)	(U4)
Field Observations:	, Canao (C.	<b>4</b>		PACSIVEDURI (CSC(DC)	
Surface Water Present?	Yes No	o X Depth (Inches):		y agreement to the year of the green of the	and the second of the second o
Water Table Present?	2 2 c same	o × Depth (Inches):	**************************************		or a see of the
Saturation Present?	Yes X No	Depth (inches):	5 Wetland	Hydrology Present? Yes	X No
(includes capillary fringe)			·		2
Describe Recorded Data (stre	iam gauge, moni	doring well, aerial photos, p	revious inspections), if av	ailable:	
					a to the second
Remarks:					
		Are V			2
er en			and the first of the second se	a water to a second of the set of	
					g with this will
_					
					and the state of t
					,

	Absolute			Dominance Test worksheet:
ree Stratum (Plot size:)		Species?		Number of Dominant Species
				That Are OBL, FACW, or FAC:(A)
				Total Number of Dominant Species Agross All Strate: (B)
	·	**************************************	mamanmana ;	A MUNICIPAL CONTROL - SERVICE CARROLL CONTROL
		e.	-	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B
				Prevalence Index worksheet:
**************************************	, , , , , , , , , , , , , , , , , , ,			
apting/Shrub Stratum (Plot size:)		, , , , , , , , , , , , , , , , , , , ,		FACW species x 2 =
	gerar et an	i e	. 4	FAC species x3 =
	TE V9707			FACU species x4 =
Appendix and the second of the		4 1 1		UPL species x5=
			***************************************	Column Totals: (A) (B)
				Prevalence index = B/A =
			***************************************	Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	/er	2 - Dominance Test is >50%
ierb Stratum (Plot size:)				3 - Prevalence Index is ≤3.01
Glycette Canadentes	85	Y	ORL	4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
2 Sciences CHORELANS	5		OBL	Problematic Hydrophytic Vegetation¹ (Explain)
Symphyotrichum lanceolatu		N	FACU	
12/49/20 12:20:30 12:20:30 13:20:20:20		Gertin	erese este	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		· · · · · · · · · · · · · · · · · · ·		
The second of th		•		Definitions of Vegetation Strata
	man descriptions	404 Fr 61	NACOTO DE LA CONTRACTO IO DE	Tree – Woody plants 3 in. (7.6 cm) or more in diametr at breast height (DBH), regardless of height.
	3 199 M 1,21 1	The artyrine with	g - 25 - 525 S.	
		***************************************		Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
0	, <u>, , , , , , , , , , , , , , , , , , </u>			Herb - All herbaceous (non-woody) plants, regardes
1.				of size, and woody plants less than 3.28 ft tall.
2.		•• •••••••••••••••••••••••••••••••••••		Woody vines - All woody vines greater than 3.28 ft is
	95	= Total Co	ver	height.
Woody Vine Stratum (Flot size:)	Secrit Communication of the second		Fare a.	
	Section 1	$\mathbb{N}^{n-1}(\mathbf{s}) + \mathbb{R}^{n}$		
2	***************************************	-		
3		<del>16. 2011-1011-1011-1011</del>		Hydrophylic
A				Vegetalion
7.		= Total Co	ver	Present? Yes No
Remarks: (Include photo numbers here or on a separal	le sheet.)			
	·			

Sampling Point: 11801

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix	···	Redo	x Feature	5	inna-seria			
(inches)	Color (molst) 10 412 3/2	%	Color (moist)		Type	Loc	Texture Remarks		
	10912-72	100	- 1		***************************************	***************************************	Silty chy luan		
3-5	1044 4/3	98	104R 4/4	<u> </u>		<u>PL</u>	Said		
5-10	1648311	98	104R 316	2_	<u></u>	19	loung sand		
10-18	2.54 6/2	100	***************************************		***************************************	**************************************	<u>Sand</u>		
		* *************************************			***************************************				
	:	* · <del>**********************************</del>			•	***************************************	***************************************		
difficient de la constitució d	<del></del>	·	***************************************	• •	-	***************************************			
	-			-	***************************************	***************************************			
***************************************				-	***************************************	***************************************			
***************************************	•	* ************************************	***************************************	***************************************	-	***************************************	***************************************		
	***************************************	. <del> </del>	<del></del>	·	***************************************	*************	***************************************		
			-						
¹Type: C=C Hydric Soll I		letion, RM	=Reduced Matrix, MS	=Maskec	Sand Gra	ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>2</sup> :		
	olpedon (A2)		MLRA 1498)				Coast Prairie Redox (A15) (LRR K, L, R)		
	stic (A3) m Sulfide (A4)		Thin Dark Surfa						
	d Layers (A5)		Loamy Mucky & Loamy Gleyed I			, L)	Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)		
	d Below Dark Surfac	e (A11)	Depleted Matrix		•		Thin Dark Surface (S9) (LRR K, L)		
Thick Da	rk Surface (A12)		Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)		
	fucky Mineral (S1)		Depicted Dark 8		7)		Fledmont Floodplein Soils (F19) (MLRA 149B)		
	ileyed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spockc (TAG) (MLRA 144A, 145, 1498)		
- Andrews 12	tedox (S5) Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)		
	rface (S7) (LRR R, M	ALRA 1491	3)				Other (Explain in Remarks)		
3 Indicators of	I hydrophytic vegetal	ion and w	alland hydrology mus	t be prese	ent, unless	disturbed	or problematic.		
	Layer (If observed):			······································	······	***************************************			
Туре:									
Depth (inc	ches):		<del>necessation de la contraction /del>		***************************************	······································	Hydric Soil Present? Yes No		
Remarks:									
							•		
émbrana in managan man					***************************************				

WETI	LAND DETERMIN	ATION DATA FO	RM - Northcentral	and Northeast Reg	ion
Project/Site: Strum	Lublin	City/	county. <u>Clark</u>	Co Sampli	ing Date: <u>9/24//</u>
Applicant/Owner: 000	"我说我说,我一样说。"		SCI S Appressor Militaria (1981)		pling Point 118 102
Investigator(s): CD+A		Secti	on, Township, Range:	SII TRGO	
Landform (hillslope, terrace, etc	in hills-top		lief (concave, convex, no		Slope (%): 1-2
Subregion (LRR or MLRA):			. 51 Long: 9		Datum: NAO83
Soil Map Unit Name: Ludi			——————————————————————————————————————	NVI classification:	
Are climatic / hydrologic conditi		T. B	res V No	(If no, explain in Remarks	3
Are Vegetation N Soil 1				i Circumstances* present?	
Are Vegetation W_, Soil				explain any answers in Re	
SUMMARY OF FINDING	S – Attach site n	nap showing sar	npling point location	ons, transects, impo	ortant features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present?	nk? Yes	NoX	is the Sampled Area within a Wetland?	YesNo	, <u>X</u>
Welland Hyrkology Present?	Yes	No	If yes, optional Wetland	d Site ID:	
Remarks: (Explain alternative	procedures here or in	a separate report.)		2	
				and several and the several se	and a second second second second second
A STATE OF THE STA					
and the second					
Phot 171	172				
HYDROLOGY	iga e nogena.	5			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Wetland Hydrology Indicato	rs:	<del></del>		Secondary Indicators (m	inimum of two required)
Primary Indicators (minimum	of one is required; chec	k all that apply		Surface Soil Cracks	(26)
Surface Water (A1)		Water-Steined Leave	es (B9)	Drainage Patterns (E	310)
High Water Table (A2)		Aquatic Fauna (B13)	1	Moss Trim Lines (B1	6)
Saturation (A3)	enter	Marl Deposits (B15)		Dry-Scason Water T	able (C2)
Water Marks (B1)	an in the second	Hydrogen Sulfide Od		Crayfish Burrows (C	
Sediment Deposits (B2)			res on Living Roots (C3)		Aerial Imagery (C9)
Drift Deposits (B3)	145.1 (1.1 (1.1 (1.1 (1.1 (1.1 (1.1 (1.1 (	Presence of Reduce	And the second of the second of the second of	Stunted or Stressed	
Algai Mat or Crust (B4) Iron Deposits (B5)	<b>يستندو:</b> ماهم د داد د د د د د و د و د و د و د د د د د	Thin Muck Surface (	on in Tilled Soils (C6)	Geomorphic Position Shallow Aquitard (D:	
Inundation Visible on Aeri	ial Imagery (B7)	Other (Explain in Re	*	Microtopographic Re	*
Sparsely Vegetated Cond		, ————————————————————————————————————		FAC-Neutral Test (D	
Field Observations:					
Surface Water Present?	Yes No X	Depth (inches):	windshammaterian in the state of the state o		
Water Table Present?	Yes No	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes No_X	_ Depth (inches):	Wetland	Hydrology Present? Ye	s No. <u>X</u>
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, pri	evious inspections), if av	ailable:	
				and the second s	
Remarks:	1. ASL				
	sales services services		eg or a large of the large		
			. *		•

OF WILLIAM - Ose scientific harries of plants				
ee Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
		· · · · · · · · · · · · · · · · · · ·		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant 3 (B)
	<del>Seeds - Reseasement Constanting</del>		<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	Percent of Dominant Species
				That Are OBL, FACW, or FAC: 33 (A/B)
	1 <u></u>		ega ervis, id.	Prevalence Index worksheet:
		#12 mail	**************************************	Total % Cover of Multiply by:
。 "我们也就是一次搬了一点的话,这样就是一定就是一个好话,"	***************************************	= Total Cov	er,	OBL species
pling/Shrub Stratum (Plot size:)		1	. Di	FACW species 0 x2 = 20 FAC species 0 x3 = 0
Comptonia peregina	and the second of the second	<u> </u>	MFL	FAC species
		<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		UPL species <u>18</u> x5 = <u>90</u>
			· · · · · · · · · · · · · · · · · · ·	Column Totals: <u>54</u> (A) <u>169</u> (B)
				Prevalence Index = B/A = 3.1
				Hydrophytic Vegetation Indicators:
			***************************************	1 - Rapid Test for Hydrophytic Vegetation
and the second s		≖ Total Cov	er 	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0°
Potentille Cin Olax	10	Virginia	FACU.	4 - Morphological Adaptations (Provide supporting
Muhlenborgia alomerata	mer. Interpretation		DBL	deta in Remerks or on a separate sheet)  Problematic Hydrophytic Vegetation (Exotain)
	15	4.	WPL	- Adams Josephy Copical Copica
Carex Craptolepis	5	<del>\lambda</del>	OBL	Indicators of hydric soil and wellend hydrology must be present, unless disturbed or problematic.
Erigeron annuus	1	N	FACU	- 10 m m m m m m m m m m m m m m m m m m
	10	***************************************	FACW	Definitions of Vegetation Strata:
Sciences cuperinus	3	N	OBL.	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Glyceria randonis	5	<u>N</u>	OBL	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.
*				
•	51	= Total Cov	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Woody vines - All woody vines greater than 3.28 ft in height.
oody Vine Stratum (Flot size:)	***	- Total Covi	al.	a marina esta esta esta esta esta esta esta est
		align to the		
		-		
				Hydrophylic
				Vegetation
		· ************************************	waterway water to the same of	!Present? Yes No △
		≈ Total Cov	ÞΓ	Present? Yes No X

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Profile Desc	ription: (Describe)	o the dep	th needed to docun	nent the i	ndicator	or confirm	n the absence		aug rone. L	
Depth	Matrix		Redo	x Feature:			od as was now many ded to day as	w		
(inches)	Color (moist)		Color (moist)		Type	_Loc*	Texture	,	Remerks	······································
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7-13	10426/6	100					100 mg 5.	a~J		
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	,									
¹Type: C=Cc	oncentration, D≃Dep	letion, RM	=Reduced Matrix, MS	=Masked	Send Gr	ains.	2Location	: PL=Pore Linir	ng, M≕Matrix	
Hydric Soil I	Hydric Soil Indicators: Indicators for Problematic Hydric Soils <sup>2</sup> :									
Histosol	**		Polyvalue Belov	v Surface	(S8) (LRI	R,		luck (A10) (LRI		
	ipedon (A2)		MLRA 1498)					Prairie Redex (/		
Black His			Thin Dark Surfa					lucky Peat or P		R K, L, R)
	n Sulfide (A4) Layers (A5)		Loamy Mucky M Loamy Gleyed I			, i=)		kurfece (S7) (LR lue Below Surfe	7 7 7	ŘK I)
	Below Dark Surface	6 (A11)	Depleted Matrix		,			ark Surface (SS	20 10 10 11	
Thick Da	rk Surface (A12)		Redox Dark Sur	rface (F6)				anganese Mass		
	ucky Mineral (S1)		Depleted Dark 8		7)		_	ont Floodplain S		
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (N	-	145, 149B)
	edox (S5) Matrix (S6)						· ·	arent Material (f hallow Dark Su		
_ :	face (S7) (LRR R, M	ILRA 1491	3)					(Explain in Rem		
,,								•		
			sland hydrology mus	t be prese	nt, unless	disturbed	or problematic	I.,		
	.ayer (If observed):									
Туре:										$\vee$
Depth (inc	:hes):	***************************************	***************************************				Hydric Soil	Present? Ye	·s	No <u> </u>
Remarks:		107-307-304-444-444-444-444-444-444-444-444-444		*****************	******************************	5460646006660045004500050000000000	***************************************	habetes 50 100 Es séculos es caballados como sido do escado c		
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DIRECTION	FEATURE ID	118D	DATE
East	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/26/2012

WETLAND DETERMINATION DATA FOR	
Project/Site: Strum Lublin City/Co	
Applicant/Owner: PPC	State: WT Sampling Point: 1/901
Investigator(s): KB+AJ Section	, Township, Range: SII TRONRAW
Landform (hillstope, terrace, etc.): depression Local relief	(concave, convex, none): Lancaure Stope (%):
Subregion (LRR or MLRA): LRL K Lat: 44 44 30.(	
soil Map Unit Name: Fairchild - Elm Lake com	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	
Are Vegetation N. Soil N. or Hydrology N significantly disturbed	
Are Vegetation N. Scil N. or Hydrology N naturally problemati	
SUMMARY OF FINDINGS - Attach site map showing samp	
riya opiiya vegetsuoi riessaa:	is the Sampled Area within a Wetland? Yes No
Hydric Sail Present?	, ·
Welfand Hydrology Present?   Yes No   (   Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID:
treatment fembrus mentiones becomes not a mile appoint about	
Structure 270	
Ph.4, # 173	
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)
∑ Seturation (A3)Mart 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	
Algal Mat or Crust (B4) Recent Iron Reduction	
Iron Deposits (B5) Thin Muck Surface (C7	<del></del>
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rema	<del></del>
Sparsely Vegetated Concave Surface (BB)	FAC-Neutral Test (D6)
Field Observations:	
Surface Water Present? Yes No Depth (Inches):	
Water Table Present? Yes No X Depth (Inches):	
Saturation Present? Yes X No Depth (inches): O	Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous	ious inspections), if available:
Remarks:	

Sapting/Shrub Stratum (Plot size: \_\_\_\_\_)

= Total Cover

= Total Cover

P

95\_= Total Cover

\_ = Total Cover

20

5

1

Tree Stratum (Ptol size: \_\_\_\_\_)

Herb Stratum (Plot size:

1. Gluceria Connellancis

2. Probes hopedus

3. Boty chum lanceoletum

4 Scilous raporina

Woody Vine Stratum (Plot size: \_\_\_\_\_)

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

5. Drappiers cristala 5

VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: (B) Percent of Dominant Species \_ (A/B) That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x1 = FACW species \_\_\_\_\_ x 2 = \_\_\_\_ FAC species \_\_\_\_\_ x 3 = \_\_\_\_ FACU species \_\_\_\_\_ x4 = \_\_\_\_ UPL species x 5 = Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% \_\_\_ 3 - Prevalence Index is ≤3.0° \_\_\_\_ 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) \_\_ Problematic Hydrophytic Vegetation (Explain) DACW THEY Indicators of hydric soil and welland hydrology must 093 be present, unless disjurbed or problematic, OBL 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 Hydrophytic Vegetation Present?

US Army Corps	of Engineers

Sampling Point: 11901

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2	u	L

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.)  Depth (Inches)		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains  Thydric Soil Indicators:  Hydric Soil Indicators:  Histoso (A1)  Histoso (A1)  Histoso (A1)  Histoso (Bpedon (A2)  Histoso (Bpedon (A2)  Histoso (A3)  Thin Dark Surface (S9) (LRR R, MLRA 1498)  Stratified Layers (A3)  Stratified Layers (A3)  Thin Dark Surface (S9) (LRR R, MLRA 1498)  Stratified Layers (A5)  Depleted Below Dark Surface (A1)  Thick Dark Surface (A2)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Matrix (S4)  Redox Dark Surface (F5)  Sandy Matrix (S6)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S8)  Dark Surface (S7) (LRR R, MLRA 1498)  Thin Clark Surface (T5)  Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Cher (Explain in Remarks)  Type:  Type:  Type:		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains  Hydric Soil Indicators:  Histosoi (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Matrix (F2)  Thic Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A11)  Sendy Mucky Mineral (F1)  Depleted Matrix (F2)  Sendy Mucky Mineral (F3)  Thick Dark Surface (A12)  Sendy Mucky Mineral (F1)  Sendy Mucky Mineral (F1)  Thick Dark Surface (A12)  Sendy Mucky Mineral (F1)  Sendy Mucky Mineral (F1)  Depleted Dark Surface (F3)  Sendy Mucky Mineral (F1)  Sendy Mucky Mineral (F1)  Depleted Dark Surface (F3)  Sendy Mucky Mineral (F1)  Sendy Matrix (F3)  Sendy Mucky Mineral (F1)  Sendy Matrix (F3)  Sendy Matrix		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Send Grains  Hydric Soil Indicators:  Histosoi (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Matrix (F2)  Thic Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A11)  Sendy Mucky Mineral (F1)  Depleted Matrix (F2)  Sendy Mucky Mineral (F3)  Thick Dark Surface (A12)  Sendy Mucky Mineral (F1)  Sendy Mucky Mineral (F1)  Thick Dark Surface (A12)  Sendy Mucky Mineral (F1)  Sendy Mucky Mineral (F1)  Depleted Dark Surface (F3)  Sendy Mucky Mineral (F1)  Sendy Mucky Mineral (F1)  Depleted Dark Surface (F3)  Sendy Mucky Mineral (F1)  Sendy Matrix (F3)  Sendy Mucky Mineral (F1)  Sendy Matrix (F3)  Sendy Matrix		
Hydric Soll Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (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 Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L)  Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thin Dark Surface (S9) (LRR K, L)  Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spocia (TA6) (MLRA 149B)  Sandy Redox (S5) Red Parent Material (F21)  Sandy Redox (S7) (LRR R, MLRA 149B)  Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:		
Hydric Soll Indicators:  Histosol (A1)		
Hydric Soil Indicators:  Histosoi (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Metrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S6)  Dark Surface (S7) (LRR K, L, R)  Polyvalue Below Surface (A12)  Polyvalue Below Surface (S8) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Iron-Manganese Masses (F12) (LRR K, L, R)  Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:		
Hydric Soil Indicators:  Histosoi (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Metrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S6)  Dark Surface (S7) (LRR K, L, R)  Polyvalue Below Surface (A12)  Polyvalue Below Surface (S8) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Iron-Manganese Masses (F12) (LRR K, L, R)  Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:		
Hydric Soil Indicators:  Histosoi (A1)  Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2)  MLRA 149B)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A11)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Metrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S6)  Dark Surface (S7) (LRR K, L, R)  Polyvalue Below Surface (A12)  Polyvalue Below Surface (S8) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Iron-Manganese Masses (F12) (LRR K, L, R)  Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Redox (S5)  Sandy Redox (S5)  Siripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:		
Hydric Soll Indicators:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  Hydrogen Sulfide (A4) Loemy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)  Stratified Layers (A5) Loemy Gleyed Metrix (F2) Polyvalue Below Surface (S8) (LRR K, L)  Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)  Sandy Gleyed Matrix (S4) Redox Depressions (F8) Red Parent Material (F21)  Sandy Redox (S5) Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Clher (Explain in Remarks)  *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:		
Histic Epipedon (A2)  Black Histic (A3)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Stratifled Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Dark Surface (S9) (LRR K, L, R)  Mesic Spodic (TA6) (MLRA 149B)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Type:		
Restrictive Layer (If observed):  Type:		
Туре:		
Depth (inches): No		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains   Location: PL=Pore Lining, M=Matrix.		

WET							legion	1/2-1/-
roject/Site:	Lublin	sagrangari	Clty/C	County: $\underline{\mathcal{C}}$	lark	<u>Co</u> 58	mpling Date:	121112
pplicant/Owner: <u>DP</u>	<u> </u>	Partemble.				State: WI	Sampling Point:	11903
rvestigatorisi: KB +	AJ		Secti	ion, Township	, Range:	SIL TRUN	R4W	
T. 1977 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	er hill	Slope					Sicosí	(%): 3-
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					Long.		<del>name o prop</del> er som det del som	<u>Uriyo</u> s
State: WE sampling Point: Investigator(s): KB + AS Section, Township, Range: SIL TQCN R4W  andform (hillslope, terrace, etc.): hillslope Local reflet (concave, convex, none): Abre Stope (%): subregion (LRR or MLRA): LBL Lat: 44 44 30.6 Long: 90 49 39.8 Datum: Ufficial Map Unit Name: Four child-Elim Latice (CMP) ex NWI classification:  we climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  we Vegetation Soil Or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature  Hydrophytic Vegetation Present? Yes No (If the Sampled Area within a Wetland? Yes No (If yes, optional Wetland Site ID:  Remarks: (Explain alternative procedures here or in a separate report.)  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aguatic Fauna (B13) Moss Trim Lines (B16)  High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)  Surface Water (A3) Hydrogen Suffide Odor (C1) Crayfish Burrows (C8)	3 :							
plecisite: Strum Lubin City/Country, Clark Co Sampling Date: Placent/Owner, DPC  State: WE Sampling Date: State: WE Sampl								
State   Strum Lubin	_ No							
Chycounty, Clark Co Sampling Date: 97  Applicant/Owner: DPC  State: WE Sampling Date: 97  Applicant/Owner: DPC  State: WE Sampling Date: 97  Section, Township, Rengo: SIL TOWN Rel. State: WE Sampling Point: 1  Section, Township, Rengo: SIL TOWN Rel. State: WE Sampling Point: 1  Sold Map Unit Name: For MRA): Left H 14 30. (Lots refield (concave, convex, none): A 24. 81  Sold Map Unit Name: For MRA): Left Left Left Complex  Nor Climatic / hydrologic conditions on the site bytical for this time of year? Yes No (If no, explain in Remarks.)  Sold Map Unit Name: For Hydrology Significantly Saturbed? Nor Vegetation Sold Nor Hydrology Significantly Saturbed? Are "Normal Cocumstances' precent? Yes No (If no explain in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature  Hydrochytic Vegetation Present? Yes No (If no explain in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature  Hydrochytic Vegetation Present? Yes No (If no explain in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature  Welland Hydrochytic Vegetation Present? Yes No (If no explain in Remarks.)  Hydrochytic Vegetation Present? Yes No (If no explain in Remarks.)  Sacondary Indicators: (Inimum of two re  Welland Hydrochytic Present? Yes No (If no explain in Remarks.)  Sacondary Indicators: (Inimum of two re  Welland Hydrochytic Present? Yes (Inimum of two re  Sacondary Indicators: (Inimum of two re  Sacondary Indicators: (Inimum of two re  Welland Hydrochytic Present? Yes (Inimum of two re  Sacondary Indicators: (Inimum of two re  Sacondary Indicators: (Inimum of two re  Sacondary Indicators: (Inimum of two re  Welland Hydrochytic Vegetation (Inimum of two re  Sacondary Indicators: (Inimum of two re  Sacondary Indicators: (Inimum of two re  Welland Hydrochytic Vegetation (Inimum of two re  Sacondary Indicators: (Inimum of two re  Sacondary Indicators: (Inimum of two re  Sacondary								
Applicant/Owner: DPC   State: WE sampsing Point:     9 D   Investigator(s): KD + A  Sociation, Township, Rango: SILTECAN R4 W Landform (hillsdop, terrace, etc.):	ures etc							
SOMMENT OF FINDING	30 - AUA	311 240E 1110	th allowing soi	ithman hou	III rocauc	iis, ualiseus, ii	ilborrair iem	uies, etc.
Hydric Sali Present?		Yes	No X	within a W	etland?		No <u>L</u>	
Remarks: (Explain alternativ	e procedures	here or in a	separate report.)	- All and a department	general service	and the second control of the second control	te se e e parento social ante e	an index and
Project/Site: STUM LUMIN City/County, CLAIK CO Sampling Date: 972- Applicant/Dwner: DPC State: JE Sampling Date: 972- Applicant/Dwner: BPC Sampling Point: JPC Samplin								
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	and the second	para	Salar Sa				7	
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			?					
			Other (Explain in Re	marks)				
	icave Suriace	(B9)				FAC-Neutral Te	# (UD)	
্ট্ৰেল কিবলৈ আৰু কিবল কৰা জুক্তিৰাৰ, এই গোলালা ১		arter Remail	ji Linasyo yangan ngamasa		t and the second		n an Name - Particle - 11	
	Yes		1,128,7					
	Yes		· · · · · · · · · · · · · · · · · · ·				19587 - 1964 <del>(</del> #11) - 10.	Jan G. A. A.
	Yes	. No. <u>×</u>	Depth (inches):		Wetland I	tydrology Present?	Yes	No
	ream dauge, r	nonitorina w	ell, aerial photos, pr	evious inspec	tions), if ava	ilable:	***************************************	
management of the second of th			a a service and service					
		-17 1 TB/1/14	The second secon				and a second of the second of the second of	
								NAMES OF TAXABLE PARTY
			1	3.2.		Addition States No. 1 To 12		
				the second second				
							The later of the second of	2 201
	1							
						•		

free Stratum (Plot size:		Dominar Species		Dominance Test worksheet:
		-		Number of Dominant Species That Are OBL, FACW, or FAC:(A)
				Total Number of Dominant
				Species Across All Strata: (B)
			-	Percent of Dominant Species
		<u> </u>		That Are OBL, FACW, or FAC: (A/I
				Prevalence Index worksheet:
<ul> <li>(a) 1. (b) (b) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c</li></ul>		- Total C		Total % Cover of Multiply by:  OBL species x1 =
Sapling/Shrub Stratum (Plot size:)	***************************************		JV21	FACW species 17 x2= 34
Panalus Francisco	5	7	FALO	FAC species x3 =
2 Populus arandidenta En		N	FACU	FACU species x4 = 248
3. Salix discolor	2	لرا	FACU	UPL species /0 x 5 = 50 Column Totals: 99 (A) 330 (B
		9 >		
5.		***************************************	-	Prevalence Index = B/A = 3.7
5	itainaksi madaisistoosidooloolooloolooloo	***************************************	nie innimitalistististististististististististististi	Hydrophytic Vegetation indicators:
		***************************************	-	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
	8	≃ Total C	over	3 - Prevalence Index is \$3.0
Herb Stratum (Plot size:)	lo	N	ili gara i sanciano i Alguno i	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1. Trolasis parquiea		- N	- WPL FACH	data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)
2 Bottypus Virginianus 3. Bromus Cilliatus	15	N	- ENGU	Problement Hydrophysic Vegetandri (Explain)
4 Solidare altisoma	5		FACU	'indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
5 Poo Dintenses	50	Y	FACU	
S. ASS State Control and Control				Definitions of Vegetation Strata:
, the commencement of the control of		4.44		Tree - Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DSH), regardless of height.
	Albur	ent teknis.		Sapiling/shrub - Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.28 ft (1 m) tall.
10.			<u> </u>	Herb - All herbaceous (non-woody) plants, regardles
	***************************************			of size, and woody plants less than 3.28 ft tall.
12.			valent i status	Woody vines - All woody vines greater than 3.28 ft i height.
	<u>81</u>	= Total C	over	The second secon
Woody Vine Stratum (Flot size:)			aavori vijo	elliki elli kan tirak elektrik
1. 2.	er ragedy	S 10 10 11 1	1 14 20 2	
				Mudrantudio
4.				Hydrophylic Vegetation
		= Total C	over	Present? Yes No /
Remarks: (Include photo numbers here or on a separat	e sheet.)	= Total C	over	Present? Yes No

Profile Desc	ription: (Describe to	the depth	needed to docum	nent the	indicator	ar confirm	the absence o	f Indicators.)	1
Depth	Matrix Calas (see all of)		Redor	c Feature	5	1 2 2 2	<b>∓</b> _androse	Sana malao	
(inches)	Color (molet)	96		70	Type'	Loc-	<u>Texture</u>	Remarks	
0-3	1042 5/2	100				***********	loan		
3-16	7.5 4R.5/6	10 à		-		***************************************	Sendy loan	with smill gravel	and Su
		1					•	•	
		<del></del>					***************************************		
	***************************************					***************************************	***************************************		
	<u> </u>			***************************************		-			
	, , , , , , , , , , , , , , , , , , ,	-			* *************************************	***************************************	***************************************		
		-		-	-	***************************************	***************************************		
		***************************************							
2040-101-141-141-141-141-141-141-141-141-		-			* *************************************		***************************************		
***************************************		Monthson Marie Mar		***************************************	-		***************************************		
***************************************	**************************************					***************************************			
Type: C=C	oncentration, D=Dept	tion, RM=F	leduced Matrix, MS	=Masked	d Send Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.	
Hydric Soli								or Problematic Hydric Solis <sup>3</sup> :	
Histosol	(A1)		_ Polyvalue Belov	v Surface	(S8) (LRF	t R.		ick (A10) (LRR K, L, MLRA 1498)	
- Constitution	pipedon (A2)		MLRA 1498)				Management .	rairie Redox (A16) (LRR K, L, R)	
	istic (A3)	-	_ Thin Dark Surfa					cky Peat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A4) d Layers (A5)	•	Loamy Mucky M Loamy Gleyed I			, L)		rface (S7) (LRR K, L, M) se Below Surface (S8) (LRR K, L)	
	d Below Dark Surface	(A11)	Depleted Matrix		.,			rk Surface (S9) (LRR K, L)	
	ark Surface (A12)		Redox Dark Sur		)			nganese Masses (F12) (LRR K, L, R)	
	Aucky Mineral (S1)	_	Depleted Dark	Surface (i	F7)		Pledmon	it Floodplain Soils (F19) (MLRA 149B)	
	Sleyed Malrix (S4)	-	_ Redox Depress	ions (F8)				pods (TAG) (MLRA 144A, 145, 149B)	
	Redox (S5)						4444444	ent Material (F21)	
	1 Matrix (S6)	LDA 440DS						allow Dark Surface (TF12) Explain in Remarks)	
DBIN OU	rface (S7) (LRR R, M	LNA 1400)					Conel (E	when in Lenions	
<sup>3</sup> Indicators o	f hydrophytic vegetati	on and well	and hydrology mus	t be pres	ent, unless	s disturbed	or problematic.		
Restrictive	Layer (if observed):		<del></del>	<del></del>			1		
Туре:									
Depth (in	ches):						Hydric Soll P	resent? Yes No 🔀	
Remarks									****
· · · · · · · · · · · · · · · · · · ·									



DIRECTION	FEATURE ID	119D	DATE
East	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/27/2012

WETLAND DETERMINATION	DATA FORM - Northcentral and Northeast Region
roject/site: Strum Lubin	city/county: Clark Co sampling Date: 9/27//
pplicant/Owner: <u>DP</u>	State: WT Sampling Point: 2001
restrigator(s): KB + AJ	Section, Township, Range: SII T 260 R4W
	Local relief (concave, convex, none): CONCAVE Slope (%): }
bregion (LRR or MLRA): LRL Lat: 44 1	The control of the co
Map Unit Name: Furchild-Elm Lake	
	e of year? Yes X No (If no, explain in Remarks.)
e Vegetation $N$ . Soil $N$ or Hydrology $N$ signifi	icantly disturbed? Are "Normal Circumstances" present? Yes No
e Vegetation, Soil or Hydrology natum	ally problematic? (If needed, explain any answers in Remarks.)
UMMARY OF FINDINGS - Attach site map sho	owing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Xes	is the Sampled Area within a Wetland? Yes No
Weltand Hydrology Present? Yes <u>×</u> No_	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separat	e report.)
	The state of the s
to contradict contribute the contribute (see a final contribute co	The state of the s
the second of th	and the state of the
Photo 177, 178	The state of the s
P/W/1 / / / ) 1 / 0	
YDROLOGY	
Vetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	
	tained Leaves (B9) Drainage Patterns (B10)
· · · · · · · · · · · · · · · · · · ·	Fauna (B13) Moss Trim Lines (B16)
Saturation (A3) Marl Dep	posits (B15) Dry-Season Water Table (C2)
Water Marks (B1) Hydroge	n Sulfide Odor (C1) Crayfish Burrows (C8)
<del></del>	Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	e of Reduced iron (C4) Stunted or Stressed Plants (D1)
	ron Reduction in Titled Sails (C6) Second Philo Position (D2)
	ck Surface (C7)Shallow Aquitard (D3)
	ixplain in Remarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Sparsely Vegetated Concave Surface (B8) Field Observations:	Z rac neutar res (bb)
Surface Water Present? Yes No X Depth (	highest
	inches):
The second secon	Inches): Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	
	and the second s
	and the second s
Remarks:	and the large of t
The second secon	
	'I
	,

Tree Stratum (Plot size:)		Dominant		Dominance Test worksheet:
THEE SUBJUIL (FIX SEE:	74 COVEL	Species r	_oiaius_	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
		· John		
				Total Number of Dominant Species Across All Strata: (8)
				Percent of Dominant Species
		Y.		That Are OBL, FACW, or FAC:(A/6)
e distribution policy and the second program of the second policy and the second policy		in the	y en sabré	Prevalence Index worksheet:
and the state of t		voj. 1987.	. saranja	Total % Cover of Multiply by:
Electrical absolute of galactic colors		= Total Co	/er	OBL species x1=
apling/Shrub Stratum (Plot size:)		ili Norobay sa	en lan efer	FACW species x 2 ≅
apling/Shrub Stratum (Plot size: ) Rubus idaes	3	<u> </u>	FALU	FAC species x 3 =
				FACU species x4 =
The state of the s	3 <del>27 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - </del>			UPL species x 5 =
				Column Totals: (A) (B)
				Prevalence Index = B/A =
	Secretary and the second	***************************************	***************************************	Hydrophytic Vegetation Indicators:
	***************************************	***************************************	***************************************	1 - Rapid Test for Hydrophytic Vegetation
	3	= Total Co		2 - Dominance Test is >50%
lerb Stratum (Plot size:)		- 10(a) CO	rei	3 - Prevalence Index is ≤3.0°
Calamagostis conadensis	20	Y	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
. Szir Dus Culterinas	50	<del></del>	08-	Problematic Hydrophytic Vegetation¹ (Explain)
Puly agram Shaith turn	5	2	OBL	
Glyceria Conadersis	<del></del>	-N-	UBL	Indicators of hydric soil and welland hydrology must
Symphyotrichem lancealcutum	10	7	FACU	be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
		***************************************	***************************************	Tree - Woody plants 3 in. (7.6 cm) or more in diamete
	73.7		. <i>8</i> 5 (3.1188).	at breast height (DBH), regardless of height.
	0. 4 <u>06</u> . 2004-31	\$ - 20 - \$ \$ P	- 180.	Sapling/shrub - Woody plants less than 3 in, DBH and greater than or equal to 3.28 ft (1 m) tall.
			· · · · · · · · · · · · · · · · · · ·	
0. <u>A. A. A</u>	***************************************	**************************************	-	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3		***************************************		
<u> </u>	92			Woody vines - All woody vines greater than 3.28 ft in height.
	44	= Total Co	⁄er	Salada Antara Salada Antar
Voody Vine Stratum (Flot size:)				
\$ 13.50 × 25.5		- W. J. V	4-16. (5.3 store)	
			***************************************	
	-			Hydrophytic
				Vegetation   V

= Total Cover

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

Sampling	Point:	120	DI	
Sumpang	POINT.	100	-	

25	_		
э	٠.	В	L

	* *	to the dep	th needed to docum			ar confir	n the absence	of Indicate	жя.)	eteratura attitus ilmeriologica kuninasipaniyati eti
Depth (inches)	Matrix Color (moist)	%	Redox Color (moist)	Feature %	Type'	Loc	Texture		Remarks	
0-12	1.543/1	93	7.54R 2.5/3	_7_		PL	Silty clay	loum		Ĺ.
12-15	64, 2.5/N	25	7.54R 2.5/3	75	<u> </u>	PL	Sithu chu	lourn		
15-19	2.54 6/2	100		***************************************	***************************************	**************************************	Surd			
*				*************		***************************************				
***************************************				***************************************	***************************************		***************************************	***************************************		<del></del>
***************************************				***************************************				***************************************		
			***************************************	***************************************	***************************************	***************************************	***************************************	***************************************		
	And the second three second transfer and the second			************	***********	*************				eistinismusi minemusest ta muissa.
		-	***************************************		***************************************	***************************************		***************************************		
***************************************	***************************************		***************************************	***********	************	***************************************		# Company of the Company of		
***************************************				***************************************		***************************************				
	***************************************	-	***************************************		***************************************			***************************************		
	***************************************				-					
Type: C=C Hydric Soli		letion, RM	=Reduced Matrix, MS	=Maskec	Sand Gr	ains.			Lining, M≃Matr matic Hydric S	
Histosol			Polyvalue Below	Surface	(S8) (LR)	R.			(LRR K, L, ML)	
Histic E	pipedon (A2)		MLRA 1498)				Coast	Prairie Red	ox (A16) (LRR	K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surface Loamy Mucky Mi					-	or Peat (S3) (L (LRR K, L, M)	
	d Layers (A5)		Loamy Gleyed M	letrix (F2		4 <b>-</b> 7			Surface (\$6) (LI	
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix (				-		(S9) (LRR K, I Vlasses (F12) (L	-
- innerent	Mucky Mineral (S1)		Depleted Dark S				announce.		ein Soils (F19) i	
1	Sleyed Matrix (S4)		X Redox Depression	ons (F8)				-	G) (MLRA 144 <i>A</i>	(, 145, 149B)
1	Recox (S5) 1 Matrix (S5)	,					Will Street	arent Mater Shallow Dari	ial (F21) k Surface (TF12	?i
	rface (S7) (LRR R, I	MLRA 149	B)					(Explain in	•	-7
<sup>3</sup> Indicators o	d hudronhulic vecete	tion and w	elland hydrology must	he nrece	ent unles	e rijeturtun	d or analysemeli	r		
	Layer (if observed):		coolin Tyd dogy max	oo prose	Jam, Grinos	3 00 50 10 00	J G problemes	u.		
Туре:									١.	
Depth (in	ches):						Hydric Sol	Present?	Yes	No
Remarks:								***************************************		and an in the state makes the state of the description of the later of personal control to the state of the s
								~~~		

WETI	LAND DE	TERMINA	TION DATA				in an experience of the second	0.1
Project/Site: 5+rum 1	Lublin	ury subjects (i	C#	y/County: <u>C</u>	lark	Co	Sampling Date:_	9127/1
Applicant/Owner: DP C	a Shippy of a	ng pada H		Supplier of the Superior		State: WI	Sampling Point	: 12002
Investigation(s): FB+A	IJ		'Se	ction. Township	. Range: 🤇		NR4W	
Landform (hillslope, terrace, etc	1 1 1	5/5/00		relief (concave,	the contract of contract of the			e (%): 2
Subregion (LRR or MLRA):		l of	44 44 2				12 Datum	
					LONG	100000000000000000000000000000000000000	7.00	· <u>/ / / 9 9 9</u>
Soil Map Unit Name: <u>+ CUV</u>						NWI classifi	A	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Are climatic / hydrologic conditi		Nautori i - Natarat 🗗		La train a section of		(If no, explain in I	1	The second section of the sect
Are Vegetation Soil	<u>∨</u> , or Hyd	rology <u>/</u>	significantly dis	sturbed?	Are "Normal	Circumstances*	present? Yes	No
Are Vegetalion Soil/	V_ or Hyd	rology <u>//</u>	naturelly proble	ematic?	(If needed, e	explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	S – Attac	ch site m	ap showing s	ampling poi	int locatio	ons, transect	s, important fe	atures, etc.
				Is the Sam				
Hydrophytic Vegetation Prese		Yes Yes		1	etland?	Yes	No <u>×</u> _	
Hydric Scil Present? Welland Hydrology Present?		res Yes	No X					
Remarks: (Explain alternative			· · · · · · · · · · · · · · · · · · ·	if yes, opuc	mai Wetland	site ID:		
Mentalina, (Explass sacillaute	; procedures	illere Ol III) e	separate report.)					
Structure 2	73	e de la companya de l		a sugress				
9,100,100							en e e e e e e e e e e e e e e e e e e	-
2 hide 173	in the State of State							
Photo # /	No			<b>陳春 - ***</b>			gyster og 1914	in the second se
HYDROLOGY	A PARTIE OF	erio de la composição de La composição de la compo					and the second s	
Wetland Hydrology Indicato	irs:	v.a	5.			Secondary India	ators (minimum of t	wo required)
Primary Indicators (minimum	of one is rec	uired: check	( all that apply)			Surface So	l Cracks (96)	
Surface Water (A1)	14,374-015	1.000	Water-Stained Le	aves (B9)		Orainage P	atterns (B10)	
High Water Table (A2)	Director of the Edit The State of the State		Aquatic Fauna (B	13)		Moss Trim	Lines (B16)	
Saturation (A3)	Harry British	-	Mari Deposits (81	5)		-	Water Table (C2)	
Water Marks (B1)	1.0	-	Hydrogen Sulfide		4.5	Crayfish Bu		
Sediment Deposits (B2)			Oxidized Rhizosp		Roots (C3)	part of the state of the state of	Visible on Aerial Ima	The first section of
Drift Deposits (B3)			Presence of Redu		-it- rom		Stressed Plants (D1	·
Algal Mat or Crust (B4) Iron Deposits (B5)		- 1 - 50 - 50 <del>- 10 - 10</del> - 10 - 10 - 10 - 10 - 10 - 10	Recent Iron Redu Thin Muck Surfac		an (Co)	Geomorphi	c Position (D2)	and the same
Inundation Visible on Aer	rial Imanery (		Other (Explain in	• •			raphic Relief (D4)	
Sparsely Vegetated Con-		- <del></del>	Citic (Capitali II	ricino asy			al Test (D5)	
Field Observations:		anks to			1			
Surface Water Present?	Yes	No ×	Depth (inches):		1		energy of Additional Section (April 1997)	
Water Table Present?	Yes		Depth (inches):	100				
Saturation Present?	Yes		Depth (inches):		Wetland I	Hydrology Pres	mi? Yes	No <u>×</u>
(includes capillary fringe)  Describe Recorded Data (stre	eam gauge, r	monitoring v	vell, aerial photos,	previous inspec	tions), if av	aila ble:	and the second s	
•	-		a e e e					
Remarks:								
		1995				and the english student	e sester di di di	

### VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1	-44-74-74-74-74-74-74-74-74-74-74-74-74-		Charts -	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
	· gariraa			
3. <u>L. Burghan L. L. Langlin, Carleya</u>				Total Number of Dominant Species Across All Strate: (B)
4				Percent of Dominant Species
	-			That Are OBL, FACW, or FAC: 33,3 (A/B)
	4	tal Depart	<u> </u>	Prevalence Index worksheet:
7. KAROLI II ORBO KARANDA ROBERTAR MENERALA		4.3		Total % Cover of Multiply by:
केरना प्रदेश । जाता करानी सुवार जाता कुला के जाता है।				OBL species
Sapling/Strub Stratum (Plot size: )  1 Papulus tenisloides		Asserts 🕡 🖟	galija aka	FACW species 45 x2= 90
1. Populus tremulates		<u>~~</u>	FACU	FAC species
2		**************************************	***************************************	FACU species
3.				Column Totals: 92 (A) 298 (B)
	zazania aga e			
5.	***************************************	***************************************	***************************************	Prevalence Index = B/A = 3.2
É, <u></u>				Hydrophytic Vegetation Indicators:
		****		1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
		= Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size)			FA	4 - Morphological Adaptations* (Provide supporting
1. Kulus hispidus	30	1.	FACH	data in Remarks or on a separate sheel)
2 Blonus Cillias	15		FACU	Problematic Hydrophytic Vegetation1 (Explain)
3. Triplies purpurea		<del>- J</del>	UPL_	Indicators of hydric soil and welland hydrology must
4. You Prefixes	20	<del></del>	FACH	be present, unless disturbed or problematic.
5 Pontent II simplex	_5_	<u>N</u>	FACU	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.
9				
10				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.	-	<del></del>	***************************************	Woody wines - All woody vines greater than 3.26 ft in
	90	= Total Cov	**************************************	height.
Woody Vine Stretum (Plot size: )		- IUAI CO		en transfer of the second of t
1,			有建筑性 化水	The second of th
	o roegysi o	Brund Color	785. 1 AC	The state of the s
3,		-		Livetenburge
<u>.</u>				Hydrophylic Vegetation
	•	= Total Co	rer	Present? Yes No
Remarks: (Include photo numbers here or on a separate s	iheet.)	1		
and the second s				



Sampling Point: 12002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type'	Loc	Texture		Remerks	
0 ~ 3	104R 31,	100	COO (IIIOS)		1706		/oan	<del></del>	Remeins	
	10412 4/2					***************************************		***************************************		
3-12	10712 172	100		-	***************************************		Saula loan	<del></del>	·	
12-13								Chur	204	
13-19	2,54513	100			*************		loamy sa	nd		
,										
***************************************	<del></del>	-		<del></del>	***************************************	***************************************	-	***************************************		
Aciali and a second sec		a distribution of the second		an alikulaikintaineettinee				adamani malmilikin pakisakini dan da	ministratura et disconne chesisti de colonia de cincia.	
	***************************************		***************************************	-	-					
***************************************		· ************************************	***************************************	-	***********	************************	<del>cominimum t</del>	hanista visuos vana		
				**	***************************************	***************************************				
					***************************************	***************************************				
¹Type: C=C	oncentration. D=Dec	eletion, RM	=Reduced Matrix, M	S=Masked	Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore I	.ining, M≃Mat	ńx.
Hydric Soli		and and a second se			need and incoming to consider the				natic Hydric S	
Histosol			Polyvalue Belo		(S8) (LRI	₹R,			LRR K, L, ML	
	olpedon (A2) stic (A3)		MLRA 1498 Thin Dark Surfa	5		PA 1499	2441240		x (A16) (LRR or Feat (S3) (L	
	n Sulfide (A4)		Loamy Mucky !		,			-	(LRR K, L, M)	
	d Leyers (A5)		Loamy Gleyed		)				urface (S6) (L	
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matri: Redox Dark Su						(S9) (LRR K, lasses (F12) (l	. *
- Indiana	Aucky Mineral (S1)		Depleted Dark							(MLRA 1498)
	ileyed Matrix (S4)		Redox Depress		.,					A, 145, 149B)
	tedox (S5)						3000000	rent Materi	7 .	91.
	l Matrix (86) rface (87) (LRR R, I	MLRA 149	Bì					laecw Derk Explain in F	: Surface (TF1: (emarks)	2)
- Marie Control			•				-			
			elland hydrology mu	st be prese	nt, unles	s disturbed	d or problematic.			
	Layer (if observed)	ž.								
Type:	-bast		***************************************				Hydric Soil I	Present?	Yes	No 🗸
Remarks:	ches):						Tildire con i			
rtellains.										
			*							



DIRECTION	FEATURE ID	120D	DATE	
Northeast	PHOTOGRAPHER	Kathy Bellrichard and Apryl Jennrich	9/27/2012	

WET	LAND DETERMI		RM – Northcentral	and the state of the second of the state of	lon / /
Project/Site: 34 Luna	Lublin	City/	county: <u>Clark</u>	CO Sampi	ing Date: <u>7/27//</u>
Applicant/Owner: DPC			man	State: WF Sam	pling Point: 12301
Investications): KB+	A J	Seci	ion, Township, Range: 🗻	512 T2611 1	24W
Landform (hillslope, terrace, etc	er Ölkin	医三氯磺胺二氢 化硫甲基二甲基二甲基甲基二甲基甲基甲基	lief (concave, convex, no	and the control of editional and engineering age of the control of the control	Slope (%):
Subregion (LRR or MLRA):	and the second of the second o	al: 44 44 3	entropia in a control of the control		4 Datum: NAO 83
Soil Map Unit Name: Four		The state of the s	AND SECTION AND ADDRESS OF THE PARTY OF THE	NVI classification:	
		The Court of the C	~ · · · · · · · · · · · · · · · · · · ·	attende i sugaranten en tallet en getallet.	
Are climatic / hydrologic conditi	🖊 이 보면 기계하다 그 사람이 되는 그 그 아니다.	All in the second second second	The state of the s	(If no, explain in Remarks	The same of the sa
Are Vegetation, Soil	or Hydrology_	AVIII a markana makana a markana	appropriate and the second of	Circumstances* present?	and the state of t
Are Vegetalion <u>IV</u> , Soil	<u>ル</u> , or Hydrology_	√ naturally problen	ratic? (If needed, o	explain any answers in Re	marks.)
SUMMARY OF FINDING	SS – Attach site	map showing sa	mpling point location	ons, transects, impo	ortant features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present?	ont? Yes Yes Yes	K No	is the Sampled Area within a Wetland?	Yes No	The state of the s
Welland Hydrology Present?			If yes, optional Wetland	Site ID:	Marin Barrana and American
Remarks: (Explain alternative	e procedures here or	in a separate report.)			and the composition of the second
and the second of the second o	And the second of the second o				and the second second
	od residentification. Otografia		energy and a second second		
06 1 + 1	$\neg a$				
Photo # 1	77				an er er eren er
HYDROLOGY					
Wetland Hydrology Indicate	)rs:			Secondary Indicators (m	inimum of two required)
Primary Indicators (minimum	of one is required; ch	eck all that apply)		Surface Soll Cracks	( <del>2</del> 6)
Surface Water (A1)	nakolan njilih je njeh j	Water-Stained Leav	es (89)	Drainage Patterns (F	310)
High Water Table (A2)	un la fill desemble desemble. La como de la companie	Moss Trim Lines (B1	6)		
∠ Saturation (A3)	name judan en Sig	Mari Deposits (815)	la de la companya de	Dry-Season Water T	able (C2)
Water Marks (B1)	ing ang ang magaginan sa 🍍	Hydrogen Sulfide C		Crayfish Burrows (C	
Sediment Deposits (B2)		The second of th	eres on Living Roots (C3)	<ul> <li>A production of the production.</li> </ul>	Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduc		Stunted or Stressed	
Algai Mat or Crust (84) Iron Deposits (85)		Recent Iron Reduct	ion in Tilled Solls (C6)	Geomorphic Position Shallow Aquitard (D.	
Inundation Visible on Ae	rial Imageny (87)	Other (Explain in R	, ,	Microtopographic Re	•
Sparsely Vegetaled Con		Cinci (Explain in it	illulato)	FAC-Neutral Test (C	
Field Observations:		and the second second			
Surface Water Present?	Yes No	Cepth (inches):	And the Control of th		
Water Table Present?	Yes X No		15		
Saturation Present? (includes capillary fringe)	Yes X No		% Wetland I	Hydrology Present? Ye	is <u> </u>
Describe Recorded Data (str	eam gauge, monitorin	ng well, aerial photos, p	revious inspections), if ava	ailable:	
		The second second of the second secon	enanta de la servició de la composició d		
Remarks;	777743283 77845 - 58		control of the second		and the second of the second o
Remarks.	79300, 79 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		and the second second		
W 1			Part of the state		

Parin Branch, III. (Frank as an an Astronomia)		Dominant		Dominance Test worksheet:
<u>Free Stralum</u> (Pfol size:)	% Cover	Species /	Sians	Number of Dominant Species
	Ala galarian	- Andrews		That Are OBL, FACW, or FAC:(A)
. <u> </u>			-	Total Number of Dominant
물로 가장 하는 사람들은 사람들은 사람들이 가지 않는 것이 되었다. 그 사람들은 사람들이 다른 사람들이 되었다. 그 사람들이 되었다면 보다는 사람들이 되었다면 보다는 것이다. 그 사람들이 되었다면 보다는 것이다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보		***************************************		Species Across All Strate:(B)
,				Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B
	فسنسيخفينية متنت		. <u>16 </u>	
*				Prevalence Index worksheet:
r <u>anta da minara and managa</u>	and the second s			Total % Cover of Multiply by:
Control of the second of the s				
Sapting/Shrub Stratum (Plot size:)	at fatur <sub>a</sub> sa	1.7		FACW species x 2 =
Prancis ponsylvanica		<u>N</u> _	TACU	FACU species x4 =
			· · · · · · · · · · · · · · · · · · ·	UPL species x 5 =
			- Maria de la companya della companya della companya de la companya de la companya della company	Column Totals:(A)(B)
and the second transfer of the second transfe	- Ann and American			
, ————————————————————————————————————		***************************************	***************************************	Prevalence Index = B/A =
		***************************************	**************************************	Hydrophytic Vegetation Indicators:
*	-			X 1 - Rapid Test for Hydrophytic Vegetation
8		= Total Co	∕ <b>e</b> r	2 - Dominance Test is >50%
lerb Stratum (Piol size)			· · · · · · · · · · · · · · · · · · ·	3 - Prevalence Index is ≤3.0°
. Concy Streets	35	4_	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
	10		FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		ay a a a a shi a a a	, kangin T	
		Trakayati Jel		Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.
	****			
Section 1997 Annual Control of the C	-			Definitions of Vegetation Strata:
	eresi sa bagi s		Accessors and a second and a second assessment as	Tree - Woody plants 3 in. (7.6 cm) or more in diamete
- A CALL LANGE WAS AS LESS LONG LONG LONG LONG LONG LONG LONG LONG				at breast height (DBH), regardless of height.
		***************************************	-	Sapling/shrub - Woody plants less than 3 in. DBH
· · · · · · · · · · · · · · · · · · ·		7	: <del></del>	and greater than or equal to 3.28 ft (1 m) tall.
O. <u>60 de la compaña de la com</u>			- 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
1. <u>2007</u> (1907) (1907) (1907)			, <del>, , , , , , , , , , , , , , , , , , </del>	
2.		***************************************	and the Pierr	Woody wines - All woody vines greater than 3.28 ft in height.
	45_	= Total Co	ver	
Noody Vine Stratum (Plot size:)	i nan nikani popul	e e capación e mais 1910.		
* *** *** *** *** *** *** *** *** ***		***************************************		The Artist Control of the Control of
2. Section of the sec	ews in synapsis.	an talkat Talkat	-	
3,		-	- Hittinian terrorian	Hydrophytic
				Vegetation V
		■ Total Co	ver	LIASONIL IA2 NO
Remarks: (Include photo numbers here or on a separal	le sheet.)	= Total Co	ver	Present? Yes No

	cription: (Describe	to the dept				or confirm	the absence	of Indicato	ors.)	
Depth (inches)	Matrix Color (moist)		Redo: Color (moist)	Features	Type	Loc	Texture		Remarks	
0-4	7.5 YR 4/4	100	223123 10012131	***************************************			Silly cla	- 10am		
4-8	2.58 5/2						Sard	1	e stick	
8-10	104R 2/1			***************************************	***************************************	***************************************	Silt.lan			<del>`````</del>
		100						voluery		
10-18	2.54 4/2	100		***************************************	***************************************	***************************************	Sand	***************************************		
				-			<del></del>	***************************************		
***************************************				***************************************	***************************************	***************************************	***************************************	***************************************		
	<u> Alianii annoi illoonoo kanaloinin maleisinin maleisin</u>		- Sanga Sangan ang Sangan				barrii da	atamatan da	autinė advektorium trietorium militarum	
		-			***************************************			***************************************		***************************************
						***************************************				
	Mediatory values and a grown and total and in control of the contr	• =====================================			***************************************		manufacture and a section is a security of a ferror of a section of a			
***************************************	***************************************			wanted constitution:		*One-miles in the later of		***************************************		
	######################################		<del></del>		***************************************	***************************************	***************************************	-		**************************************
Type: C=C	oncentration, D=Dep	letion Ru-	Reduced Matrix List	=Maskad	Sand Gr	ains	<sup>2</sup> Location	: PL=Pore	Lining, M=Matr	ix.
Hydric Soil									matic Hydric S	
Histosol	. w		Polyvalue Belov		(S8) (LRI	₹R,			(LRR K, L, MLI	
	pipedon (A2) istic (A3)		MLRA 1498) Thin Dark Surfa		RR R. MI	RA 149B	- Managements		ox (A15) (LRR or Feat (S3) (L	
}	en Sulfide (A4)		Loamy Mucky N				Dark \$	Surface (S7)	(LRR K, L, M)	
1	d Layers (A5)		Loamy Gleyed I		•				Surface (\$8) (LI e (\$9) (LRR K, I	
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Matrix Redict Dark Sur						vasses (F12) (L	*
Sandy l	Mucky Mineral (\$1)		Depicted Dark t	Surface (F	7)		Piedm	ant Floodpl	ein Soils (F19)	(MLRA 1498)
	Gleyed Matrix (S4) Redox (S5)	*	Redox Depress	ions (FB)				Spoce (TA) arent Mater	6) (MLRA 144 <i>A</i> iol (521)	(, 145, 149B)
	1 Matrix (86)								k Surface (TF1:	2)
	sface (S7) (LRR R, I	NLRA 1498	)				Cther	(Explain in I	Remarks)	
3Indicators o	af hydrophytic vegete	tion and wel	liand hydrology mus	t he nrese	ot unles	s disturbed	i or problematic	d		
	Layer (if observed)			P						
Type:		×455-100-100-100-100-100-100-100-100-100-1	Controlination						\	
Depth (in	iches):	~*****	and the same of th				Hydric Sol	Present?	Yes _X	No
Remarks:										

wer	LAND DETER	RMINATION DATA	FORM - Northcentra	al and Northeast	Region	
Project/Site: Struw	Lublin	CI	ty/County: <u>Clari</u> c	<u> </u>	Sampling Date: <u>912</u>	7/12
Applicant/Owner: DPC				State: WI	Sampling Point: 123	3 D2
Investigator(s): にら+		S	ection, Township, Range:			
Landform (hillslope, terrace, et	and the confidence of the conf	· · · · · · · · · · · · · · · · · · ·		en annual mental in the contraction of the property of the contraction	postu nie odnicija i kritik i kritika i producenje i kritik i prijek postavaje i m	3
Subregion (LRR or MLRA):						
Soil Map Unit Name: Tuiv						- A
Are climatic / hydrologic condit						
Are Vegetation, Soil/	■ 44			el Circumstances" pro	sent? Yes N	o
Are Vegetation, Soil/	$\underline{\mathcal{V}}$ , or Hydrolog	y <u>N</u> naturally probl	emetic? (If needed	, explain any answers	in Remarks.)	
SUMMARY OF FINDING	GS – Attach s	ite map showing s	ampling point locat	ions, transects,	important feature	s, etc.
Hydrophytic Vegetation Pres Hydric Soll Present? Wetland Hydrology Present?	Yes	No <u>×</u>   No <u>N</u>   No <u>×</u>   No <u>N</u>   N	Is the Sampled Area within a Wetland? If yes, optional Wetla	Yes	. No <u>X</u>	
Remarks: (Explain alternativ		THE RESIDENCE OF THE PROPERTY		and a superior of the superior	entrang managan material dan sa	
And the second s					and the second	
melweji d	Samuel Sage					
erskie egipt fan dêr dêr e						
DL 1 1	160	1				
Photo #	100,19	<u> 5(</u>			28 F 3 1 1 2 2 8 2 8	
HYDROLOGY	tare a real ruy affire explosion anno a gallane		100 miles (100 miles (			
Wetland Hydrology Indicat	ors:			Secondary Indicate	xs (minimum of two rec	wired)
Primary Indicators (minimum	of one is required	check all that apply)		Surface Soil C	racks (E6)	
Surface Water (A1)	dan yayayar	Water-Stained Le	aves (89)	Orainage Patte	ems (B10)	
High Water Table (A2)		Aquatic Fauna (B	-	Moss Trim Lin	,	
Saturation (A3)	ikan mengangan sebagai Pangangan	Marl Deposits (B		Dry-Season W		
Water Marks (B1)		Hydrogen Sulfide	Odor (C1) wheres on Living Roots (C3	Crayfish Burro	ws (C8) ible on Aerial Imagery (	CO)
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rinzos,		The second secon	essed Plants (D1)	Ç9j
Algai Mat or Crusi (B4)	1.194		action in Titled Solls (C6)	Geomorphic F		
Iran Deposits (B5)	the production of the section	Thin Muck Surfac		Shallow Aquita		
Inundation Visible on Ac	rial Imagery (87)	Other (Explain in	Remarks)	Microtopograp	hic Relief (D4)	
Sparsely Vegetaled Con	icave Surface (B8	)		FAC-Neutral 1	est (D5)	
Field Observations:	gi et in na grada					
Surface Water Present?		$\times$ Depth (Inches):				
Water Table Present?		Depth (inches):			2 - 21 - 12 23 41 62 6 - 1	
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland	d Hydrology Present	? Yes No _	$\Delta$
Describe Recorded Data (str	ream gauge, moni	toring well, aerial photos				<del></del>
			a page discourse a specific except, see that the	and the state of t		
Remarks:						
	48	Service Control				
and the second of the second				The State of the Control of the Cont		
İ			1 1 SAU 43		1980 (19	
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l .						

	46	Karata and to desire	
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
			Number of Dominant Species
			That Are OBL, FACW, or FAC: (A)
2	~		Total Number of Dominant
🎝 🚉 jeda iz izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorina izvorin	g i Arrivir		Species Across All Strata: (B)
	6 A		Percent of Dominant Species
5.			That Are OBL, FACW, or FAC: (A/B)
6. Sandament de sérvices des la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya del companya de la companya de la companya del companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya			Prevalence Index worksheet:
7.	51/4	te tiga Vigue jakot	Total % Cover ofMultiply by:
s and the second and a second second second second		= Total Cover	OBL species
<b>8</b>	Printed in section of the second	' 1	FACW species /o x2= 20
Sapting/Shrub Stratum (Plot size:)	ne	V	FAC species x3 =
1. (OLDERNIA Delegina	· <u>/</u>	WPL	FACU species 70 x4 = 280
z Rubus alleghensis	_ 5	N FACU	UPL species 25 x5 = 125
3.			Control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the contro
	07 - 200 (1970) 1970 - 1980 (1970)		al de la companya de la companya de la companya de la companya de la companya de la companya de la companya de
5		. <u></u>	Prevalence Index = B/A = 3.9
6.		-	Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
		-	2 - Dominance Test is >50%
	30_	≖ Total Cover	3 - Prevalence Index is ≤3.0°
Herb Stratum (Plot size:)		a negativa est et per mai ja anta a se	4 - Morphological Adaptations (Provide supporting
1. Rulais hispidus	10	H FALLY	data in Remarks or on a separate sheet)
2. Poa pratenses	(es	7 FACY	Problematic Hydrophytic Vegetation* (Explain)
	-		
3. Francisa Virginiana			Indicators of hydric soil and welland hydrology must
4 Vaccinium vitis-idaea		J FAC	be present, unless disturbed or problematic.
5, <u>************************************</u>			Definitions of Vegetation Strata:
6. 100 100 100 100 100 100 100 100 100 10	61	Territoria	maigrations of as faronal angest and acceptance
7	-	value de la companya de la companya de la companya de la companya de la companya de la companya de la companya	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
1973 2 PM resource - Oracle - 197		sa sa sa sa sa sa sa sa sa sa sa sa sa s	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) tell.
10.		and the second second	Herb - All herbaceous (non-woody) plants, regardless
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## Strum-Lublin 69kV (N-3) Transmission Line Rebuild Project Phase I: Strum Tap to Willard Tap



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#### COMMENTS

Wetland is located adjacent to an unnamed intermittent tributary of Cameron Creek.

### Appendix E: Cultural Resources Report

#### Phase I Archaeological Survey of Approximately Thirty Three Miles of the Proposed N-3 Transmission Line Rebuild, Strum Tap to Willard Tap, Located in Trempealeau, Jackson, Eau Claire, and Clark Counties, Wisconsin

Report Prepared for: Dairyland Power Cooperative 3200 East Avenue South P.O. Box 817 La Crosse, WI 54602

> Report Prepared by: Vicki L. Twinde-Javner

> Principal Investigator: Vicki L. Twinde-Javner

Mississippi Valley Archaeology Center University of Wisconsin-La Crosse

Reports of Investigations No. 942

November 2012



#### **ABSTRACT**

In October 2012, personnel from the Mississippi Valley Archaeology Center (MVAC) conducted a Phase I archaeological survey for Dairyland Power Cooperative (DPC) of a portion of the N-3 transmission line rebuild located in Trempealeau, Jackson, Eau Claire, and Clark counties, Wisconsin. The portion surveyed by MVAC in 2012 was from the Strum Tap, located southwest of Osseo, to the Willard Tap, located northeast of Rock Dam Lake, and was approximately thirty three miles long. The wires for the one to two foot round poles will be overhead and existing roads or field roads near the line will be used to access the proposed pole locations. Since the only ground disturbance will be at the new pole locations, and exact pole locations were staked by DPC prior to the archaeological survey, only the new pole locations were surveyed. Both pedestrian survey and shovel testing were utilized. No archaeological sites were discovered and no previously recorded sites overlap the project area. Therefore, no further archaeological work is recommended.

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#### INTRODUCTION

In October 2012, personnel from the Mississippi Valley Archaeology Center (MVAC) conducted a Phase I archaeological survey for Dairyland Power Cooperative (DPC) of approximately thirty three miles of the N-3 transmission line from the Strum Tap to the Willard Tap, located in Trempealeau, Jackson, Eau Claire, and Clark counties, Wisconsin (Figure 1). The wires for the one to two foot round poles will be overhead and existing roads or field roads near the line will be used to access the proposed pole locations. Almost all of this project follows the existing N-3 transmission line and includes replacing existing poles or placing new poles, with the exception of a total of approximately three quarters of mile where in various areas, a few pole locations are being re-routed from the existing line location. These poles will be placed approximately 350 to 600 feet apart, depending on the terrain and vegetation. Since the only ground disturbance for the project will be at the new pole locations, and the exact pole locations were staked by DPC prior to the archaeological survey, only the new pole locations were surveyed. Both pedestrian survey and shovel testing were utilized.

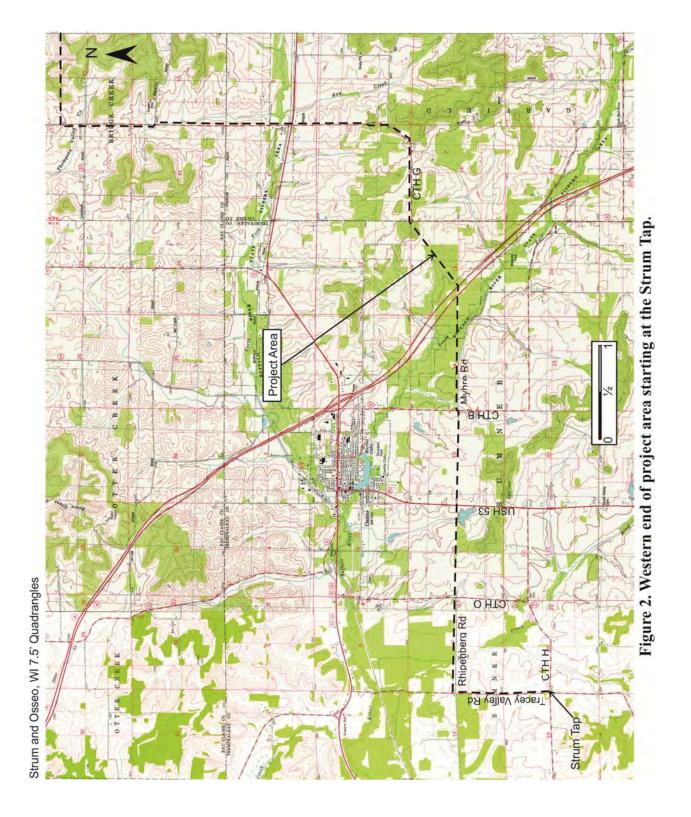
#### **ENVIRONMENTAL CONTEXT**

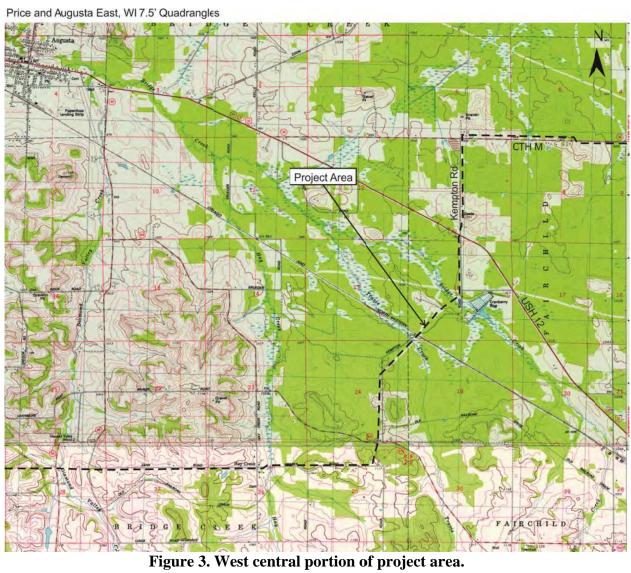
The transmission line is located in: Sections 12, 13, 14, 15, 16, 17, and 20 of Township 24 North, Range 7 West in Trempealeau County; Sections 5, 7, and 8 of Township 24 North, Range 6 West in Jackson County; Sections 24, 25, 26, 27, 28, 29, 30, 31, and 32 of Township 25 North, Range 6 West in Eau Claire County; Sections 3, 5, 6, 7, 8, 9, 10, 18, and 19 of Township 25 North, Range 5 West in Eau Claire County; Sections 23, 24, 27, and 34 of Township 26 North, Range 5 West in Eau Claire County; and, Sections 10, 11, 12, 15, 16, 17, 19, and 20 of Township 26 North, Range 4 West in Clark County (Figures 2, 3, 4, and 5). The project crossed both public and private land, and archaeological public land permits were obtained from the Wisconsin Historical Society prior to the survey for the public land (Appendix 1).

Starting at the western end at the Strum Tap, the project starts at the intersection of CTH H and Tracey Valley Road. It follows the existing N-3 line on the east side of Tracey Valley Road for one mile, then heads east on the north side of Rhipenberg Road for one mile until CTH O. It heads east cross country for two miles crossing USH 53 until it comes to CTH B, then is located on the north side of Myhre Road for approximately a half mile, and continues east cross country, crossing over Interstate 94 and heading northeast until it comes to CTH G. It follows CTH G east for approximately one mile on the north side of the road, and then heads north along CTH G for approximately three and three quarter miles, switching back and forth over the road in various places. It then heads east cross country for almost two miles, crossing CTH M, and is on the south side of Zank Road heading east until the intersection of Hay Creek Road. This road then turns into Gerber Road, and the transmission line is on the north side of Gerber Road, then heads northeast near Kempton Road for approximately three miles until it reaches CTH M. From here it follows CTH M east for approximately three and half miles crossing from the north side to the south side of the road, then heads north along CTH H for approximately three miles on the west side of the road. It then follows CTH H east for one mile on the north side of the road, then follows Rock Dam Road east for two miles on the north side of the road, then follows Camp Globe Road north east for a mile and a half on the north side of the road. It then heads northeast cross country for almost two miles, then follows Willard Road (CTH GG) east on the north side



Figure 1. Approximate location of project area in Wisconsin.





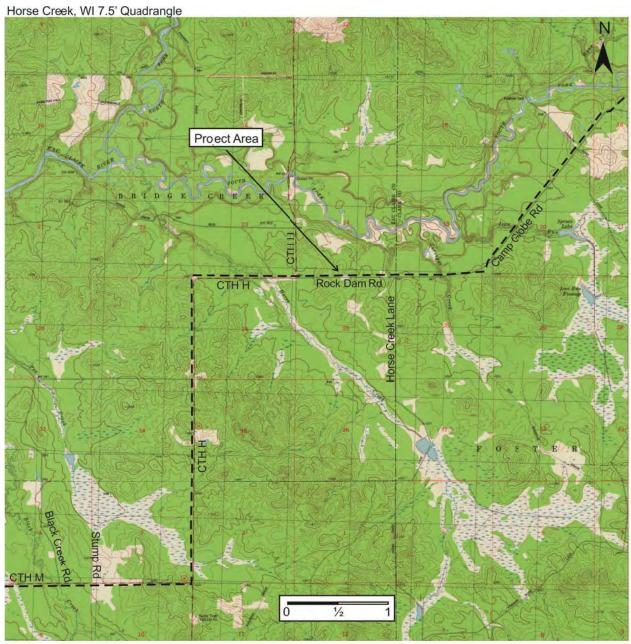


Figure 4. East central portion of project area.



Figure 5. Eastern end of project area near the Willard Tap.

of the road for two miles where it ends at the intersection of Willard Road (CTH GG) and CTH M at the Willard Tap.

The project area lies in the Western Uplands Geographic Province. The Western Uplands is a thoroughly-dissected upland and is considered rough, highland region. This regions' strongest topographic features are the great trenches or gorges of the Mississippi and Wisconsin rivers and numerous tributaries. The topography consists of deeply dissected plateaus with narrow, deeply incised, dendritic drainages (Martin 1965).

The bedrock geology of the project area is part of the Cambrian system. The bedrock of consists sandstone with some dolomite and shale which is undivided, including Trempealeau, Tunnel City and Elk Mound groups. These are sedimentary rocks of Paleozoic age which formed about 500 million years ago. The depth to bedrock is approximately 0 to 15 meters on the ridge tops. This depth generally has good to excellent outcrops, particularly on hillsides, road cuts, and river valleys (Mudrey et al. 1982). The original vegetation cover of the project area would have included: mixed deciduous forest, consisting of oak (white oak, black oak, and bur oak) and oak openings (bur oak, white oak, and black oak); and, mixed coniferous-deciduous forest (white pine and red pine); and, brush (Finley 1976). As a result of the long distance of the project, it crosses through a variety of soil types (Natural Resource Conservation Service 2004), which are presented in Table 1.

#### Table 1. Soil types within the project area.

Alluvial land, wet

Arenzville silt loam, 0 to 3 percent slopes

Arland sandy loam, 2 to 6 percent slopes and 6 to 12 percent slopes, eroded

Billett fine sandy loam, 2 to 6 percent slopes and 6 to 12 percent slopes, eroded

Billett sandy loam, 1 to 6 percent slopes and 6 to 12 percent slopes, eroded

Bilson sandy loam, 1 to 6 percent slopes

Bilson-Elevasil sandy loams, 6 to 12 percent slopes, eroded

Bilson-Silverhill sandy loams, 1 to 6 percent slopes

Boone-Elevasil complex, 15 to 50 percent slopes

Boone-Plainbo complex, 6 to 12 percent slopes and 12 to 45 percent slopes

Dawsil mucky peat, 0 to 1 percent slopes

Dickinson fine sandy loam, 2 o 6 percent slopes

Eauclaire loamy sand, 1 to 6 percent slopes

Eleva sandy loam, 6 to 12 percent slopes, eroded, and 12 to 20 percent slopes, eroded

Elevasil sandy loam, 2 to 6 percent slopes and 6 to 12 percent slopes, moderately eroded

Elkmound loam, 12 to 20 percent slopes, eroded, and 20 to 45 percent slopes

Elm Lake loamy sand

Fairchild-Elm Lake complex, 0 to 3 percent slopes

Fairchild and Merrillan soils, 0 to 2 percent slopes and 2 to 6 percent slopes

Friendship loamy sand, 0 to 3 percent slopes

Gale silt loam, 2 to 6 percent slopes, 6 to 12 percent slopes, eroded, 12 to 20 percent

slopes, eroded, and, 20 to 30 percent slopes

Gosil loamy sand, 1 to 6 percent slopes

Gotham loamy fine sand 0 to 2 percent slopes, 2 to 6 percent slopes; and, 6 to 12 percent slopes

Gotham loamy sand, 1 to 6 percent slopes, and 6 to 12 percent slopes, eroded

Hixton silt loam, 6 to 12 percent slopes, moderately eroded

Hixton loam, 2 to 6 percent slopes, eroded, and 30 to 45 percent slopes

Houghton muck

Impact sand, 0 to 3 percent slopes

Kato loam, sandy loam variant

Kert loam, 0 to 3 percent slopes

La Farge silt loam, 2 to 6 percent slopes

Ludington sand, 1 to 6 percent slopes

Ludington and Humbird soils, 2 to 6 percent slopes and 6 to 12 percent slopes

Markey muck

Menahga sand, 1 to 6 percent slopes

Meridian loam, 0 to 2 percent slopes; 2 to 6 percent slopes; and, 6 to 12 percent slopes

Newson loamy sand

Northfield silt loam, 20 to 30 percent slopes, eroded

Otter silt loam, overwash

Palms muck

Pelkie-Winterfield loamy fine sands, 0 to 3 percent slopes

Pillot silt loam, 2 to 6 percent slopes

Plainfield loamy sand, 1 to 6 percent slopes
Ponycreek-Dawsil complex, 0 to 2 percent slopes
Rockdam sand, 0 to 3 percent slopes
Seaton silt loam, moderately well drained 2 to 6 percent slopes and 6 to 12 percent slopes, eroded
Simescreek sand, 0 to 3 percent slopes
Sparta loamy sand, mottled subsoil variant, 0 to 3 percent slopes
Tarr sand, 1 to 6 percent slopes
Tint sand, 0 to 3 percent slopes
Veedum silt loam
Vesper loam

#### **CULTURAL CONTEXT**

With the retreat of the last glaciers at the end of the Pleistocene epoch came the first Native American occupation of the Mississippi River valley. These migratory bands of hunters and gatherers, or Paleoindians, were present in this area from approximately 11,500 to 9500 years before present (B.P.). This prehistoric Native American population represents the earliest verified human presence in the Americas. Paleoindians moved in small mobile hunting bands that followed the Pleistocene megafauna, including mastodon, mammoth, and extinct forms of giant bison. Early Paleoindian fluted point varieties in the Upper Mississippi River valley include Clovis, Gainey, and Folsom. Late Paleoindians used unfluted spear tips of the Cody Complex, a northern plains manifestation that focused on hunting, to adapt to the extinction of most megafauna species by 10,000 years ago (Theler and Boszhardt 2003).

The longest of the prehistoric Native American cultures is the Archaic Tradition (9500-2500 B.P.) The extinction of megafauna by changes in climate and possible overexploitation by the Paleoindians forced Archaic people to seek a new type of subsistence. In the early part of this tradition, smaller forms of bison became the main staple meat supply and by the latter part of the time period, gathering and foraging in the forest became the focus of subsistence procurement strategies. Nuts especially were focused on during gathering and foraging. There was increased territoriality, development of intergroup trading networks, local differentiation in artifacts styles, and the use of communal cemeteries (Theler and Boszhardt 2003).

The Woodland Tradition (2500-900 B.P.) represented a more sedentary lifestyle including the practice of horticulture, the construction of earthen burial mounds, and the introduction of grit or sand tempered ceramic containers. Early Woodland lifestyles were similar to that of Archaic people, but with the innovation of ceramics. Middle Woodland is characterized by the Hopewell Interaction Sphere in which long distance trade flourished. This period is noted for refined artworks, complex mortuary programs, and extensive trade networks. The Late Woodland period is distinguished by distinctive regional styles, and animal shaped burial mounds were constructed during this time period (Theler and Boszhardt 2003).

#### PREVIOUS INVESTIGATIONS

According to the Wisconsin Historic Preservation Database (WHPD), there are eleven previously recorded sites within one mile of the project area (Table 2 and Figures 6, 7, and 8) including prehistoric isolated finds, campsite/villages, and, historic Euro-American cemetery/burials. All of these sites are at least a quarter mile from the project except 47EC86. 47EC86, a prehistoric lithic scatter named Polk, is located across from the current project area, but is not within the project area (see Figure 8). Pole locations located near this site did not recover any cultural material.

Table 2. Previously recorded sites within one mile of the project.

Site Number	Site Name	Site Type	Cultural Affiliation	Relationship to Project
BTR33	Unnamed Cemetery	Cemetery/Burial		Within One Mile
TR37	Hangartner I	Campsite/Village		Within One Mile
TR38	Hangartner II	Campsite/Village		Within One Mile
TR39	T. Olson	Campsite/Village		Within One Mile
TR47	Unnamed Site	Campsite/Village	Unknown Prehistoric	Within One Mile
BEC22	St. John Hay Creek Cemetery	Cemetery/Burial	Historic Euro-American	Within One Mile
EC4	Unnamed Site	Workshop Site Campsite/Village	Unknown	Within One Mile
EC50	Horse Creek Road	Lithic Scatter	Unknown Prehistoric	Within One Mile
EC64	Connelly	Isolated Finds	Unknown Prehistoric	Within One Mile
EC77	Lupine Lookout	Campsite/Village	Unknown Prehistoric	Within One Mile
EC86	Polk	Lithic Scatter	Unknown Prehistoric	Within One Mile

According to the WHPD, several previous archaeological surveys have been conducted within one mile of the project. These include: a 1979 Phase I survey of the proposed wastewater treatment facility in Osseo (SHSW#79-0106); a 1980 Phase I survey of a proposed substation at Fairchild (SHSW#80-0512); a 1987 and 1988 Phase I survey of a pipeline from Minnesota to Milwaukee (SHSW#87-0054); a 1988 Phase I survey of proposed changes to the Horse Creek Bridge (SHSW#88-0957); a 1990 Phase I survey of sites in Central Wisconsin associated with the Wisconsin Air National Guard (SHSW#90-0194); a 1994 Phase I and II survey and investigations for a proposed wastewater treatment facility near Fairchild (SHSW#94-0833); a 1997 Phase I survey of a DPC substation and tapline near Osseo (SHSW#97-0712); a 2006 Phase I survey of USH 53 from STH 21 to Pigeon Falls (SHSW#06-0786); and, a 2008 Phase I survey of the proposed DPC Bridge Creek Substation addition and adjoining tap transmission line (SHSW#08-0900) (Twinde-Javner 2008). Additional surveys within one mile of the

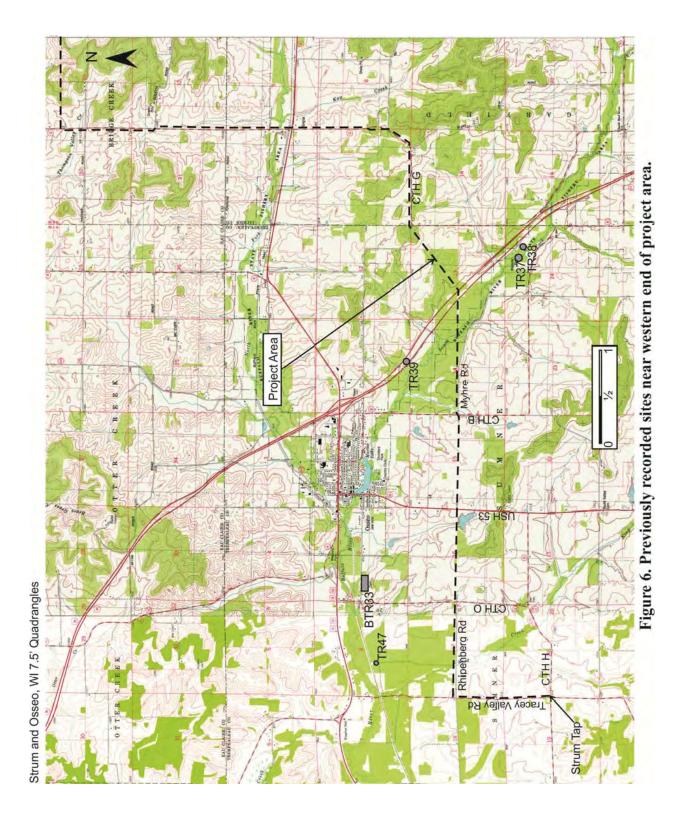




Figure 7. Previously recorded sites near west central portion of project area.

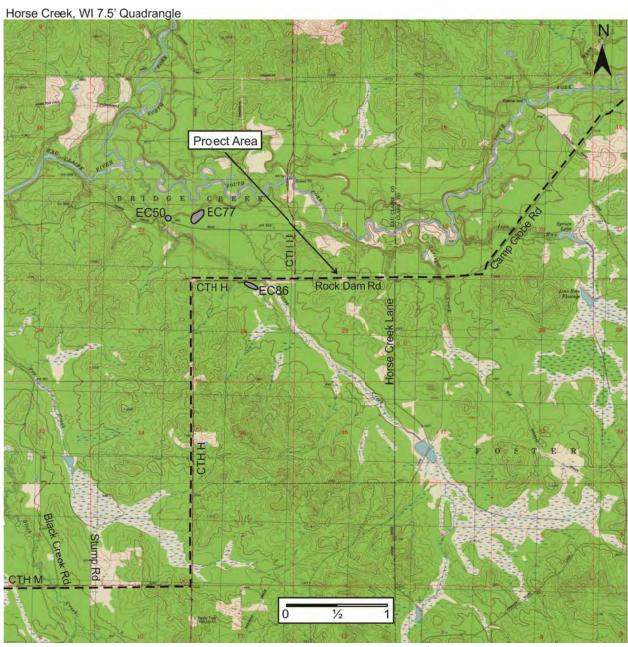


Figure 8. Previously recorded sites near east central portion of project area.

transmission line include: the Phase I survey of the southern portion of the DPC N-3 transmission line rebuild south of the Strum Tap surveyed in 2011 (Twinde-Javner and Straskowski 2011); and, the Phase I survey of a portion of the DPC N-423 transmission line and associated substation near Augusta surveyed in the spring of 2012 (Twinde-Javner 2012). These surveys likely do not show up in the WHPD database since they were conducted at staked pole locations only.

#### METHODOLOGY

The field methods used during the project conform to those outlined by the *Guidelines for Public Archaeology in Wisconsin* (WAS 2012). This project had new pole locations staked and since the pole locations would be the only ground disturbance, these were the only areas surveyed. In areas of less than 10% visibility, shovel testing was employed. All soil was screened through a 1/4 inch mesh. Pedestrian survey was employed in current agricultural fields. In general surface visibility within plowed fields was between 60% and 80%. Areas with steep slope, marsh, previous disturbance by road construction, or disturbance by utilities were not surveyed. All field notes and other documentation will be stored at MVAC.



Figure 9. Example of area pedestrian surveyed facing north along Tracey Valley Road near Strum Tap.



Figure 10. Example of area pedestrian surveyed between CTH M and Zank Road (view facing east).



Figure 11. Example of area shovel tested facing east towards I-94 from Myhre Road.



Figure 12. Example of area shovel tested along ATV trail heading cross country from Camp Globe Road towards Willard Road (view facing northeast).

#### RESULTS AND RECOMMENDATIONS

In October 2012, MVAC personnel conducted a Phase I archaeological survey of proposed changes to approximately thirty three miles of the existing N-3 transmission line located in Trempealeau, Jackson, Eau Claire, and Clark counties, Wisconsin. The portion of the N-3 transmission line surveyed in 2012 was from the Strum Tap, located southwest of Osseo, to the Willard Tap, northeast of Rock Dam Lake. The exact pole locations were staked prior to the archaeological survey, therefore the staked pole locations were the only areas tested. One previously recorded site, is located, but is not within the project area. All of the other previously recorded sites are located at least a quarter mile or more from the transmission line. No previously recorded sites are within the project area and no new archaeological sites were discovered. Therefore, no further archaeological work is recommended.

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- 2008 A Phase I Archaeological Survey of the Proposed Bridge Creek Substation Addition and N-3 Transmission Line Rebuild, Eau Claire County, Wisconsin. Reports of Investigation Number 740. Mississippi Valley Archaeology Center, University of Wisconsin-La Crosse.
- 2012 Phase I Archaeological Survey of Two Miles of the N-423 Transmission Line and Associated Substation near Augusta, Eau Claire County, Wisconsin. Reports of Investigation Number 919. Mississippi Valley Archaeology Center, University of Wisconsin-La Crosse.

#### Twinde-Javner, Vicki L. and Michael Straskowski

2011 Phase I Archaeological Survey of a Portion of the N-3 Transmission Line, Independence Tap to Strum Tap, Trempealeau County, Wisconsin. Reports of Investigation Number 906. Mississippi Valley Archaeology Center, University of Wisconsin-La Crosse.

#### WAS - Wisconsin Archeological Survey Guideline Committee

2012 Guide for Public Archaeology in Wisconsin, compiled by M. Dudzik, J. Tiffany, and K. Stevenson, edited by K. Stevenson. Wisconsin Archeological Survey. Madison, Wisconsin.

#### **Appendix 1: Public Land Permits**

Name/Organization/Contact Vicki Twinds	e-Javner, MVA	C Telephon	608-785-6475
Address 1720 State Street	City La Cr	0839 State W	7 Sin Code 54601
B-mail Address vtwinde-javner@uwl	ax.edu	FAX# 608-78	5-6474
Institutional Affiliation Mississippi Valley Archae			
Location of work: Highway: Hwy/Rd	(C-140)	Count	у
Project Begin:		Project End:	
Other Projects: County Trempeleau Civil	Town Sumner	Town 24 N	Range 07W Section 14
Quarter Sections (minimum 3) S1/2 SW1/		S1/2 SE1/4	NE1/4
Name of Park, Wildlife Area Osece Parchia School For	Site Name:		Site Number
Type of fieldwork:   Phase I/Survey	Phase 11/Testing	D Phase III/Excar	vation © Other
Purpose of the fieldwork; K Federal Compl	lance & State I	Compliance H	Princetion - Other
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Please contact Sherman Banker at (508) 264-6507 or by e-mail at sherman hanker@wisconsinalstory.org

# WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2012 REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. § 44.47 Wisconsin Historical Society

Name/Organization/Contact Vicki Twinde-Javner, MVAC Telephone 608-785-6475
Address 1725 State Street City La Crosse State WI Zip Code 54601
B-mail Address vtwinde-javner@uwlax.edu FAX#608-785-6474
Institutional Affiliation Mississippi Valley Archaeology Center Occupation Archaeologist
Location of work: Highway: Hwy/RdCounty
Project Begin:Project Bud:
Project Begin: Project Bad: Pro
Quarter Sections (minimum 3)
Name of Park, Wildlife Area Clark County Forest Site Name: Site Number
Type of fieldwork: Phase I/Survey   Phase II/Testing   Phase III/Excavation   Other
urpose of the fieldwork:
eriod of field work beginning on 10/30/2012 and ending on 12/30/2012
What institution will curate recovered artifacts, notes, and records? MVAC Curation agreement must be on file with WHS)
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Maps and/or Letters of explanation can accompany this application
andowner or custodian name (print) Clark County Forest Phone 715-743-5140
//
Ignature of Landowner /ort / 2010 Works   Date   10/29/17
TO NOT WRITE BELOW THE TIME
ernit Approved
PLP # 12 - 156  TO NOT WRITE BELOW THIS INE  Date 2 0 / 2  Shin H. Broileann State Archaeologist Wisconsin Historical Society FAX: 608-264-6504 / PH 608-264-6496
emit Approved  Date 2/0//2  John H. Broilenn. State Archaeologist Wisconsin Historical Society

This permit does NOT cover work within eataloged and uncataloged burial sites under Wis. § 157:70.

This permit does NOT cover removal of human remains under Wis. § 157:70.

Please contact Sherman Banker at (608) 264-6597 or by e-mail at sherman.banker@wisconsinhistory.org

### BIBLIOGRAPHY OF ARCHAEOLOGICAL REPORT FORM

WHS/SHSW # COUNTY Trempealeau, Jackson, Eau Claire, and Clark
AUTHORS: Twinde-Javner, Vicki L.
REPORT TITLE: <u>Phase I Archaeological Survey of Approximately Thirty Three Miles of the Proposed N-3 Transmission Line Rebuild, Strum Tap to Willard Tap, Located in Trempealeau, Jackson, Eau Claire, and Clark Counties, Wisconsin</u>
DATE OF REPORT (MONTH AND YEAR): November 2012
SERIES/NUMBER: Reports of Investigations No. 942
PLACE OF PUBLICATION: Mississippi Valley Archaeology Center
LOCATIONAL INFORMATION [LEGAL DESCRIPTION OF SURVEY AREA (T-R-S)] Sections 12, 13, 14, 15, 16, 17, and 20 of Township 24 North, Range 7 West; Sections 5, 7, and 8 of Township 24 North, Range 6 West; Sections 24, 25, 26, 27, 28, 29, 30, 31, and 32 of Township 25 North, Range 6 West; Sections 3, 5, 6, 7, 8, 9, 10, 18, and 19 of Township 25 North, Range 5 West; Sections 23, 24, 27, and 34 of Township 26 North, Range 5 West; and Sections 10, 11, 12, 15, 16, 17, 19, and 20 of Township 26 North, Range 4 West in Clark County  U.S.G.S. QUAD MAP(S): Strum, Osseo, Price, Augusta, Horse Creek, and Rock Dam Lake, Wisconsin 7.5' Quadrangles  SITE(S) INVESTIGATED: N/A
ACRES INVESTIGATED: 1 meter wide by 33 miles long - shovel tests or pedestrian survey at proposed pole locations only - see abstract for explanation.  AGENCY #
ABSTRACT:   ☑ Included in report  ☐ Written in space below

Office of the State Archaeologist	BAR #
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#### Phase I Archaeological Survey of Approximately Twenty-Five Miles of the Proposed N-3 Transmission Line Rebuild, Willard Tap to LublinTap, Located in Clark County, Wisconsin

Report Prepared for: Dairyland Power Cooperative 3200 East Avenue South P.O. Box 817 La Crosse, WI 54602

> Report Prepared by: Vicki L. Twinde-Javner

> Principal Investigator: Vicki L. Twinde-Javner

Mississippi Valley Archaeology Center University of Wisconsin-La Crosse

Reports of Investigations No. 956

June 2013



#### **ABSTRACT**

In May and June 2013, personnel from the Mississippi Valley Archaeology Center (MVAC) conducted a Phase I archaeological survey for Dairyland Power Cooperative (DPC) of a portion of the N-3 transmission line rebuild located in Clark County, Wisconsin. The portion surveyed by MVAC in 2013 was from the Willard Tap, located northeast of Rock Dam Lake, to the Lublin Tap, located south of Lublin and northeast of Thorp, and was approximately twenty-five miles long. The wires for the one to two foot round poles will be overhead and existing roads near the line will be used to access the proposed pole locations. Since the only ground disturbance will be at the new pole locations, and exact pole locations were staked by DPC prior to the archaeological survey, only the new pole locations were surveyed. Both pedestrian survey and shovel testing were utilized. No archaeological sites were discovered and no previously recorded sites overlap the project area. Therefore, no further archaeological work is recommended.

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#### INTRODUCTION

In May and June 2013, personnel from the Mississippi Valley Archaeology Center (MVAC) conducted a Phase I archaeological survey for Dairyland Power Cooperative (DPC) of approximately twenty-five miles of the N-3 transmission line rebuild from the Willard Tap to the Lublin Tap, located in Clark County, Wisconsin (Figure 1). The wires for the one to two foot round poles will be overhead and existing roads near the line will be used to access the proposed pole locations. These poles will be placed approximately 350 to 600 feet apart, depending on the terrain and vegetation. Since the only ground disturbance for the project will be at the new pole locations, and the exact pole locations were staked by DPC prior to the archaeological survey, only the new pole locations were surveyed. Both pedestrian survey and shovel testing were utilized. Most of the project was surveyed in May, but a few miles of the project that were too wet to survey in May, were then surveyed in June.

#### **ENVIRONMENTAL CONTEXT**

The transmission line is located in: Sections 1 and 12 of Township 26 North, Range 4 West; Sections 24, 25, and 36 of Township 27 North, Range 4 West; Sections 6, 7, 18, and 19 of Township 27 North, Range 3 West; Sections 4, 9, 10, 16, 21, 27, 28, 31, 32, 33, and 34 of Township 28 North, Range 3 West; and, Sections 2, 3, 4, 9, 16, 21, 22, 27, 28, and 33 of Township 29 North, Range 3 West (Figures 2, 3, and 4). The project crosses both public and private land, and an archaeological public land permit was obtained from the Wisconsin Historical Society prior to the survey for the public land (Clark County Forest) (Appendix 1). The entire project was located along existing roads, and was located in grassy areas, pastures, residential yards, and plowed fields.

Starting at the southern end at the Willard Tap, the project starts northwest of the intersection of CTH M and County Road GG. It follows CTH M north for approximately 8 miles crossing from the west side to the east side of the road. At the intersection of CTH M and Popple River Road, the project turns east and is located on the north side of Popple River Road for approximately three miles. It then turns north along Bachelor's Avenue for approximately twelve miles, switching back and forth from the west side to the east side of the road in various places. It then turns east for two miles and is located on the south side of County Line Road. It terminates at the northern end at the existing Lublin Substation located southeast of the intersection of Town Line Road and Sterling Avenue.

Most of the project area lies in the Western Uplands Geographic Province. The Western Uplands is a thoroughly-dissected upland and is considered rough, highland region. This regions' strongest topographic features are the great trenches or gorges of the Mississippi and Wisconsin rivers and numerous tributaries. The topography consists of deeply dissected plateaus with narrow, deeply incised, dendritic drainages. The northern portion of the project area lies in the Northern Highlands Geographic Province. At one time in this province, there was lofty and deep valleys in Northern Wisconsin, but weather, wind, and streams wore them down to a low, undulating plain with occasional hills, called a penneplain. The two different types of topography in this area include upland plains and several types of ridges (Martin 1965).

The bedrock geology of the project area is part of the Cambrian system. The bedrock of consists sandstone with some dolomite and shale which is undivided, including Trempealeau,



Figure 1. Approximate location of project area in Wisconsin.

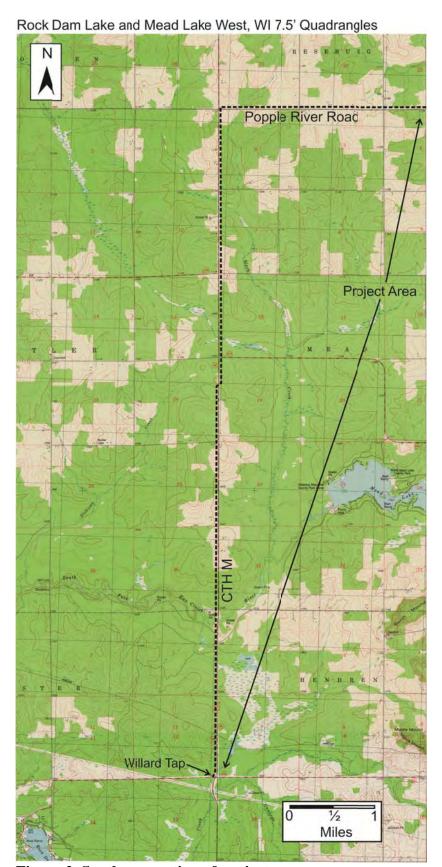


Figure 2. Southern portion of project area.



Figure 3. Central portion of project area.

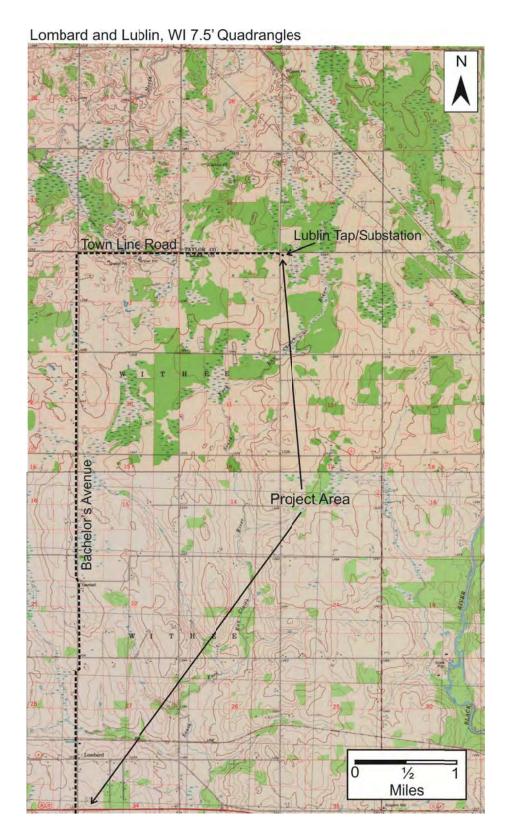


Figure 4. Northern portion of project area.

Tunnel City and Elk Mound groups. These are sedimentary rocks of Paleozoic age which formed about 500 million years ago. The depth to bedrock for most of the project is approximately 0 to 15 meters on the ridge tops. This depth generally has good to excellent outcrops, particularly on hillsides, road cuts, and river valleys. The depth to bedrock at the northern end of the project is 15-30 meters. This results in poor to no outcrop with some outcrops occurring in isolated exposures in river valleys and bedrock highs (Mudrey et al. 1982). The original vegetation cover of the project area would have been mixed coniferous and deciduous forest including: hemlock, sugar maple, yellow birch, white pine and red pine (Finley 1976). As a result of the long distance of the project, it crosses through a variety of soil types (Natural Resource Conservation Service 2004), which are presented in Table 1.

#### Table 1. Soil types within the project area.

Almena silt loam, 0 to 3 percent slopes

Auburndale silt loam, 0 to 2 percent slopes

Barronett silt loam, 0 to 2 percent slopes

Capitola-Marshfield-Veedum complex, 0 to 2 percent slopes

Dawsil mucky peat, 0 to 1 percent slopes

Eauclaire loamy sand, 1 to 6 percent slopes

Fairchild-Elm Lake complex, 0 to 3 percent slopes

Fallcreek-Merrillan complex, 0 to 3 percent slopes

Flambeau loam, 1 to 6 percent slopes

Flambeau sandy loam, 1 to 6 percent slopes

Flambeau-Humbird complex, 1 to 6 percent slopes

Flambeau-Humbird sandy loams, 6 to 12 percent slopes

Freeon silt loam, 2 to 6 percent slopes, very stony

Hiles silt loam, 1 to 6 percent slopes

Humbird fine sandy loam, 1 to 6 percent slopes

Humbird fine sandy loam, 6 to 12 percent slopes

Ironrun-Ponycreek complex, 0 to 3 percent slopes

Loxley, Beseman, and Dawson peats 0 to 1 percent slopes

Loyal silt loam, 1 to 6 percent slopes

Loyal silt loam, 6 to 12 percent slopes

Loyal-Hiles silt loams, 6 to 12 percent slopes

Ludington sand, 1 to 6 percent slopes

Ludington sand, 6 to 12 percent slopes

Ludington-Fairchild sands, 0 to 6 percent slopes

Magnor silt loam, 0 to 4 percent slopes, very stony

Maplehurst silt loam, 0 to 3 percent slopes

Markey-Newson mucks, 0 to 2 percent slopes

Menahga loamy sand, 0 to 6 percent slopes

Merrillan fine sandy loam, 0 to 3 percent slopes

Moppet-Fordum complex, 0 to 3 percent slopes

Newood-Magnor-Cathro complex, 0 to 15 percent slopes, very stony

Oesterle loam, 0 to 3 percent slopes

Ponycreek-Dawsil complex, 0 to 2 percent slopes

Rockdam sand, 0 to 3 percent slopes

Spencer silt loam, 2 to 6 percent slopes Veedum silt loam, 0 to 2 percent slopes Withee silt loam, 0 to 3 percent slopes Withee-Kert silt loams, 0 to 3 percent slopes

#### **CULTURAL CONTEXT**

With the retreat of the last glaciers at the end of the Pleistocene epoch came the first Native American occupation of the Mississippi River valley. These migratory bands of hunters and gatherers, or Paleoindians, were present in this area from approximately 11,500 to 9500 years before present (B.P.). This prehistoric Native American population represents the earliest verified human presence in the Americas. Paleoindians moved in small mobile hunting bands that followed the Pleistocene megafauna, including mastodon, mammoth, and extinct forms of giant bison. Early Paleoindian fluted point varieties in the Upper Mississippi River valley include Clovis, Gainey, and Folsom. Late Paleoindians used unfluted spear tips of the Cody Complex, a northern plains manifestation that focused on hunting, to adapt to the extinction of most megafauna species by 10,000 years ago (Theler and Boszhardt 2003).

The longest of the prehistoric Native American cultures is the Archaic Tradition (9500-2500 B.P.) The extinction of megafauna by changes in climate and possible overexploitation by the Paleoindians forced Archaic people to seek a new type of subsistence. In the early part of this tradition, smaller forms of bison became the main staple meat supply and by the latter part of the time period, gathering and foraging in the forest became the focus of subsistence procurement strategies. Nuts especially were focused on during gathering and foraging. There was increased territoriality, development of intergroup trading networks, local differentiation in artifacts styles, and the use of communal cemeteries (Theler and Boszhardt 2003).

The Woodland Tradition (2500-900 B.P.) represented a more sedentary lifestyle including the practice of horticulture, the construction of earthen burial mounds, and the introduction of grit or sand tempered ceramic containers. Early Woodland lifestyles were similar to that of Archaic people, but with the innovation of ceramics. Middle Woodland is characterized by the Hopewell Interaction Sphere in which long distance trade flourished. This period is noted for refined artworks, complex mortuary programs, and extensive trade networks. The Late Woodland period is distinguished by distinctive regional styles, and animal shaped burial mounds were constructed during this time period (Theler and Boszhardt 2003).

#### PREVIOUS INVESTIGATIONS

According to the Wisconsin Historic Preservation Database (WHPD), there are two previously recorded sites within one mile of the project area. Both of these sites are located outside the project area.

(Figure 5). This historic

dwelling and/or farmstead is located

is an unnamed and unaffiliated cemetery/burial located

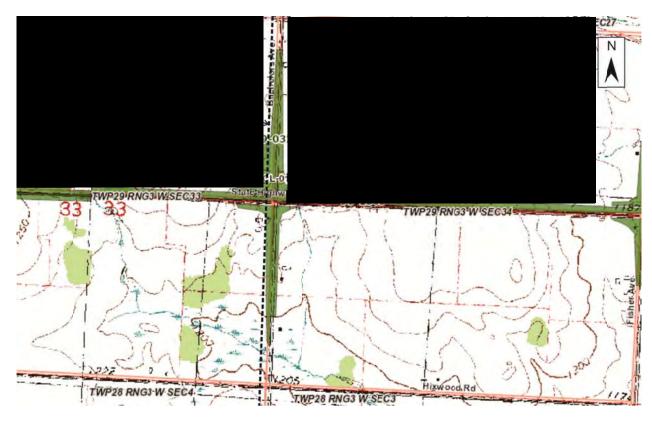


Figure 5. WHPD screenshot of the project area in relationship to 47CL117.

According to the WHPD, several previous archaeological surveys have been conducted within one mile of the project. These include: at least three surveys located near the Bachelor's Avenue and STH 29/73 intersection for the STH 29 corridor and associated intersections (SHSW#90-1665; SHSW#94-5532; and, SHSW#09-0323) (see Figure 5); one survey for the Lakehead pipeline (SHSW#96-0697); and two surveys in which the information has been lost (SHSW#94-5533 and SHSW#94-5536). An additional survey within one mile of the project area includes the Phase I survey approximately thirty three miles of the DPC N-3 transmission line rebuild located west of the Willard Tap (at the southern end of the project) which was surveyed in 2012 (Twinde-Javner 2012). This survey likely does not show up in the WHPD database since it was conducted at staked pole locations only.

#### **METHODOLOGY**

The field methods used during the project conform to those outlined by the *Guidelines for Public Archaeology in Wisconsin* (WAS 2012). This project had new pole locations staked prior to the survey, and since the pole locations would be the only ground disturbance, these were the only areas surveyed. In areas of less than 10% visibility, shovel testing was employed. All soil was screened through a 1/4 inch mesh. Pedestrian survey was employed in current agricultural



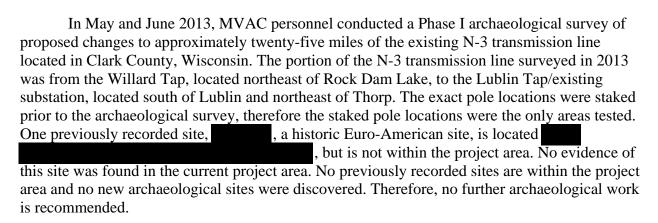
Figure 6. Example of area shovel tested along project area (project area under existing transmission in photo line). View facing north. CTH M to left in photo.



Figure 7. Example of area pedestrian surveyed along project area (project area under existing transmission line in photo). View facing north. Bachelor's Avenue to left in photo.

fields. In general, surface visibility within plowed fields was between 75% and 90% at the time of the survey. Areas with steep slope, marsh, standing water, previous disturbance by road construction, or disturbance by utilities were not surveyed. All field notes and other documentation will be stored at MVAC.

#### RESULTS AND RECOMMENDATIONS



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#### WAS - Wisconsin Archeological Survey Guideline Committee

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#### **Appendix 1: Public Land Permit**

### WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2013 REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. \$ 44.47 Wisconsin Historical Society

Name/Organization/Contact Vicki Twinde-Jav	ner MVAC	Telèpho	tie 608-785-647	<b>'5</b>
Address 1725 State St.	City La Cr	osse State	MI Zip Co	
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Signature of Archaeologist Uclu A	winds-4	einez	Dat	4/3/2013
Print name Vicki L. Twinde-Javner				continuation sheet or sec attachments
Maps and/or Letters of Landowner or quetodian name (print)	of explanation co unty Forest		s application 715-743-51	40
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PLP# 13.018 State Aich Wisconsin FAX: 608	decologist n Historical Socie 1-264-6504 / PH		ork	
Conditions:  1) Two copies of the final report must be 2) All artifacts, notes and records must	o submitted to the curated in an	he Division of III; appropriate facili	storic Preservation ty that is staffed b	-Public History, y trained personnel,
This permit does NOT cover work w	vithin cataloged a	nd uncataloged by human remains ut	rial sites under W	ls. § 157,70 .

Please contact Shorman Banker at (608) 264-6507 or by e-mail at shorman banker@wisconsinhistory.org

#### BIBLIOGRAPHY OF ARCHAEOLOGICAL REPORT FORM

WHS/SHSW # COUNTY <u>Clark</u>
AUTHORS: Twinde-Javner, Vicki L.
REPORT TITLE: Phase I Archaeological Survey of Approximately Twenty-Five Miles of the Proposed N-3 Transmission Line Rebuild, Willard Tap to LublinTap, Located in Clark County, Wisconsin
DATE OF REPORT (MONTH AND YEAR): <u>June 2013</u>
SERIES/NUMBER: Reports of Investigations No. 956
PLACE OF PUBLICATION: Mississippi Valley Archaeology Center
LOCATIONAL INFORMATION [LEGAL DESCRIPTION OF SURVEY AREA (T-R-S)]  Sections 1 and 12 of Township 26 North, Range 4 West; Sections 24, 25, and 36 of Township 27  North, Range 4 West; Sections 6, 7, 18, and 19 of Township 27 North, Range 3 West; Sections 4, 9, 10, 16, 21, 27, 28, 31, 32, 33, 34 of Township 28 North, Range 3 West; and, Sections 2, 3, 4, 9, 16, 21, 22, 27, 28, and 33 of Township 29 North, Range 3 West  U.S.G.S. QUAD MAP(S): Rock Dam Lake, Mead Lake West, Lombard, and Lublin, Wisconsin 7.5' Quadrangles  SITE(S) INVESTIGATED: N/A  ACRES INVESTIGATED: 1 meter wide by 25 miles long - shovel tests or pedestrian survey at proposed pole locations only - see abstract for explanation.  AGENCY #
INVESTIGATION TECHNIQUES CMPLETED (Check all that apply.)  Avocational Survey Chance Encounter Controlled Surface Collection Faunal Analysis Floral Analysis Geomorphology Historical Research Interview/Informant Land Use History Literature Background Research Major Excavation Mechanical Stripping Monitoring Osteological Analysis Phase I-Surface Survey Phase II Phase II-Corridor Only Phase III Phase III-Corridor Only Records/Background Records/Background (Pred. Model) Remote Sensing Shovel Testing/Probing (Inten) Soil Core Surface Survey (Intensive) Test Excavation Traditional Knowledge Vandalism Walk Over (Reconnaissance) Unknown
ABSTRACT:
Office of the State Archaeologist RAD #

## Appendix F: Photo Log



Photo 1. View from Starks Road looking north at the Project ROW along the east side of County Road M.



Photo 2. View from Starks Road looking south at the Project ROW along the east side of County Road M.

Photographer: Lori Davidson Date Picture Taken: 8/10/2012

Project Name: Strum-Lublin 69kV Transmission Line Rebuild Project



Photo 3. View from Stump Road looking west at the Project ROW along the south side of County Road M.



Photo 4. View from Kempton Road approximately 0.7 mile north of County Road RR looking northeast at the Project ROW.

Photographer: Lori Davidson Date Picture Taken: 8/10/2012

Project Name: Strum-Lublin 69kV Transmission Line Rebuild Project



Photo 5. View of Kempton Road north of US212 near Bridge Creek Substation looking south.

Photographer: Lori Davidson Date Picture Taken: 8/10/2012

Appendix G:

The Wisconsin Statewide Karner Blue Butterfly Habitat Conservation Plan Guidance and Construction, Maintenance, Repair, and Management Guidelines

# Wisconsin Statewide Karner Blue Butterfly Habitat Conservation Plan

#### Updated for Application to Renew Federal Fish and Wildlife Permit TE010064-5

May 27, 2010

**Contact:** HCP Coordinator

Wisconsin Department of Natural Resources • 101 S. Webster Street • Madison, WI 53707 (608) 261-6451 or (877) 452-7637 (toll free)
PUBL-SS-947 2010 Rev.

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<ul> <li>C. History of Wisconsin Karner Blue Butterfly HCP Partnership</li> <li>- Articles of Partnership</li> <li>- Partnership Anti-Trust Policy</li> <li>- The Five Point Plan for Continuous Improvement</li> </ul>
<ul> <li>D. Participation Plan and Landowner Inclusion Strategy Supporting Information</li> <li>Communication Plan</li> <li>Participation Decision flow chart</li> <li>Inclusion fees</li> <li>Inclusion application</li> <li>SHCA templates</li> </ul>
<ul> <li>E. HCP User's Guide</li> <li>- User's Guide Overview</li> <li>- Management Guidelines and Protocols for Karner Blue Butterflies</li> <li>- Monitoring Guidelines and Survey Protocols</li> <li>- Administrative Procedures</li> </ul>
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70. 71. 71. 73.

75.

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- Table 3.11. Acreage in the HPR Included in the HCP and Subject to Monitoring, Management and Reporting (as Identified by Individual Partners)
- Table 3.12. Examples of Activities Included in Each Management Category
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#### **Chapter 1. Introduction**

This chapter explains the need for updated and streamlining the Wisconsin Statewide Karner Blue Butterfly Habitat Conservation Plan (HCP) and the improvements that distinguish this updated HCP from the original HCP.

#### Overview

- Relationship of Updated HCP to Original HCP
- Reasons for Updating the Original HCP and HCP User's Guide
- Voluntary (Unregulated) Landowner Category Update
- Role of Karner Blue Recovery in the Updated HCP

#### Adaptive Management in Action

- Major change #1 Monitoring Strategy Revisited
- Major change #2 Guidelines and Protocols Validated and Reorganized
- Major change #3 Karner Blue High Potential Range Gets a Scientific Adjustment
- Adaptive Management Shifts into High Gear The HCP's Five-Point Plan
- HCP Improvements: Revisions and Clarifications

#### A. Overview

**Relationship of Updated HCP to Original HCP**: This updated HCP is being submitted in 2009 with an application to the US. Fish and Wildlife Service (FWS) to renew the incidental take permit that has been in place since September 27, 1999. The HCP was updated to comprehensively incorporate numerous adaptive management and streamlining improvements that have been realized through experience, new data and research.

This HCP updates Chapter 2 of the original Karner Blue Butterfly Habitat Conservation Plan and Environmental Impact Statement (EIS) (March 2000) (WDNR 2000); Chapter 2 described the original HCP. This updated version of the HCP is a stand alone document and not part to a combined HCP/EIS as was the original HCP. Thus, this updated HCP replaces the original HCP and does not include the associated National Environmental Policy Act (NEPA) document. NEPA requirements for the updated HCP are being met through the development of an environmental assessment (EA) related to the FWS's issuance of an Endangered Species Act, as amended in 1973, (ESA) section 10 (a)(1)(B) incidental take permit for implementation of the HCP. The original HCP/EIS still functions as a reference document for the updated HCP as it provides background information on all the HCP features and includes greater detail on the rationale and vision of the HCP Partners in designing this unique program during the period of 1994-1999.

The original HCP was developed from 1994-1999. The HCP was written with 10 years in mind and based on less knowledge than is available in 2009. It was anticipated that the Kbb might be recovered within 10 years or be well on its way to recovery in that time frame. Due to the greater threats to the Kbb, particularly in the states east of Michigan, the prospect and timeframe of

range-wide recovery is much less certain in 2009 than it appeared to be in 1999. Therefore, this HCP reflects longer term planning.

The original 1999 HCP (WDNR 2000) included numerous conservation and operational strategies, many of which were considered unique at the time along with extensive discussion of the intentions and objectives for those strategies. The original HCP predated the FWS's addendum to the HCP Handbook also known as 5-point policy guidance (USFWS, 2000) (USFWS 2000) and the Final Karner Blue Butterfly Recovery Plan (USFWS 2003). Areas of the FWS's addendum to the HCP Handbook that were particularly helpful to updating the HCP related to setting biological goals, adaptive management and monitoring.

Reasons for Updating the Original HCP and HCP's User Guide: There was a need to consolidate the conservation measures found in the original HCP for easy access by partners to make accessing information for various HCP activities (e.g., land management activities, amendments and training) less cumbersome and confusing. The original HCP included conservation measures and direct instructions embedded in the body of the HCP, some of which were also duplicated in a few soup-to-nuts guidelines found in Appendix F of that HCP, e.g. Wildlife Management Guidelines for the Karner Blue Butterfly and Forest Management Guidelines. How well and to what degree these adopted methods would work for such a diverse and changing group of HCP Partners was somewhat unknown without actual experience implementing the conservation plan. With the Kbb waiting for partners' beneficial disturbance the plan was to move forward with implementing the HCP with its original set of conservation measures and a strong commitment to an active adaptive management approach which embraces continuous improvement.

As the original HCP was being implemented conservation measures were refined; separate standalone guidelines and protocols were developed, often leaving direct instructions in the body of the HCP obsolete. It was very cumbersome to amend guidelines and protocols woven throughout the body of the HCP. Therefore, in this updated version of the HCP, the direct instructions and detailed conservation measures have been removed from the text of the document, making this HCP more general, informative and to the point. The body of the updated HCP provides information HCP partners need to know to assist them in implementing their HCP commitments. All conservation measures and specific HCP implementation instructions have been consolidated for easy access and are now contained in the updated HCP User's Guide (Refer to Appendix E and the HCP webpage, http://dnr.wi.gov/forestry/karner/hcp-userguide.htm). The User's Guide is a compilation of all of the HCP's management and monitoring guidelines and protocols, the procedures the Wisconsin DNR (DNR) and IOC use in administrating the HCP, and operating procedures for Partners.

Voluntary (unregulated) Landowner Category Update: The Voluntary (unregulated) Landowner Category is one of the most innovative and unique strategies of the HCP. As part of their commitment to the HCP, partners pledged to encourage Karner blue conservation on private lands in the Karner blue range, including voluntary, non-partner participants, which they do via numerous education and outreach activities. The automatic permit coverage for the incidental take of Karner blues by landowners in the Voluntary Group, and partner outreach/education

campaign form the backbone of the voluntary participation strategy. The strategy is based on the expectation that many small landowners will contribute willingly to conservation programs when they are able to do so voluntarily, without legal requirements or mandates. The success of this innovative approached was assessed 3 years into implementation of the original HCP. The DNR's 3-Year Report to the Service on the effectiveness of outreach, education, and voluntary participation in the original HCP (WDNR 2003) highlights many activities conducted by private landowner to further the conservation of the Karner blue.

The voluntary participation strategy has proven to be a huge success. The approach has done more than expand the Karner blue range, it has helped to break down fears and misconceptions about endangered species law while building trust between private landowners and government agencies. Generally, Wisconsin landowners are no longer apprehensive about regulatory implications when they hear the name Karner blue. In fact, many landowners now embrace the idea of Karner blue conservation and are eager to find ways they can encourage Karner blue populations on their land.

While it is difficult to quantify the overall impact of the voluntary participation strategy, it is easy to recognize the products of this pressure-free inclusion campaign and the general awareness it has brought to the state. Partners have carried their stewardship message to millions of people, many of whom have gone on to pursue conservation and outreach efforts of their own. The evidence is all around us, from the freshly planted lupine patch in a Waupaca county backyard to the annual Karner Blue Butterfly Festival in Black River Falls. Karner blue conservation has turned into a Wisconsin phenomenon.

In addition, the HCP's Voluntary (unregulated) Landowner Category has extended partnerships between private landowners and various Federal land conservation programs including the FWS's Partners for Fish and Wildlife Program, the Natural Resource Conservation Service's Wildlife Habitat Improvement Program (WHIP) and the Farm Services Agency's State Acres for Wildlife Enhancement (SAFE) programs. The Voluntary (unregulated) Landowner Category continues to be a conservation strategy in the updated HCP (Refer to Chapter 5).

The Role of Karner Blue Recovery in the Updated HCP. One of the most significant realignments of conservation focus in this HCP is the voluntary assistance of HCP Partners in the Kbb recovery program. Based on the HCP Partners' assessment of the first ten years of implementing the HCP and the potential for an unanticipated long-term extension of the HCP program, they realized that to successfully conclude their conservation program, they must engage in recovery efforts for the species. This was not the philosophy in 1999 when several partners did not desire to assist with recovery of the butterfly but would help conserve the species.

The DNR is involved in the Karner Blue Butterfly Recovery Program by virtue of its agency mission. Therefore, the DNR's HCP commitments include assisting the FWS in recovery of the Kbb.

Managers of DNR properties, including those designated for recovery, receive their incidental take authority through the same Section 10(a) (1) (B) incidental take permit as the other partners.

Therefore, the DNR must implement the HCP and follow much the same conservation measures and reporting procedures as all partners. The additional recovery role of DNR includes taking measures to "feature and enhance" Kbb habitat on DNR recovery properties and to implement, in some cases, enhanced conservation and habitat restoration practices that go above and beyond managing with consideration for the Kbb. Inversely, the unique role of other HCP Partners is to provide voluntary support to the DNR and to the recovery properties where their help will further the DNR's efforts to achieve recovery goals. (Refer to Chapter 6 for more detailed information regarding Karner blue recovery.).

#### B. Adaptive Management in Action

When the FWS issued an incidental take permit in 1999 for implementation of the HCP, the DNR, 25 HCP Partners and the FWS started off with caution; aware that there were uncertainties about the species and the range, and cognizant that when more experience was gained about how the monitoring system would work and what it would teach them that they would have to (want to) make adjustments. That time came in 2003. Improvements to the following systems were the result:

Monitoring Strategy Revisited: The effectiveness and self-monitoring strategies were reevaluated. Originally these monitoring strategies implemented by the HCP partners provided
valuable and important information on the Karner blue and its distribution. However, partners
realized they were not as efficient, useful or biologically insightful as was needed. They needed
to adapt. To that end in 2003 the HCP Partners' Implementation Oversight Committee (IOC)
established a Monitoring Improvement Team (MIT) to assess the monitoring program and as a
result, many improvements to the monitoring program were identified and implemented.

Guidelines and Protocols Validated and Reorganized: The HCP guidelines and protocols were revised (where needed) and reorganized. The IOC sponsored an effort to validate existing conservation measures and reorganize management guidelines. This effort was initiated by the Guideline-Repacking-Improvement-Team (GRIT) and resulted in the "HCP User's Guide" discussed above in this chapter.

With the realization that the HCP would be needed beyond 10 years, many other strategies, systems and procedures were developed. New partner inclusion processes for Limited Partners and new Full Partners were developed to engage 11 new county and township roadway managers as Limited Partners and 3 new Full Partners. As construction projects were being planned, a construction guideline and associated protocols evolved; and new protocols were developed for vibratory cable plowing and emergency situations. Also, administrative and operating procedures were needed to better document and direct future IOC and DNR program staff. Efforts are planned to continue developing better procedures and training materials. The DNR's Karner Blue HCP webpage (http://dnr.wi.gov/forestry/karner/) and the User's Guide will play a large role in institutionalizing and deploying HCP guidance and direction for as long as the HCP is needed.

The Karner Blue High Potential Range (HPR) gets a scientific adjustment. The Kbb HPR and the recovery areas were greatly enhanced as the result of a Kbb probability model made

possible with several years of Partner data.

In collaboration with the DNR's Division of Forestry, a Karner blue butterfly probability model was developed by the Forest Landscape Ecology Lab, Department of Forest Ecology and Management at the University of Wisconsin-Madison (Sickley and Mladenoff 2007). This model utilized several years of Partners' Kbb habitat and Kbb presence and absence data that was not previously available.

In the original HCP the Kbb recovery areas were included in areas called Significant Population Areas (SPAs), which were included within larger Areas of Conservation Emphasis (ACEs). The SPAs and ACEs were replaced with Biological Recovery Zones (BRZs), which were derived from the Kbb probability model in combination with Kbb locations on recovery properties. BRZs are Kbb population based, more scientific and benefit from a great deal more Kbb data than was available when the ACEs and SPAs were mapped. (Refer to Chapter 6 and Figure 6.10 Karner Blue Butterfly Biological Recovery Zones on p. 51). A full report on the probability model and the current HPR and BRZ maps are available on the DNR's HCP Webpage (http://dnr.wi.gov/forestry/karner/)(Refer to Chapter 2 of this HCP for more detailed information on the Kbb HPR).

Adaptive management shifts into high gear –The HCP's Five-Point Plan. Following the efforts noted above, the HCP Partners soon realized that a significant amount of new information had been accumulated that could be used to evaluate the effectiveness of the HCP more broadly. The Partners soon realized that the HCP's adaptive management strategy, while excellent in concept was a passive system not directly engaged to make improvements in the HCP. It would need to become an active system employed as the foundation of the monitoring improvement process (and all HCP processes). Armed with a raft of new data, the HCP Partners adopted the 5-Point Plan for Continuous Improvement in 1996. The 5-Point Plan provides a broad framework and structured set of benchmarks or themes for setting goals for adaptive management. Significant efforts to improve the HCP have been guided by the HCP's 5-Point Plan (Refer to appendix C).

#### The Five Points of the Plan include:

- FOCUS HCP implementation on recovery areas. Focus on what really matters; the biological needs of the Kbb. De-emphasize that which does not contribute to recovery.
- 2. STREAMLINE processes. Eliminate non-value added activities.
- IMPROVE PROTOCOLS AND GUIDELINES, i.e. monitoring and management protocols and guidelines.
- 4. <u>RECOVER the Kbb</u> in Wisconsin (DNR actively involved and other Partners in a voluntary support role)
- EXTEND the TERM of the permit: Develop 10-Year ITP RENEWAL proposal. Evaluate progress and move forward. If the HCP is necessary after 2019, this can be repeated.

The Five-Point Plan was adopted by the HCP Partners in 2006, not only as an approach to jumpstart needed improvements, but as a guide for continuous improvement into the future.

#### C. HCP Improvements: Revisions and Clarifications

Numerous clarifications, revisions and a few amendments have been made to the updated HCP as more was learned through experience implementing the original HCP. Numerous other activities and protocols that were not envisioned at the onset were developed and added, e.g. vibratory cable plowing protocol. Listed are most of the significant and necessary improvements in the updated HCP made from about 2004 to 2009:

#### Revisions

- No Surprises -- Changed Circumstances: Wildfires and Gypsy moth infestation were removed from changed circumstances. Wildfires were removed because, from experience, wildfires provided (unplanned) beneficial habitat disturbance and Gypsy moth infestation did not apply for a number of reasons including the lack of appropriate conservation measures in the HCP and the likelihood that partners would not engage in Gypsy moth control activities. In addition, because the Gypsy Moth Program is funded by the U.S. Forest Service, a more appropriate review of this program is through the ESA section 7 consultation process.
- Certificate of Inclusion authorization has been stepped down from the FWS to DNR via an amendment to the DNR's incidental take permit (ITP) TE010064-5.
- New Partners have been added (14) as sub-permittee in the ITP.
- "Lands Included" Partners redefined their "lands included" in the HCP in their Species and Habitat Conservation Plans (SHCAs) to reflect changes in the adjusted Kbb HPR.
- New partner recruitment: The broad ITP/Implementing Agreement (IA)/HCP requirement to actively recruit (into the HCP) all the entities listed in the original HCP's Appendix D has been discontinued. While partners are still committed to broad outreach and education, direct, active recruitment efforts are best conducted in Biological Recovery Zones (BRZs) where they may benefit recovery of the Kbb.
- DNR's Landowner Contact and Assistance Program commitment is withdrawn due to the loss of funding. This need is being filled through external collaboration.
- Kbb High Potential Range (HPR): The Kbb HPR was adjusted using a Kbb Probability Model.
- Kbb recovery focus: SPAs & ACEs in the original HCP were changed to Biological Recovery Zones (BRZs); outreach & education and new partner recruitment will be focused in BRZs.
- Inclusion/Deletion of Element Occurrences (EOs): New Kbb EOs has been added to the DNR's Natural Heritage Inventory Database and a number have been removed, resulting in changes to the Kbb High Potential Range.
- Monitoring Changes:
  - Streamlined monitoring: The approach to monitoring was changed to focus surveying efforts where Kbbs are, or are likely to be, in order to apply conservation measures. The large effectiveness monitoring program, which included monitoring in locations where Kbb occurrences were unlikely and where no management actions were planned, was discontinued.

- Cause-Effect (C-E) Monitoring: The C-E monitoring for shifting mosaic activities was discontinued.
- Ocompliance Audits: Compliance audits have evolved over time with experience. Audits once focused primarily on understanding where to find conservation measures and on documentation of management actions conducted in occupied Kbb habitat; today there is a greater emphasis on assuring that Kbb conservation measures are applied correctly and consistently.
- All conservation measures were (and continue to be) evaluated and updated as appropriate.
- Measuring and reporting incidental take has evolved. Take = take of occupied lupine
  habitat. Other adjacent habitat components such as nectar areas are not included in the measure
  of take. However, these areas are included in the compensatory mitigation formula for
  permanent take.
- The Partner Inclusion Application process (for new Full and Limited Partners) was developed, which includes a new partner orientation program.
  - The Limited (Local) Partner designation evolved from the concept in the original HCP of a simple partner group for entities that only apply "Best Management Practices", e.g. mowing roadside rights-of-way.
  - The Species and Habitat Conservation Agreement (SHCA) templates for Full Partners and Limited Partners were updated.
- County Forest Long Term Habitat Plans are no longer mandatory for those who originally committed to them. County forest partners will do these conservation efforts regardless.
- The Articles of Partnership (AOP) were updated in 2009. The original AOP's goals were focused on drafting an acceptable HCP and receiving an incidental take permit, which were accomplished. New goals were developed to reflect the ongoing conservation program.
- HCP Annual Report miscellaneous updates were made that reflected changes in definitions, nomenclature and clarifications, e.g. what constitutes take, change from SPA to BRZ, etc.
- Land Transfers The necessity to report land transfers within 45 days that take place in a BRZ was eliminated. Instead, direct recruitment of conservation assistance from landowners in BRZs where assistance is needed to achieve recovery goals will occur.
- **Timber harvest** over snow covered frozen ground measure to minimize take was deleted. What is important is to avoid impact to lupine areas whenever harvest occurs.

#### Clarifications

- Permanent take vs. short term (temporary) take: Permanent take is defined in the HCP as
  an activity that precludes Kbb occupation for at least 5 years. Many construction projects may
  destroy habitat, but it will be replaced within 5 years. This temporary loss of habitat is only
  short-term take by definition. Mitigation requirements are detailed in the construction
  guidance.
- No Net Loss of Habitat (NNLOH) measuring the primary goal of the HCP: This has been an elusive metric for nearly a decade. In 2009 the HCP Partners got a handle on this and metrics are being incorporated in the annual reporting and compliance audit processes beginning with reporting year 2010.

- One-time-permittees can receive incidental take authority via the FWS's incidental take
  permit issued to the DNR for implementation of the HCP, but are technically not HCP
  Partners; they do not provide ongoing beneficial disturbance or participate in any way as a
  Partner.
- Automatic permit coverage Voluntary (unregulated) Landowner Category: Automatic
  permit coverage for take of the Kbb is provided to landowners in the Voluntary Group via the
  FWS's incidental take permit issued to the DNR for implementation of the HCP; the coverage
  remains active only as long as the ITP is in effect.
- Commercial Forestry: Initially, the DNR distinguished the difference between commercial
  and non-commercial forestry by ownership size (1000 acres). The HCP did not intend to
  require landowners that had land in excess of 1000 acres but were not managing the land
  primarily for the production of forest products (e.g., educational camps, Boy Scout or Girl
  Scout camps, recreational land) to obtain a certificate of inclusion. This group is included in
  the Voluntary Landowner category.
- The voluntary category is authorized to do permanent incidental take.

#### Other Improvements: New Additions, Deletions and Changes

- A Comprehensive HCP User's Guide was developed as a web-based repository for all
  management and monitoring guidelines and protocols, and all administrative and operational
  procedures. HCP conservation measures, survey protocols and forms are now in the Users
  Guide on the DNR's HCP webpage (<a href="http://dnr.wi.gov/forestry/karner/hcp-userguide.htm">http://dnr.wi.gov/forestry/karner/hcp-userguide.htm</a>) to
  help assist partners with high staff turnover rates to orient new staff to the HCP.
- Construction Guideline (New): At the onset, no partners had construction projects planned
  that would impact Kbb. In time this changed, so guidelines were developed. This guidance is
  being implemented provisionally as experience is gained using them. The guidance includes
  these features:
  - Habitat Restoration Protocol
  - Egg Salvage Protocol
  - Temporary Work Space A mechanism to cover take of Kbbs in temporary work space has been developed that does not require amending SHCAs.
  - o A mitigation planning tool, and
  - o Provisions for implementing minor and routine maintenance activities.
- Emergence Model A Kbb emergence model was developed to predict the onset and the peak
  of each flight.
- An Emergency Guideline was developed to provide guidance and contingencies in the event
  of serious emergencies that preclude management with consideration by definition.
- A Communication Plan has been developed and has since been improved consistent with the HCP's 5-Point Plan.
- Recovery actions have been integrated into the HCP, e.g. management protocols for the DNR (a recovery partner) include conservation measures to "feature and enhancement" the Kbb; these measure require a higher level of restoration (seed mix) and post-restoration management to be used on recovery properties.
- Recovery Program Report in HCP Annual Reports: In as much as the DNR's recovery
  properties receive their incidental take authority through the HCP, information from recovery

properties will be included in the HCP's annual report. This will not replace the DNR's Bureau of Endangered Resources Section 6 Kbb Recovery Report to the FWS.

#### Chapter 2. The Karner Blue Butterfly in Wisconsin

This part of the HCP includes information about the Karner blue butterfly and its location in Wisconsin. It is divided into the following sections:

- Importance of Conservation Measures to Karner Blue Butterflies in Wisconsin
- Elements of Karner Blue Butterfly Ecology
- Distribution and Abundance: Potential Karner Blue Butterfly Habitat
- Distribution and Abundance: Karner Blue Butterfly

#### A. Importance of Conservation Measures to Karner Blue Butterflies in Wisconsin

The disappearance and fragmentation of the pine and oak savanna habitats, through a variety of causes, has been a major contributor to the range-wide decline of the Karner blue butterfly (USFWS 1992a, 1992b; and works cited therein). In addition, natural plant succession in these habitats has eliminated Karner blue butterflies from some areas.

In locations other than Wisconsin and Michigan, the abundance of Karner blue butterflies has declined significantly. Karner blue butterflies have been extirpated from Iowa, Ohio, Ontario, Maine, Massachusetts, New Jersey, New Hampshire and Pennsylvania, appear to be extirpated in Illinois, and persist in only remnant populations in Minnesota, Indiana and New York (Iftner, et al. 1992; Baker 1994; Packer 1994; USFWS 2003). Karner blue butterfly reintroductions are ongoing in Ohio, New Hampshire and southeast Michigan. Population augmentations are being done in Indiana and New York. Due to the lack of viable populations of the butterfly in several states and the relative abundance of this species' populations in Wisconsin and Michigan. Wisconsin plays an important role in protecting Karner blue butterflies.

#### B. Elements of Karner Blue Butterfly Ecology

The Karner blue butterfly depends on the leaves of the wild lupine (Lupinus *perennis*) in its larval phase. The wild lupine in turn depends on periodic disturbance to allow it to succeed in the face of competing vegetation. This dynamic represents a unique paradox in endangered species protection and habitat conservation. (Refer to Appendix A for detailed biological information on the Karner blue butterfly and its habitat).

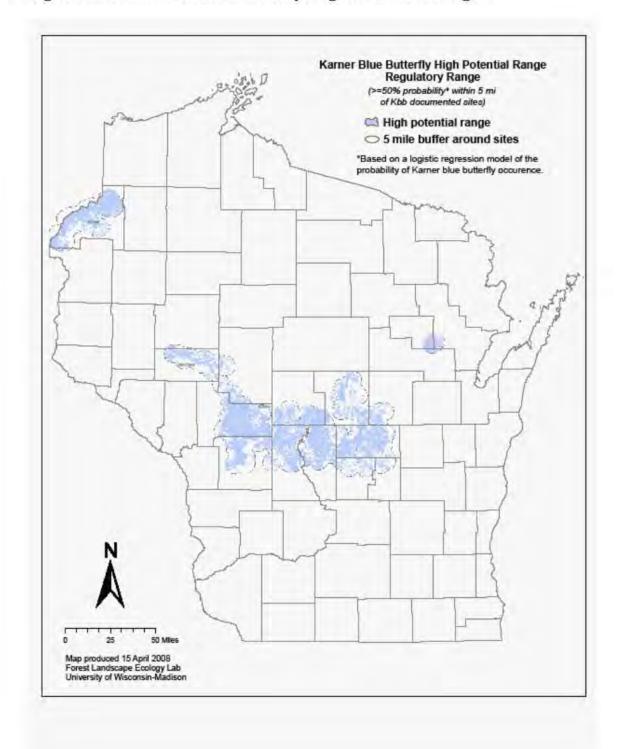
#### C. Distribution and Abundance: Potential Karner Blue Butterfly Habitat

This section briefly describes the distribution and abundance of known and potential Karner blue butterfly habitat. Potential habitat is defined as habitat that will meet certain biotic and abiotic conditions to support wild lupine at any point in time. Known habitat is defined as those surveyed areas where wild lupine has been found and which can support Karner blue butterflies. Known-occupied habitat is an area that currently supports Karner blue butterflies in association with wild lupine.

To assist the HCP partners in predicting where potential Karner blue butterfly habitat may occur throughout the state, Geographic Information System (GIS) technology was used to develop a

series of progressively more informed maps from 1995 through 2009. In February 2007 the HCP Partners adopted a new Karner Blue Butterfly High Potential Range (HPR) (See Figure 2.10. below) based on a probability model developed by the Forest Landscape Ecology Lab at the Department of Forest Ecology and Management at the University of Wisconsin-Madison. The most current HPR map can be found on the Karner Blue HCP Webpage: <a href="http://dnr.wi.gov/forestry/karner/">http://dnr.wi.gov/forestry/karner/</a>

Figure 2.10. Karner Blue Butterfly High Potential Range



#### D. Distribution and Abundance: Karner Blue Butterfly

Prior to 1990, information on the current status of the Karner blue butterfly in Wisconsin was lacking. Only 36 historical occurrences were known from the state (e.g., there was a 1921 record from Menominee County; in the 1960s, Karner blue butterflies were reported from Burnett County in northwestern Wisconsin [Royer 1962, Shapiro 1969]).

Today, Karner blue butterfly populations in Wisconsin are concentrated across the central counties and in the far northwest on sandy soil areas of Burnett County (Table 2.10, page 47).

Wisconsin supports the largest and most widespread Karner blue populations worldwide. As of 2009, at least 305 Karner blue butterfly element occurrences in the DNR's Natural Heritage Inventory (NHI) database were believed to be extant (T. Hyde, Bureau of Endangered Resources, pers. comm.). An "element occurrence" is a discrete record of Karner blue butterfly occupation as tracked by the NHI; some occurrences may be combined into single populations or metapopulations pending further research on Karner blue butterfly dispersal and behavior. These 305 element occurrences are grouped into about fifteen large population areas. Based on NHI data, most of these larger populations are found on sizable contiguous acreages in central Wisconsin and are concentrated in five general regions of the state:

#### West-Central Wisconsin (southern portion)

(Including Jackson County and Black River State Forests and Fort McCoy Military Reservation)

#### West-Central Wisconsin (northern portion)

(Including Eau Claire and Clark County forests)

#### **Central Wisconsin**

(Including Necedah National Wildlife Refuge, Sandhill State Wildlife Area, Volk Field Air National Guard Hardwood Air to Surface Gunnery Range, and throughout the northern half of Adams County on private lands)

#### **East-Central Wisconsin**

(Including Hartman Creek State Park and Emmons Creek State Fishery Area and scattered across the largely agricultural landscape on several smaller public and private properties)

#### **Northwest Wisconsin**

(Including Crex Meadows State Wildlife Area, Fish Lake State Wildlife Area, Governor Knowles State Forest and Burnett County Forest)

# Table 2.10. Wisconsin Counties with Known Karner Blue Butterfly Occurrences (Based on NHI Data through 2007)

Burnett Monroe Waushara Eau Claire Wood Waupaca Clark Juneau Marquette Jackson Adams \*\*Chippewa Menominee Portage \*\*Barron \*\*Polk \*\*Oconto \*\*Dunn \*Sauk \*Kenosha Shawano \*\*Outagamie Green Lake

<sup>\*</sup> Records in these counties have not been verified and likely do not exist.

<sup>\*\*</sup> NHI records in these counties were investigated in 2007 and it was found that Kbb likely never occurred at these sites.

## **Chapter 3. Land Conservation Strategies**

This part of the HCP identifies acreages and land management measures contributed by the HCP Partners to benefit the Karner blue butterfly while maintaining a variety of land uses, including social and economic uses. This part is divided into the following five sections:

- Measuring Conservation in this HCP
- Acreages Included in the HCP and Categories of Management
- Partner Groups
- Broad Conservation Strategies
- Land Management Activities

Direct land management efforts represent a significant portion of the Wisconsin Karner blue butterfly habitat conservation efforts. These conservation efforts routinely enhance habitat and are not applied to management just on occupied habitat. Additional activities will also be necessary for the success of the HCP. For example, many Partners will help maintain a broad state wide distribution of Karner blue butterflies through public outreach and education efforts, which encourage participation in butterfly conservation.

## Part A. Measuring Conservation in this HCP

Insect conservation efforts are based on different premises than traditional vertebrate conservation efforts. The Karner blue butterfly, like most insect species, has adapted to survive by producing relatively large numbers of eggs and large populations, with short life spans of individual animals and frequent generation turnovers. Most of the Karner blue butterfly's life is spent in the egg and larval stages. Natural mortality rates during these immature life stages are much greater than mortality rates observed for vertebrate animals. The survival strategy of the Karner blue butterfly relies on the success of overall populations rather than individual animals. To accommodate this strategy, a focus on habitat conservation and the success of populations—rather than individuals—is key to butterfly preservation (Scott 1986). Accordingly, the emphasis of this HCP moves away from the traditional measuring of the take of individual specimens of a listed species and toward managing for conservation of habitat and large populations.

**Short-term Take.** The long-term viability of Karner blue butterfly populations depends on habitat disturbance. Without periodic disturbance, natural woody succession shades out wild lupine and nectar plants and can passively eliminate Karner blue butterfly populations. Management of early successional habitat and creation of new habitat to replace habitat lost to natural succession is therefore necessary. This reality underscores the need for managing landscapes for a dynamic, shifting mosaic of populations. Fortunately, *many* land management activities, such as those used in forest management and utility right-of-way maintenance, provide such disturbances.

In situations like this, take is best measured in the context of the overall balance of habitat loss to

habitat gain; and temporary population declines to enduring population viability. It is not possible, in a defensible manner, to accurately express the take of individual Karner blue butterflies resulting from land management activities. Locations and numbers of individuals, particularly in the larval and egg stages, are usually unknown. Furthermore, similar activities can

produce variable mortality rates. Although management activities may result in some mortality, the absence of short-term disturbance would result in greater long-term losses.

**Definition:** Short-term take is an impact to occupied Karner blue butterfly habitat resulting from land management or land use activities, which results in habitat disturbance that renews declining habitat and/or restores habitat to replace habitat lost to succession or as a result of a land use activity. Short-term take is conducted following approved conservation measures in the HCP in a manner to avoid and/or minimize harm to the KBB (e.g. through appropriate timing of activities, selective routing and siting of projects, etc.) and maintain, enhance, and/or restore KBB habitat.

Such short-term impacts allow Kbb survival and/or the restoration and reoccupation of the site within five years. Activities or projects that may fall within the definition of short-term take include, but are not limited to:

- moving of roadside rights-of-way
- repairing roadside ditches to restore proper drainage
- roadside ROW improvements
- brush removal along utility corridors
- forest management practices
- conservation management, e.g. mowing and brushing for wildlife management, herbicide applications, prescribed burning, etc.
- pipeline and road construction, electrical and cable installations, and other construction and development projects that DO NOT cover or replace the habitat in a permanent manner (see definition of permanent take) and allow for habitat restoration and Kbb reoccupation within 5 years.

Permanent Take. Consequently, a more meaningful conservation measure is the *impact to habitat that precludes Karner blue butterfly occupation in the foreseeable future*. Examples of permanent take include paving or flooding existing occupied habitat. Activities are anticipated by some Partners (e.g. utility construction, flowage construction, road development, etc.) that could result in permanent take of occupied Karner blue butterfly habitat. If a Partner decides to move forward with any of these activities in the High Potential Range, surveys in the affected areas will occur prior to the activity. If the potentially affected areas are found to be occupied, the occupied area will be avoided to the greatest extent practicable. If the occupied areas cannot be avoided and permanent take is anticipated, a mitigation plan, which must be approved by the DNR and the USFWS, will be developed. Mitigation will be encouraged to take place on recovery properties where long term Karner blue management is committed. *Mitigation is required for all permanent take*. Partners are encouraged to begin coordinating with the DNR and the USFWS as early as possible and prior to the permanent take to insure plans meet with agency approval. In cases where executed plans do not meet with the approval of the DNR and USFWS, remediation work by the Partner will be required.

<u>Definition: Permanent take</u> is an impact to Karner blue butterfly habitat, through land management or land use activities, that precludes Karner blue butterfly occupation. Such long-term impact involves taking that does not allow for the restoration and reoccupation of the site for a minimum of five years. Activities or projects that may fall within the definition of permanent take include, but are not limited to:

- construction of roadways and parking lots;
- construction of buildings or structures and associated facilities;
- other construction or development projects that cover or replace the habitat in a permanent manner (at least 5 years), such as an airport or a flowage; and
- residential housing developments. [Note: This category does not include a permanent or second home and associated structures that are owned or built by the owner for his or her own use. This provision applies only to those housing developments approved after the date of permit issuance.]

One-time Permittee. Permanent take by certain categories of non-partner landowners will be accounted for through the one-time permittee provision in the landowner participation plan outlined in Chapter 5 of the HCP (see pages 45-46).

## Part B. Acreages Included in the HCP and Categories of Management

Table 3.11 (20-22) identifies total partner acreage included in the HCP. This acreage is a subset of the total acreage Partners own and manage (821,963 of 2.03 million acres). To be listed in Table 3.11, the acres needed to be: (1) capable of supporting the Karner blue butterfly now or in the future (i.e., within High Potential Range and on appropriate sandy soils) and (2) chosen by the individual Partners for inclusion under the permit.

Appendix A of each individual partner's conservation agreement identifies the "lands included" by acreage and location that are subject to pre-management surveys and approved conservation measures identified in the HCP and/or the Partner's conservation agreement. The "lands included" are those lands in the High Potential Range, most of which are capable of supporting the Karner blue butterfly, primarily because they contain sandy soils. Partners will add acreage to this category if found to be occupied or have the high potential to become occupied. Partners can receive permit coverage for acreage added to this category through a "land transfer" process, as defined by the DNR. Maps of included acreage will be updated by the Partners as needed.

The ITP will cover all partner-owned and managed lands in the state (a total of greater than 2 million acres), as well as all acreage included in the private and public voluntary status under the Landowner Inclusion Strategy (see Chapter 5 of the HCP for details of the landowner participation plan, pages 43-49).

Partners intend to manage the acreage identified for inclusion in the HCP with some level of positive consideration for the Karner blue butterfly. Management levels to benefit the Karner blue butterfly will vary across partner activities and economic goals. There are two distinct levels of focus:

- management with consideration for the Karner blue butterfly and its habitat, and
- management to feature and enhance the Karner blue butterfly and its habitat.

(Refer to Table 3.12 on page 22 for examples of activities for these two management categories.)

Management with Consideration for the Karner Blue Butterfly and its Habitat. This management category represents lands owned or managed by Partners on which consideration for the Karner blue butterfly and its habitat will be incorporated into routine land management

activities. Acreage in this category may include an entire, dynamic landscape with only portions occupied by the Karner blue butterfly at any given time. Although consideration measures will vary according to the land, activity and Partner, the long-term biological goal of this management focus is for butterfly habitat gains to equal or exceed losses occurring through natural succession or otherwise. (Refer to the HCP goal of No Net Loss of Habitat in Chapter 4 of the HCP.)

Land management activities for HCP acres in this category will primarily reflect the individual land management goals of the Partner, e.g. maintaining access to utility rights-of-way to restore power after a storm, to harvest timber, to maintain roadside rights-of-way for safe use of roads, etc. However, the land manager will apply management for these objectives in ways that are considerate of the Karner blue butterfly and its habitat needs, i.e. the HCP management guidelines and protocols. The first step of consideration for the butterfly is to determine if Karner blue butterflies are present or absence on or near areas of planned activity. If an area is occupied, the Partner will follow the conservation measures outlined in the applicable HCP management protocols in the HCP User's Guide. Conservation measures are designed to minimize impacts to Karner blues while providing necessary and beneficial disturbance to encourage habitat viability.

Management to Feature and Enhance the Karner Blue Butterfly and its Habitat. This management category represents lands that are owned or managed by Partners on which one of the primary management goals is to feature Karner blue butterfly habitat or the broader barrens community that includes it. This may be accomplished through habitat management, enhancement, or restoration activities that promote wild blue lupine, nectar plants, microhabitat, or habitat heterogeneity for the Karner blue butterfly. As with the management with consideration level, these lands are managed with the biological goal and expectation that Karner blue habitat gains will equal or exceed losses. Additional measures are taken, however, to promote viable Karner blue butterfly populations despite potential economic costs.

Managing with consideration and managing to feature and enhance share in common the same management protocols. The greatest distinction is in the level of conservation in each focus. The most significant difference is seen in the options for habitat restoration described below. (Refer to "Habitat Restoration Protocol" in the HCP User's Guide in Appendix E.).

Types of Karner Blue Butterfly Habitat Restoration

## Habitat Replacement if Managing with Consideration

Habitat Replacement restorations are conducted in response to construction, maintenance, management and repair activities and are meant to replace habitat lost as a result of these activities. These restorations are designed to provide the basic components (lupine and nectar plant requirements) of suitable Kbb habitat; and are **not** necessarily intended to restore optimal quality barrens flora.

## Habitat Restoration if Managing to Feature and Enhance

In restorations intended to feature and enhance Kbb's, the creation of quality barrens and prairie habitat is also considered. Restorations of this type not only benefit Kbb's, but also a broad range of associated barrens species. This type of restoration, like habitat replacement, is expected to meet basic lupine and nectar plant requirements for the Kbb.

However, planting a diverse seed mix is strongly encouraged to provide as much benefit as possible to other barrens species.

Table 3.11. Partner Acres in the HPR Included in the HCP and Subject to Monitoring, Management and Reporting

Full Partners	eages Included in HCP		
	Mgmt. with Consideration	Mgmt. to Feature, Protect, & Enhance	Total
Forest Industry			
New Page Wisconsin System Inc	1,115		1,115
Plum Creek Timber Company	53,900		53,900
Johnson Timber Corporation - Futurewood	70		70
Wausau Paper Corp.	875		875
Wisconsin River Power Company	5,159		5,159
County Forests			
Burnett County	107,744		107,744
Clark County	134,638		134,638
Eau Claire County	27,270	730	28,000
Jackson County	28,900	6,100	35,000
Juneau County	18,911		18,911
Monroe County	6,844		6,844
Washburn County	295		295
Wood County	38,049		38,049
Wisconsin State Agencies			
Department of Natural Resources	48,994	17,347	66,341
Department of Transportation	8,052		8,052

Table continues on next page.

Table 3.11. Partner Acres in the HPR Included in the HCP and Subject to Monitoring, Management and Reporting, Continued

Full Partners	Acreages Included in HCP		
	Mgmt. with Consideration	Mgmt. to Feature, Protect, & Enhance	Total
Utility Managers			
Adams Columbia Electric Cooperative	1,951		1,951
Alliant Energy – WP&L	275,635		275,635
American Transmission Company, LLC	5,117		5,117
ANR Pipeline – TransCanada Corporation	764		764
Enbridge Energy Company, Inc.	353		353
Northwestern Wisconsin Electric Company	1,500		1,500
Oakdale Electric Cooperative	6,196		6,196
Polk-Burnett Electric Cooperative	1,889		1,889
Wisconsin Gas Company - WeEnergy	889		889
Wisconsin Public Service Corporation	4,724		4,724
Xcel Energy, Inc.	5,980	20	6,000
Limited (Local) Partners			
Adams County Highway Department	2,000		2,000
Adams, Town of (Adams County Wisconsin)	550		550
Burnett County Highway Department	856		856
Eau Claire County Highway Department	3,568		3,568
Foster, Town of (Clark County Wisconsin)	10		10
Juneau County Highway Department	852		852
Lincoln, Town of (Burnett County Wisconsin)	245		245
Millston, Town of (Jackson County Wisconsin)	480		480
Quincy, Town of (Adams County Wisconsin)	21		21
Swiss, Town of (Burnett County Wisconsin)	688		688
Waupaca County Highway Department	2,682		2,682
TOTAL ACRES INCLUDED IN HCP			821,963
Other Partners	Acreages Not Applicable		

The figures shown in Table 3.11 (above) reflect partner lands known to be suitable to support Karner blue butterfly populations. Additional acreages owned by individual Partners may become included in the HCP at a later date, if information supports the suitability of those lands

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to maintain Karner blue butterflies.

Table 3.12. Examples of Activities Included in Each Management Category (*Note:* Specific options may not be employed by all partners.)

## Management with Consideration for the Karner Blue Butterfly and its Habitat

**Biological Goal**: Habitat gains equal or exceed losses and continue to provide habitat

- Pre-management presence/absence surveys
- Training of staff for Karner blue butterfly and lupine presence/absence
- Alter timing of disturbance (mowing, harvest, herbicide applications, etc.)
- Limit or cease application of some pesticides
- Managing forest types to maintain short lived, intolerant species; i.e. jack pine vs. red pine or white pine
- Maintain pine forest types with seed bed preparation, commercial harvest and natural regeneration from on site seed sources
- Leave a scattered distribution of large diameter oak or long lived conifers to provide scattered shade across Karner blue butterfly habitats
- Incorporate forest stand inventory attributes to indicate lupine and/or Karner blue butterfly occurrence which will assist GIS planning and shifting mosaic scheduling
- Avoid building new access roads or recreational trails through high Karner blue butterfly occupied habitat
- Continue updating lupine occurrence map for partner lands. Refine association between Forest Habitat Type Classification System and wild lupine occurrence
- Use patch scarification rather than furrowing when establishing jack pine plantations

## Management to Protect or Enhance the Karner Blue Butterfly and its Habitat

**Biological Goal:** Habitat gains equal or exceed losses and continue providing habitat, but also extra steps to promote/maintain higher Karner populations, sacrificing some economic return

- Pre-management presence/absence surveys
- Habitat assessment and suitability studies
- Monitor effects of management on Karner blue butterfly and associated habitat
- Manage for habitat heterogeneity
- Stock timber stands less densely
- Create and maintain dispersal corridors to promote subpopulation connection
- Participate in research projects related to population viability, habitat quality
- Barrens restoration or conversion work (from forest)
- Planting lupine, nectar plants in new openings if necessary
- Create or maintain long-term barrens habitat
- Participate in Karner Blue Butterfly Recovery Plan

**Recovery-related Acreage.** One of the Partners, the DNR, will be involved in federal recovery efforts for the Karner blue butterfly. In this instance, partner acreages committed to federal recovery may be the same as those intended for Management to Feature and Enhance the Karner blue butterfly or its habitat. See Chapter 6 of the HCP (pages 52-53) for more information on federal recovery efforts in Wisconsin.

## Part C. Partner Groups

For planning and evaluation purposes, the HCP Partners are grouped into six categories based on the similarities in history and long-term management goals. The transportation group is further divided into two strata based on level of participation and involvement. These six groups are briefly discussed below and include:

**Full Partner Groups** 

- Forest Industry
- County Forests
- State (DNR) Lands
- Utilities
- Transportation (WDOT)
- Other Partners

Limited (Local) Partner Group

Transportation (county highway departments and townships)

**Forest Industry.** Members of this partner group manage land for forest products. Most of these Partners have manufacturing facilities in the state, which require a continuous source of wood fiber. Lands owned and managed by these companies provide a portion of this raw material.

**County Forests.** The County Forest program began in 1927 following passage of the County Forest Crop Law which authorized counties to create county forests. Under the current County Forest Law, 28 counties own approximately 2.25 million acres. Eight of these counties are HCP Partners.

County forests serve multiple purposes. Timber production, public recreation, wildlife and water quality protection all co-exist through mixed use management. The Karner blue butterfly occupies some county forest lands, giving continued opportunities to affirm the wildlife protection aspect of multiple-use.

State (DNR) Lands. Wisconsin recognized the need many years ago to protect, manage and provide for public use of its natural resources. Since 1876, Wisconsin has been acquiring land to meet state conservation and recreation goals. As of March 31, 2009, holdings amounted to more than 1.6 million acres. Properties owned by the State of Wisconsin carry many designations, including Wildlife Management Areas, Fisheries Management Areas, State Forests, State Recreation Areas, Wild Rivers and River ways, State Parks, State Trails and State Natural Areas. The DNR continues to acquire, manage and conserve land according to statutory mandates and legislative programs.

Twenty-two of the properties owned or managed by the DNR are occupied by Karner blue butterflies. These butterfly populations occupy a total of approximately 1,200 acres of lupine habitat. Although five other DNR properties are believed to have the potential to support Karner blue butterfly populations, they are not known to be occupied.

The DNR intends to manage in excess of 66,000 acres of sandy soils either with consideration for or to feature the Karner blue butterfly and has included these lands in the HCP. The Karner blue butterfly is one of many considerations that must be integrated into the management of state lands. The success of these management efforts is measured in the ability of future generations to enjoy the same quality of environmental and recreational opportunities available today.

**Utilities.** This partner group manages easements for the construction and maintenance of: (1) overhead electrical transmission lines, and (2) underground electrical, gas and oil lines. Some of the transmission line corridors or rights-of-way (ROWs) have been in place since the early 1900s. Over the years, ROWs have been managed to reduce the growth of woody vegetation. For both overhead and underground lines, a clear ROW provides line access and reduces the likelihood of woody growth disrupting the line. In a few cases, the Partner owns the ROW for its utility line, but ROWs are predominantly easements from private landowners. These private landowners may have management issues separate from the utility company.

**Transportation.** The transportation group participates on two different levels:

- Full Partner (Wisconsin Department of Transportation)
- Limited (or Local) Partners (county highway departments and townships)

As one of the original Partners that developed and guided the implementation of the HCP, the Wisconsin Department of Transportation (DOT) is a Full Partner in the HCP. DOT is responsible for providing quality facilities and services for a variety of modes of transportation. Wisconsin's major investment is in the State Trunk Highway System, which began in 1918. Today, this system encompasses 130,000 acres of right-of-way (ROW). Depending on the type of road, remaining roadsides in ROW corridors range from twenty feet wide or less along the older highways to over 100 feet wide along some sections of interstate highways and other freeways. Medians provide additional vegetation, with widths generally varying between 40 and 60 feet wide.

State highway roadsides protect the highway facility by providing proper drainage and safe areas for errant or disabled vehicles. Roadsides sometimes accommodate utilities such as overhead or underground communication and power lines. Rest areas, waysides, scenic overlooks, historical markers and similar tourist amenities are also considered part of the highway roadside.

Limited (Local) Partners. In the HCP, the DNR and FWS committed to develop a standard process and concise and applicable conservation measures to ease evaluation of applications and issuance of Certificates of Inclusion (CI) for local governmental bodies engaged in road ROW/corridor maintenance. For the purposes of inclusion in the HCP, this type of entity is referred to as a "Limited Partner". Limited Partners can be generally characterized as performing a limited suite of management activities typically resulting in short term take and subsequently, favorable habitat conditions. Conservation measures

for their activities mostly fit into predefined best management practices. Limited Partners most often will have limited resources to apply to KBB conservation efforts. Therefore, Limited Partners will have abbreviated surveying and monitoring responsibilities, are not required to participate as full members on the HCP Team, nor are they required to subscribe to the Articles of Partnership or have a formal partner vote.

Other Partners. The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is also a Full Partner. They do not own or manage land and thus has a special role in the HCP. The DATCP's Bureau of Agrichemical Management pesticide and compliance programs carry out activities designed to protect endangered species from pesticide harm. These programs design, review and enforce pesticide use and labeling including the provisions of enforceable EPA Bulletins for pesticide labels. DATCP develops and provides pesticide protection guidelines for the KBB HCP, and responds to inquiries and complaints related to product use and misuse. The DATCP plays a key role in the landowner inclusion strategy discussed in Chapter 6 of the HCP (page 50).

## Part D. Broad Conservation Strategies

The HCP Partners have worked on the land, managing the natural resources for many years. Respective land management goals have been shaped by certain values, as well as available amenities and commodities. Partners have developed strategies to allow for these benefits while integrating considerations for Karner blue butterfly habitat conservation. Such strategies have evolved from the observation and study of past management that was seemingly beneficial to the Karner blue butterfly.

Partners identified the following broad strategies as possible options for conserving and fostering the Karner blue butterfly:

- Management for long-term habitat,
- Management for a shifting mosaic of habitat.
- Management for dispersal corridors, and
- Compensatory mitigation strategies.

Each of these strategies is discussed below. Partners have chosen to apply one, several, or all of these strategies to their respective lands.

Management for Long-Term Habitat. For Partners who have so chosen, some lands will be designated for the long-term maintenance of Karner blue butterfly habitat. In this context, long-term is defined as a period extending beyond the successional timeframe in which a site provides suitable Karner blue habitat following disturbance. The most common long-term habitat strategy will be barrens community restoration and management (as on several DNR properties). Areas not qualifying as barrens community, such as lupine habitat along road and utility corridors, may also be managed on a long-term basis through periodic mowing. Ongoing disturbance maintains an early successional community and is most often accomplished through fire or mowing rotation intervals of three to ten years, although evidence suggests longer rotations (e.g., 20-50

years) may provide excellent Karner blue butterfly habitat in many cases (e.g., in areas with very poor soils or areas affected by oak wilt). While mortalities within the local Karner blue butterfly population may occur in recently burned or mowed areas, reoccupation from surviving patches or adjoining populations may occur within one or two Karner blue butterfly generations.

Management for a Shifting Mosaic of Habitat. Forestry partners consider management opportunities to promote a shifting mosaic that will maintain Karner blue butterfly habitat in a diverse patchwork of forested stands in a slowly changing distribution over time across the larger landscape. Forest management with consideration for the Kbb is planned at the landscape level, but applied at the forest stand level to create or enhance habitat occupied by the Kbb. "Shifting mosaic" is a conservation strategy developed for application on any forest lands that are occupied by Kbb. The strategy is designed to provide a continued availability of Kbb habitat across the landscape by using a preplanned rotational harvesting pattern. As forest stands occupied by Kbb grow and mature they eventually shade out Kbb habitat. Local Kbb populations are normally extirpated through the process of natural succession unless other suitable habitat is available.

Under the shifting mosaic strategy, large blocks of forest surrounding an occupied Kbb site are divided into a series of smaller cutting units. Harvesting dates for these cutting units are staggered so that the Kbb population always has a recently cutover area within dispersal distance. The units are clear-cut, removing all overstory vegetation. This allows dormant lupine and nectar plants, if present in the soil seed bank, to regenerate and create habitat suitable for Kbb occupation. When a currently occupied site phases out of suitable habitat due to natural succession, the Kbb population can shift to another suitable site created through the shifting mosaic strategy. Management activities are likely to cause some incidental take of Kbb, but the renewed habitat that may result will more than offset the losses.

Likewise, the planned location of more permanent type openings such as log landings can be strategically incorporated into timber harvests to provide increased habitat potential. Based on the observations and experiences of land managers, such landings have provided excellent habitat patches that are occupied by the Karner blue butterflies. Linking landings with roads or trails, which can be designed into a timber sale or management activity, will provide potential corridors of habitat and a dispersal network for the Karner blue butterfly.

This is a long term strategy that can maintain and expand Kbb populations on a forest landscape indefinitely. It provides long term financial returns for the landowner while conserving Kbb habitat and populations. This provides a considerable incentive for private and industrial forest landowners to participate in Kbb conservation activities.

Management for Dispersal Corridors (including non-landowning Partners). For Partners who have chosen, some lands will aid in providing corridors or areas for Karner

blue butterfly dispersal. These lands may be managed under terms of written easements rather than fee title ownership, as with many utility company rights-of-way. In these areas, Partners will carefully plan the timing of management practices such as mowing, cutting and chemical applications to promote healthy Karner blue butterfly habitat and populations. Where known Karner blue butterfly populations exist, Partners who are land managers (and not the landowner) would work closely with individual landowners, as appropriate, to promote and protect habitat in these areas.

Compensatory Mitigation Strategies. For Partners whose proposed activity results in permanent take of occupied Karner blue butterfly habitat, a mitigation plan designed to compensate for the habitat loss and adverse impacts to butterfly, is required. The mitigation plan will be consistent with the HCP Construction Guideline and applicable protocols (refer to the HCP User's Guide in Appendix E.). Mitigation can include habitat restoration and creation, and/or land acquisition for Karner blue butterfly habitat restoration and creation. Activities could range from sowing or planting of wild lupine and nectar plants to land banking of restored and occupied butterfly habitat. Other mitigation measures approved by the DNR and USFWS may be considered as well, such as long term habitat management. Mitigation plans must be approved by the DNR and the USFWS.

## Part E. Land Management Activities

Partner groups often have similar long-term management goals. Many of the activities employed to achieve these goals could have an impact on the Karner blue butterfly or its habitat. Although specific application of land management activities may differ between Partners, there are commonalities in their relationship to the Karner blue butterfly. Each of the activities is discussed briefly below. These include:

- Forest management.
- Barrens, prairie and savanna management,
- Recreational management.
- Transportation management, and
- Utility ROW management.

The HCP Partnership developed a number of modifications to conventional land management practices intended to benefit the Karner blue butterfly. The resulting management guidelines and protocols were based upon the best scientific and applied knowledge available. From 2000-2007 the Partners refined the management guidelines and conservation measures based on accrued knowledge from several years experience implementing the HCP. This resulted in the "HCP User's Guide". New knowledge acquired through continued management experience, monitoring and research will be used in the HCP's adaptive management process.

As it pertains to the Partners, the ITP provides for the incidental take of the Karner blue butterfly, if the activity resulting in the take is conducted consistent with conservation measures, guidelines, or protocols included in the applicable conservation agreement, the DNR's Implementing Agreement with the USFWS, or is consistent with the HCP. Most

Partners have agreed to follow the guidelines included in the HCP User's Guide (See Appendix E of the HCP). Some Partners have outlined specific and unique conservation measures in their conservation agreements, and will do a mix of what is in the HCP User's Guide and their own approach. All commitments, however, are clearly stated in the partners' individual conservation agreements, especially if they intend to manage differently than what is outlined in the HCP.

Because of the dynamic and evolving nature of the conservation effort -- with the oftenchanging science and conclusions based on partner experience and research -- it is anticipated that protocols and guidelines developed and included in the HCP and individual conservation agreements may need modification. New guidelines, protocols, or conservation measures may also be developed during the permit period. New or modified guidelines, protocols, or conservation measures will need approval by the DNR and the USFWS before being implemented.

## 1) Forest Management

A number of partner groups will be involved in forest management activities. These include the forest products industry, county forests, some utilities and the DNR. Forest management includes a variety of activities, such as:

- a) Timber harvesting,
- b) Stand improvement,
- c) Forest road construction and openings management, and
- d) Forest regeneration, including site preparation and maintenance.

Prior to performing any forestry activities in the High Potential Range, Partners will conduct pre-management surveys to determine Karner blue butterfly presence or absence. Where Karner blue butterflies are present, all forestry Partners will follow the "Forestry Management Guideline" and applicable management protocols in the "HCP User's Guide" (see Appendix E of the HCP) (Refer to the DNR's HCP webpage for most current revision) unless otherwise agreed to in their individual conservation agreements.

Consistent with the coverage and protections afforded Partners in the ITP and their individual conservation agreements for acts of contractors, conservation strategies -- when applicable -- will routinely be included in timber sale contracts. If employees harvest or manage timber, they will be directed to apply appropriate conservation measures.

Where forest road construction may result in permanent take, the Partner will follow the HCP's "Construction Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Emergency situations arise such as forest fire suppression activities and wind damage that pose threats to public safety and impair road infrastructure that require immediate management action. In such cases Partners will follow the HCP's "Emergency Guideline". (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage

for the most current revisions.). Where pre-planning and pre-management surveys are not possible and the emergency situation creates the need for immediate salvage cutting of damaged timber from windstorms, forest fires, flooding or insect and disease epidemics the Emergency Guideline will be followed and impact to known or suspected Kbb habitat will be avoided to the greatest extent practicable. Where salvage harvest is not an urgent matter, follow the HCP's Timber Harvest Protocol.

## 2) Barrens, Prairie and Savanna Management

Several Partners identified restoration or maintenance of native barrens habitat as an important land management goal. In this context, barrens includes the range of possibilities from nearly treeless sand prairie to oak/pine savanna to shadier oak/pine woodland -- all on dry, sandy soils. For some lands, the goal may be specifically to optimize Karner blue butterfly populations. For other lands, the goal may be to manage for a larger barrens ecosystem.

Barrens management tools include prescribed fire, mechanical management (such as timber cutting, tree-girdling and brush-hogging), selective herbicide treatment, native plant propagation, or grazing. The design and implementation of a management regime must be tailored to a given site, taking into account site size, context within the landscape, available equipment and personnel, naturally occurring defoliation by insects or disease, weather and a variety of other factors.

Many plants and animals native to disturbance-adapted communities, like barrens, depend on the ability to either survive the disturbance at some level or to recolonize from nearby undisturbed areas. Many sites are so dry that they require only very infrequent disturbance. Prior to performing any of these disturbance activities in the High Potential Range, Partners, such as the DNR, that have chosen this management goal will conduct pre-management surveys to determine the presence and location of occupied Karner blue butterfly habitat. Partners will use the HCP's "Conservation Management Guideline" and applicable management protocols to apply these various tools. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

#### 3) Recreational Management

Many of the HCP Partners manage lands used by the public for recreation. Management of these recreational activities can be broken into three categories: (a) intensive development and maintenance, (b) less intensive development and maintenance and (c) public use.

Intensive Development and Maintenance (construction). Intensive construction includes such activities as building development, creation of flowages and laying of pavement or gravel for roads, parking lots, etc. Prior to development of recreational facilities in the High Potential Range, Partners will conduct a pre-management survey to determine if the site is occupied. If development of the facility may result in permanent take: (1) alternatives or other measures to avoid impacts to the occupied habitat will be

considered, and (2) if a permanent take can not be avoided, the Partner will inform the DNR and the USFWS and prepare a mitigation plan for their approval. Partners will follow the HCP's "Construction Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Less Intensive Development and Maintenance. Less intensive activities include development and maintenance of campgrounds, picnic areas, boat access, trails and similar facilities. A variety of maintenance activities, ranging from mowing picnic areas to spreading fresh gravel on hiking trails occur on some partners' lands. These activities will generally occur in already unoccupied and developed areas. Trails bordered by lupine and/or nectar plants can serve as Karner blue butterfly habitat and dispersal corridors. Maintenance of these trails (e.g., carefully timed brushing or mowing) can enhance population dynamics across landscapes and promote population connectivity and colonization of new openings. Bridle trails are not recommended in quality native habitats, due to many potential problems, including erosion and introduction of aggressive competing plants through manure. Prior to development or maintenance of recreational facilities in the High Potential Range, Partners will conduct a premanagement survey to determine if the site is occupied by Karner blue butterflies. Where Karner blue butterflies are present, Partner will follow the HCP's "Recreation Management Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Public Use. A variety of public uses, ranging from hiking and bird watching to mountain biking and hunting, occur on some partner lands. Human traffic through occupied areas may result in some incidental take through inadvertent trampling. Heavy traffic through occupied habitat will be avoided through trail design and property management to avoid any serious impacts to Karner blue butterfly populations. Partners will take reasonable action to discourage or prohibit use of Kbb occupied habitat.

All management should be applied in a manner that does not specifically identify the habitat as Karner blue butterfly occupied habitat, unless it will serve as an educational component and the intent is to identify the area to provide education and the promotion of conservation efforts, while taking reasonable precautions to protect the habitat area.

## 4) Transportation Management

The Wisconsin DOT and eleven Limited Partners (either county highway departments or townships) are involved in transportation management.

Road Development. Prior to road construction in the High Potential Range, premanagement surveys will be conducted to determine if Karner blue butterflies are present. When surveys indicate that a Karner blue butterfly population occurs along or immediately adjacent to a right-of-way, Partners will follow the HCP's "Construction Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Road Maintenance. Similar to the development of ROWs, the maintenance of ROWs may require minor disturbance of existing Karner blue butterfly or lupine habitat. DOT will conduct pre-management surveys in the High Potential Range to determine if Kbb are present; where Kbb occur these disturbances will be consistent with the HCP's "Corridor Management Guideline" and applicable management protocols found in the HCP User's Guide unless otherwise provided for in their individual conservation agreement.

County highway departments and townships (Limited Partners) will, at a minimum resurvey their ROW's for lupine habitat annually, consistent with the "Wild Lupine Survey Method on Road Rights-Of-Way (ROW) for Limited (Local) Partners"; and where lupine occurs on ROW's, management will follow the HCP's "Limited Partner Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

<u>Emergencies</u> resulting from storm damage and road flooding sometimes occur. In these cases, Partners will follow the HCP's "Emergency Guideline" to the greatest extent practicable. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

## 5) Utility ROW Management

The majority of ROWs included in the HCP are not partner owned, but are managed under easement. Management, therefore, may be subject to landowner approval. Utility ROW management maintains an open canopy through mowing and removal of woody vegetation. Disturbance caused by utility line construction may enhance the habitat for lupine and benefit the Karner blue butterfly in the long-term.

Construction of Overhead Transmission Lines. Utility transmission line construction is considered less detrimental to Karner blue butterfly habitat (in that there is minimal disturbance of the soil), when compared to pipeline construction activities. In new construction, an effort will be made to route around any Karner blue butterflies and lupine habitat areas.

Prior to starting construction activities in the High Potential Range, Partners will perform pre-management surveys to determine if Karner blue butterflies are present. When surveys indicate that a Karner blue butterfly population occurs along or immediately adjacent to a right-of-way, Partners will follow the HCP's "Construction Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Construction of New Pipelines and Underground Transmission Lines. Pipeline and underground transmission line corridor construction sites are usually less than 100 feet wide and remain in a state of partial or complete defoliation for only a short period of time (3-4 months, on average).

Prior to starting construction activities in the High Potential Range, Partners will perform pre-management surveys to determine if Karner blue butterflies are present. When surveys indicate that a Karner blue butterfly population occurs along or immediately adjacent to a right-of-way, Partners will follow the HCP's "Construction Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Maintenance and Repair of Overhead Transmission Lines. It may be necessary to disturb existing Karner blue butterfly or lupine habitat to facilitate line maintenance. These minor disturbances may enhance the growth of lupine and nectar plants and may indirectly benefit the Karner blue butterfly population.

Prior to beginning maintenance and repair activities in the High Potential Range, utility Partners will perform pre-management surveys to determine if Karner blue butterflies are present. When surveys indicate that a Karner blue butterfly population occurs along or immediately adjacent to a right-of-way, Partners will follow the HCP's "Corridor Management Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

Maintenance and Repair of Pipelines and Underground Transmission Lines. Pipeline and underground transmission line repair and maintenance activities in Karner blue butterfly habitat will follow procedures in the "Construction Guidelines" (see HCP User's Guide in Appendix E).

Prior to beginning maintenance and repair activities in the High Potential Range, Partners will perform pre-management surveys to determine if Karner blue butterflies are present. When surveys indicate that a Karner blue butterfly population occurs along or immediately adjacent to a right-of-way, Partners will follow the HCP's "Corridor Management Guideline" and applicable protocols for brush removal for clearance and access. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.); repairs will be consistent with the HCP's "Construction Guideline" and applicable protocols. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

## 6) Special Emergency Circumstances.

Emergency operations may apply to any partner group. <u>Emergencies</u> related to storms and certain excavation damage to utilities occasionally result in power line tangling, leaking pipelines, downed trees blocking roads, flooding, wild fires. In these cases, Partners will follow the HCP's "Emergency Guideline" to the greatest extent practicable. (Refer to Appendix E or the HCP User's Guide on the DNR's HCP webpage for the most current revisions.).

## Chapter 4. Adaptive Management and Monitoring

This part of the HCP discusses the use of adaptive management by the HCP partners. It is divided into three main sections:

- Adaptive Management and Monitoring Strategies
- Monitoring and Surveying Procedures
- Research

## Part A. Adaptive Management and Monitoring Strategies

Adaptive management can be defined as a formal, structured approach to dealing with uncertainty in natural resources management, using the experience of management and the results of research as an on-going feedback loop for continuous improvement. Adaptive approaches to management recognize that the answers to all management questions are not known and that the information necessary to formulate answers is often unavailable. Adaptive management also includes, by definition, a commitment to change management practices when determined appropriate.

The adaptive management strategy will focus on achieving two primary HCP monitoring goals: (1) to assess the effects of management activities on the Karner blue butterfly and its habitat and adjust conservation measures to better conserve the Kbb where data and research support the change; (2) to assess new biological, economic and policy information and adjust operational parameters, programmatic and administrative procedures. The first goal is traditional; the 2<sup>nd</sup> goal reflects the reality of 21<sup>st</sup> century economics and that circumstances will continue to change over time as new biological information is identified.

## Part B. Monitoring and Surveying Procedures

(For detailed guidelines and protocols refer to appendix E of the HCP or for the most current version, the DNR's HCP webpage)

HCP monitoring is divided into three types:

- Compliance Monitoring
- Effects monitoring
- Effectiveness monitoring

Integrating the monitoring program into the adaptive management strategy is crucial in order to guide any necessary changes in management.

#### 1. Compliance Monitoring

Compliance monitoring verifies that the DNR and all other partners are carrying out the terms of the HCP, the permit, the IA (for DNR) and individual conservation agreements (for all other partners). Auditing partner performance and verifying conservation agreement compliance is a large part of the compliance monitoring program. Audits of HCP partners are individual, on-site evaluations of various aspects of partner performance under their conservation agreements. These audits are intended to provide information to the USFWS, the DNR, the HCP partnership and the general public to give assurance with respect to DNR and partner performance under the permit.

File and field audits are conducted to verify partner compliance with their conservation agreements. Compliance auditing is required because the DNR must have a procedure to gather the evidence to show that the HCP is being implemented as written and that the DNR is in compliance with the Implementing Agreement. In addition, summaries of auditing results over time may provide useful insights for adaptive management.

Compliance audits are not a regulatory witch-hunt, but a one-on-one spontaneous training/learning opportunity; continuous quality improvement. Partners have overwhelmingly demonstrated they want to do the right thing. The assumption is that partners are doing what they believe to be correct; the best they can do with what they understand, have been previously trained or how they interpret or understand the HCP. The purpose of these audits is to identify where a partner does not appear to understand how to implement the HCP or interpret and apply their conservation commitments, and then for the auditor to provide continuing education and training to the partner and/or partner's staff attending the audit.

## Primary objective of audits

The auditor's primary objective is to make observations of performance characteristics to determine if the partner understands how to correctly implement the HCP. This includes conservation commitments in either the Implementing Agreement for DNR land managers or Species and Habitat Conservation Agreements (SHCA) for all other HCP partners. By complying with the conditions of the SHCA (or IA for DNR), the partner is also complying with the HCP and ITP.

## Secondary objective

The secondary objective is to assess mistakes and misinterpretations of HCP required performance for trends in poor performance. The auditor will provide training if necessary. If the problem is the fault of the HCP, e.g. unclear protocol or direction, the auditor will improve the system at fault. If there should be serious infractions, corrective action may be required.

The auditing procedures and processes referred to in this section are the responsibility of both the FWS and the DNR; however the DNR has the lead role in implementing the audit process. The procedures and processes in this section are a DNR and partner process, intended to monitor partner performance for the purposes already described and are separate from USFWS actions that may be taken relative to regulatory oversight in administration and enforcement of the permit pursuant to the federal ESA. For a detailed description of the administrative procedure for audits,

refer to Appendix E of the HCP. The most current version of audit procedures and past audit summary reports can be viewed on the DNR's HCP webpage.

## 2. Effects Monitoring

Effects monitoring evaluates the extent of the impacts on the Karner blue butterfly from the permitted activities.

- Short-term, minor impacts: A periodic measurement of incidental take measured in acres of Kbb occupied lupine habitat impacted will be derived from premanagement surveys and reported on annual reports. These impacts are related to routine management activities, which provide beneficial disturbance and/or very minor impacts to the local Kbb population. (Short-term take is further described in Chapter 3).
- Major impacts including permanent take: Permanent take is most often related to a construction activity. Post-construction monitoring is used in conjunction with habitat restoration following construction projects. The objective is to assess the status of the restoration to determine if the restoration objectives in the approved mitigation plan are being met. Habitat restorations can be related to compensatory mitigation plans required for permanent take or habitat replacement plans required by major construction projects where habitat is replaced following the construction activity. If appropriate and desired, this monitoring procedure can also be used for other restoration or habitat creation such as on a recovery property or other habitat project designed by Partners to feature the Karner blue butterfly.

This assessment of successful mitigation for construction activities will follow a similar evaluation as assessing the effects of management activities in C-E monitoring below. The criteria will be habitat based and correspond to the goals and objectives of each restoration plan.

• Cause and Effect monitoring: The objective here is to assess whether or not and to what degree HCP management activities provide benefits to Kbb habitat and ultimately to Kbb. Current management guidelines, protocols and conservation measures approved for use in the HCP are considered effective. New management methods or modified approaches may require testing and experience to assure the desired benefits to Kbb. Existing conservation measures may need evaluation and adjustments.

The biological conditions resulting from habitat disturbing land management activities will be assessed as needed or desired through Cause and Effect (C-E) surveys, which will directly translate into an active adaptive management process and improvements in management guidelines and conservation measures in management protocols.

Cause-Effect monitoring currently employs the Cause & Effect (C-E) Monitoring Protocol (Level 1 survey). This protocol is somewhat similar to a normal Level 1

survey, except that a more comprehensive habitat/vegetation assessment is required (not optional) for C-E surveys and they are performed both prior to and after the management activity being studied and in both first and second Kbb flight periods to assess nectar plant availability in both periods.

## 3. Effectiveness Monitoring

Effectiveness monitoring determines whether the effectiveness of the operating conservation program of the HCP is achieving the intended biological goals and objectives of the HCP. Effectiveness monitoring is broad in nature; designed to evaluate progress toward the intended primary biological HCP goal of No Net Loss of Habitat. Evaluating the operating conservation program and its progress toward the HCP intended biological goal will necessarily be assessed by a number of methods.

## • HCP's Primary Biological Goal

No Net Loss of Habitat - Monitoring the HCP's biological goal. The objective of this monitoring is to evaluate progress toward the primary goal of the HCP and the overall effectiveness of the HCP program at providing benefit to the Kbb. Data are collected from a variety of sources most of which are supplied by partners in annual reports.

<u>Biological Goal of the HCP:</u> There will be **No Net Loss of Habitat (NNLOH)** as a result of partner activities in the KBB High Potential Range (HPR). This will be assessed as follows:

Expected Outcome #1: Permanent take and short-term take both of which may result in destruction or complete removal of habitat (related to construction) will be more than offset by successful habitat mitigation and habitat replacement (respectively).

Method of Measuring Outcome: Construction project plans (for major projects) and annual reports (for minor projects) will reflect habitat lost vs. habitat restored or replaced. Post-construction mitigation assessment reports will include the assessment of the success measures in the approved HCP's Construction Guideline as a means of gauging the success of the mitigation plan.

<u>Expected Outcome #2:</u> Partners will conduct activities consistent with approved and proven conservation measures in order to avoid and minimize take of the Karner blue butterfly to the greatest extent practicable.

Method of Measuring Outcome: HCP Compliance Audits (compliance monitoring) will include an assessment of the conservation measures used by partners on a subset of activities conducted in occupied Karner blue butterfly habitat and be summarized in Compliance Audit Summary Reports.

Expected Outcome #3: Partners will seek out opportunities to create and manage a shifting mosaic of habitat for Kbb.

Method of Measuring Outcome: A system that will analyze (at a minimum) (1) average harvest, (2) allowable cut, and (3) age class distribution from 1-15 years (system to be developed) will guide Partners in guiding partners in managing to provide for a shifting mosaic.

- Annual Report. Annual reports provide data that can be considered in monitoring an adaptive management effort. The information contained in annual reports is consistent with the annual reporting condition required in the permit, the HCP, the IA and individual conservation agreements. Annual reports contain a variety of data, which can be used in all 3 types of monitoring. In addition, should information for further clarification be deemed necessary to implement an adaptive management approach, the DNR has authority through partners' conservation agreements to request other information as needed. At a minimum, annual reports will include the following elements:
  - 1. An estimate of the annual incidental take (characterized as acres of Kbb occupied habitat) that occurred as a result of short-term and permanent take.
  - 2. A summary of activities conducted by partners in occupied Kbb habitat including number of acres affected.
  - 3. Any additional information determined necessary to assess the HCP's biological goal of NNLOH.
  - 4. Results of lupine and Karner blue butterfly monitoring efforts including a summary of the data and updated maps as available.
  - 5. A summary of official HCP monitoring training sessions including the dates and locations; and a list of the names, addresses and phone numbers of people who are certified to conduct Karner blue butterfly surveys.
  - 6. New information that has been gained through scientific study or other assessment of management efforts that either (1) supports continued management, or (2) indicates a need to change management protocols.
  - 7. A discussion of the adaptive management effort, including any management changes that have been made in response to new information.
  - 8. A summary and discussion of the outreach and education that has occurred, including the approximate number of people reached through all means.
  - 9. Total acres of partners lands included in the HCP that occur in the High Potential Range of the Karner blue butterfly.
  - 10. The types and number of amendments (that do not involve Service approval) made to the Partners' SHCA's upon approval of the permittee.
  - 11. A summary report of Partners' compliance audits.
  - 12. The running total cumulative number of voucher specimens taken by date, gender and location of capture; mounted for educational purposes or sent to the Milwaukee Public Museum or other approved depository (along with label information), and current specimens under possession and control of the DNR including location stored and person responsible for safety and maintenance of those specimens All specimens

remain the property of the United Stated Government and must clearly be identified as such (refer to permit condition pertaining to collection of voucher specimens) 13. An updated list of DNR property managers and their contact information. 14. An updated list of HCP Partners including the original date of inclusion in the HCP, also reflecting transfers and name changes, along with the primary HCP implementation representatives to the DNR and their contact information. 15. And other information that the Service requests pertinent to tracking and understanding activities under the HCP.

**Annual Reports** are submitted to the DNR by each HCP partner and all affected DNR properties or area offices by March 1<sup>st</sup> each year.

Five-year Program Reviews. In order to facilitate a big picture analysis of the direction of this conservation program, the DNR will do a broader mid-permit assessment in 5-year intervals, e.g. 2014 and 2019. If course corrections are indicated, these can be evaluated during 2019; leading up to a potential permit renewal in 2020.

#### Part C. Research

Acquiring new knowledge through research can be a part of or inform an active adaptive management process, and result in improvements in HCP implementation efficiencies and effectiveness, and improvements in management guidelines and conservation measures. Research results will be routinely shared with all HCP partners.

## 1. Recent research

- "Detecting the Presence of Wild Lupine Utilizing Large-Scale Remote Sensing Multi-spectrum Satellite Imagery", Keith Rice and Jacob Hofman (UW Stevens Point), Wayne Hall (WDNR). Detecting wild lupine was proven feasible; however achieving high levels of lupine location accuracy in areas of low density of lupine may not be obtainable with this current technology.
- Kbb probability model: "Development of a Karner Blue Butterfly Probability Map for Use with the Habitat Conservation Plan", Theodore A. Sickley and David J. Mladenoff (University of Wisconsin-Madison) (2007). The development of this model generated a large number of maps representing Kbb probability in Wisconsin. The research significantly narrowed the spatial focus of where Kbb are most likely to be found. Additionally, it led to defining biology-based recovery zones that replaced older less science based recovery areas.
- Kbb Emergence model: A degree-day emergence was developed by the Forest and Landscape Ecology Lab, Dept. of Forest and Wildlife Ecology at the University of Wisconsin-Madison with several cooperators. The model is currently being used to predict the onset and peak of each Kbb flight period. While this has proven to be a great improvement over the look-and-see method, additional work is planned.

• (For more information about the model, refer to the Karner Blue Butterfly Emergence Model User's Guide in Appendix E).

## 2. Pending research

- Continue research on the Kbb emergence model to refine and validate the model; and to better understand application of the model under broadly varying predictability related to year-to-year climate variation and within year climate swings.
- Continue to refine the Kbb probability model and Kbb High Potential Range as new Kbb presence and absence data are reported.

## 3. Objectives for Future Research

Additional research will be explored for a variety of reasons. In the adaptive management context in which the Wisconsin Karner Blue Butterfly HCP will be implemented, research will meet the following objectives:

- To obtain information needed to assess and improve effectiveness of conservation strategies.
- To obtain information needed to improve efficiencies and cost effectiveness of management activities, thereby reducing the costs of conservation and increasing participation.
- To obtain information needed to identify additional, viable management options to improve conservation effectiveness and cost effectiveness.

## 4. Research Program

Observation and analyses of monitoring data by professionals at DNR and among partners will fuel the adaptive management process. The HCP is fortunate to be the benefactor of research already being pursued or planned by other parties. Other research that may be beneficial will be pursued as its priority becomes more important and as funding becomes available. The HCP partnership will not take the lead on research that does not benefit HCP implementation efforts. Where HCP partners' research responsibilities may be complementary to the FWS's federal recovery responsibilities, the initiation and pursuit of research may depend on federal financial support or research cooperation.

## 5. Coordination of Research Proposals

Partners who wish to engage in research that may result in take of the Karner blue butterfly and which is not specifically described in the HCP will coordinate with the DNR and the FWS to obtain approval and authorization in advance of the research activity. (Refer to Appendix E and the HCP Webpage (most current) for research proposal procedures).