# 7X.energy™

Juliet Solar

Exhibit E

**Ecological Assessment** 

Part 4 of 4

Case No. 20-1760-EL-BGN

Wetland and Waterbody Delineation Report Juliet Solar Project

# APPENDIX

# PHOTOGRAPHS OF SURVEY AREA AND VICINITY



DP001, View Looking North



DP001, View Looking South



DP002, View Looking North



DP002, View Looking South





DP003, View Looking North



DP003, View Looking South



DP004, View Looking North



DP004, View Looking South







DP005, View Looking North



DP005, View Looking South



DP006, View Looking North



DP006, View Looking South





DP007, View Looking North



DP007, View Looking South



DP008, View Looking North



DP008, View Looking South





DP009, View Looking North



DP009, View Looking South



DP010, View Looking North



DP010, View Looking South





DP011, View Looking North



DP011, View Looking South



DP012, View Looking North



DP012, View Looking South





DP101, View Looking North



DP101, View Looking South



DP102, View Looking North



DP102, View Looking South





DP103, View Looking North



DP103, View Looking South



DP104, View Looking North



DP104, View Looking South





DP105, View Looking North



DP105, View Looking South



DP106, View Looking North



DP106, View Looking South





DP107, View Looking North



DP107, View Looking South



DP108, View Looking North



DP108, View Looking South







DP109, View Looking North



DP109, View Looking South



Stream s001, View Looking Upstream



Stream s001, View Looking Downstream





Stream s002, View Looking Upstream



Stream s002, View Looking Downstream



Stream s003, View Looking Upstream



Stream s003, View Looking Downstream





Stream s004, View Looking Upstream



Stream s004, View Looking Downstream



Stream s101, View Looking Upstream



Stream s101, View Looking Downstream





Stream s102, View Looking Upstream



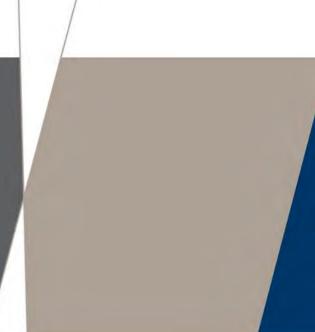
Stream s102, View Looking Downstream

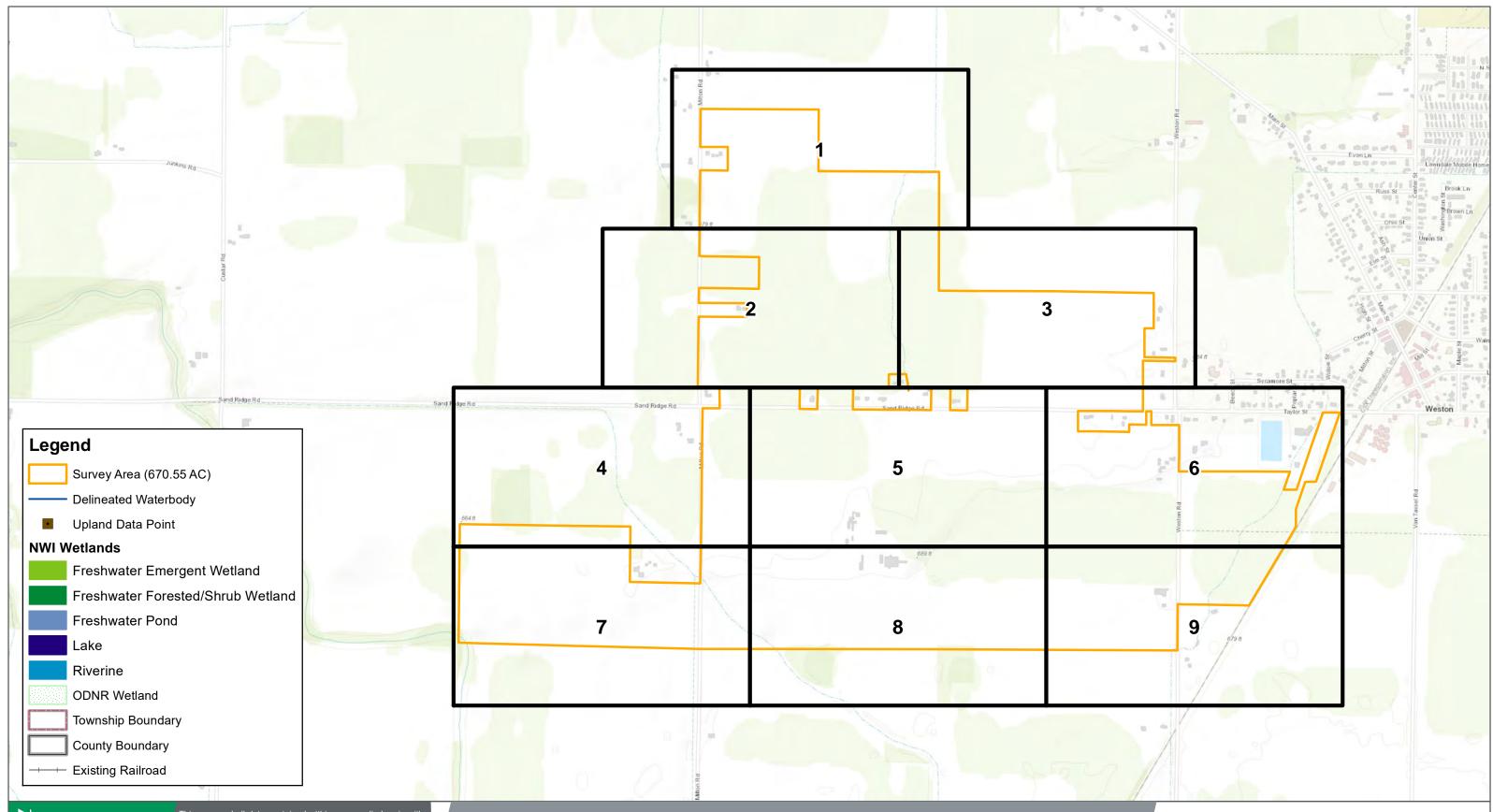
Project Number:	Site Photographs Juliet Solar Project Regulated Waters Delineation Report	Cardno
E319302602	Juliet Energy Project, LLC Wood County, Ohio	3901 Industrial Blvd. Indianapolis, IN 46254 USA Phone (+1) 317-388-1982 Fax (+1) 317-388-1982
		www.cardno.com

Wetland and Waterbody Delineation Report Juliet Solar Project

# APPENDIX

#### WETLAND AND WATERBODY MAPS







0 500 1,000 1,500 2,000 Feet

#### **Delineated Features - Overview**

Juliet Solar Project Wood County, Ohio

Date Created: 117/2021 Date Revised: 1/7/2021 File Path: S:\GIS\7x Energy\Juliet Solar Project\MXD\Delineation Package\Delineated Features - Overview\_20210107.mxc







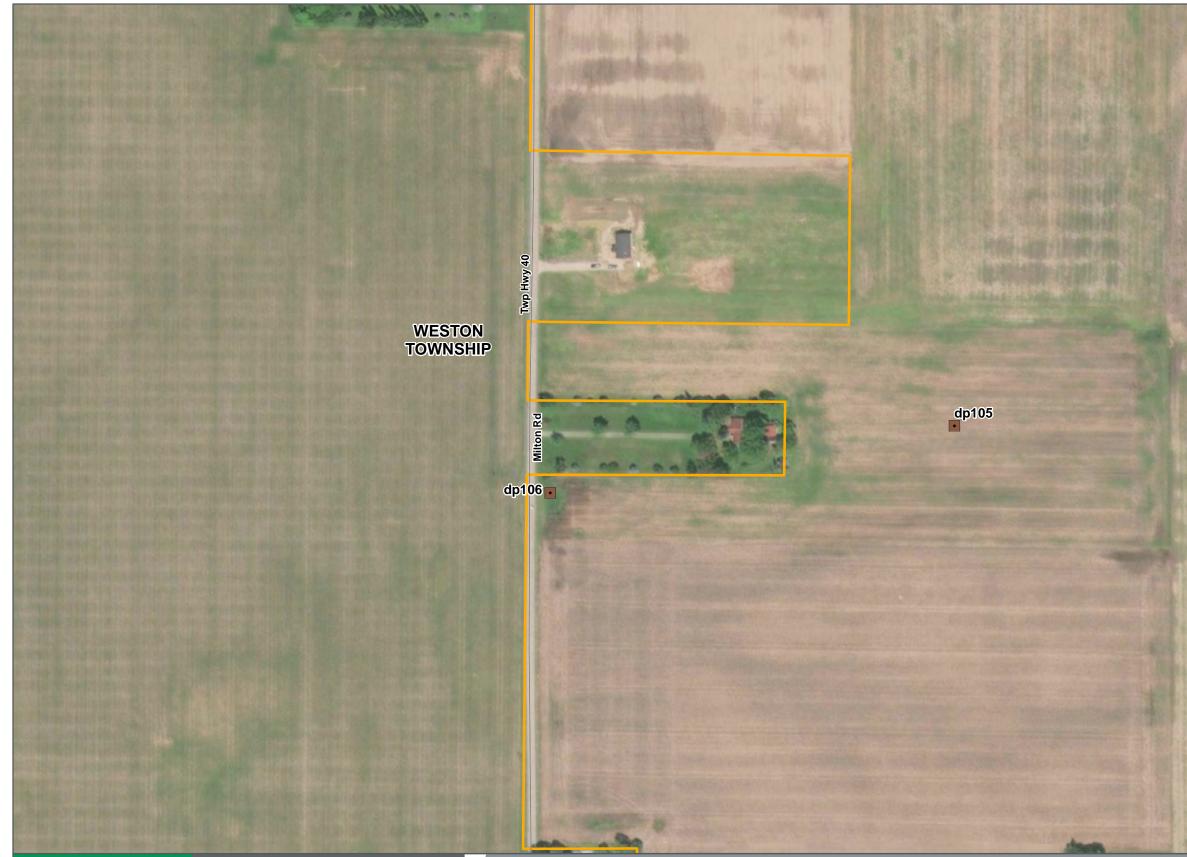


# **Delineated Features (Sheet 1 of 9)**

Juliet Solar Project Wood County, Ohio

Date Created: 1/8/2021 Date Revised: 1/8/2021 File Path: S:\GIS\7x Energy\Juliet Solar Project\MXD\Delineation Package\Delineated Features\_20210107. GIS Analyst: Peter Marsey





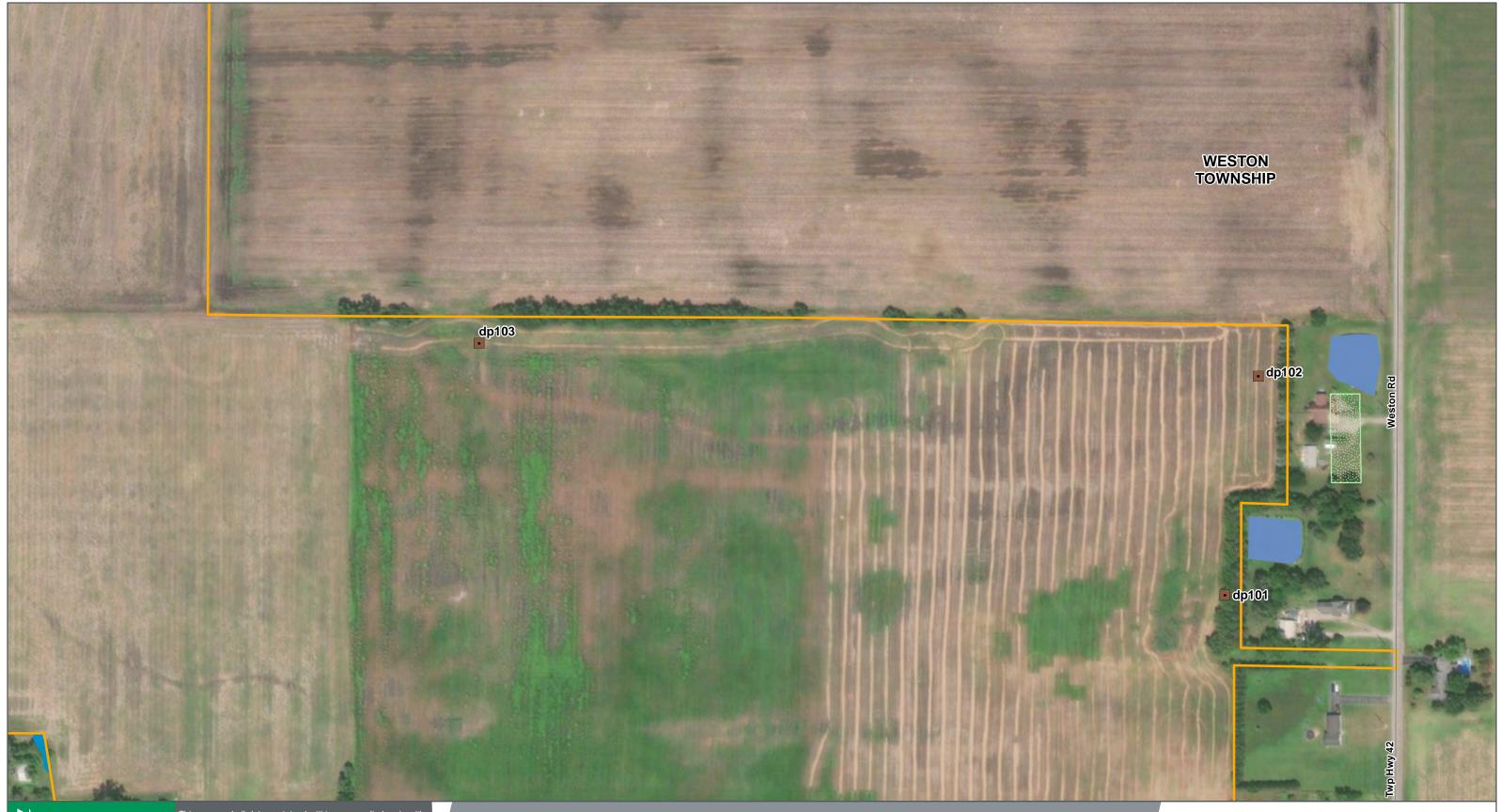


# **Delineated Features (Sheet 2 of 9)**

Juliet Solar Project Wood County, Ohio



- dp10





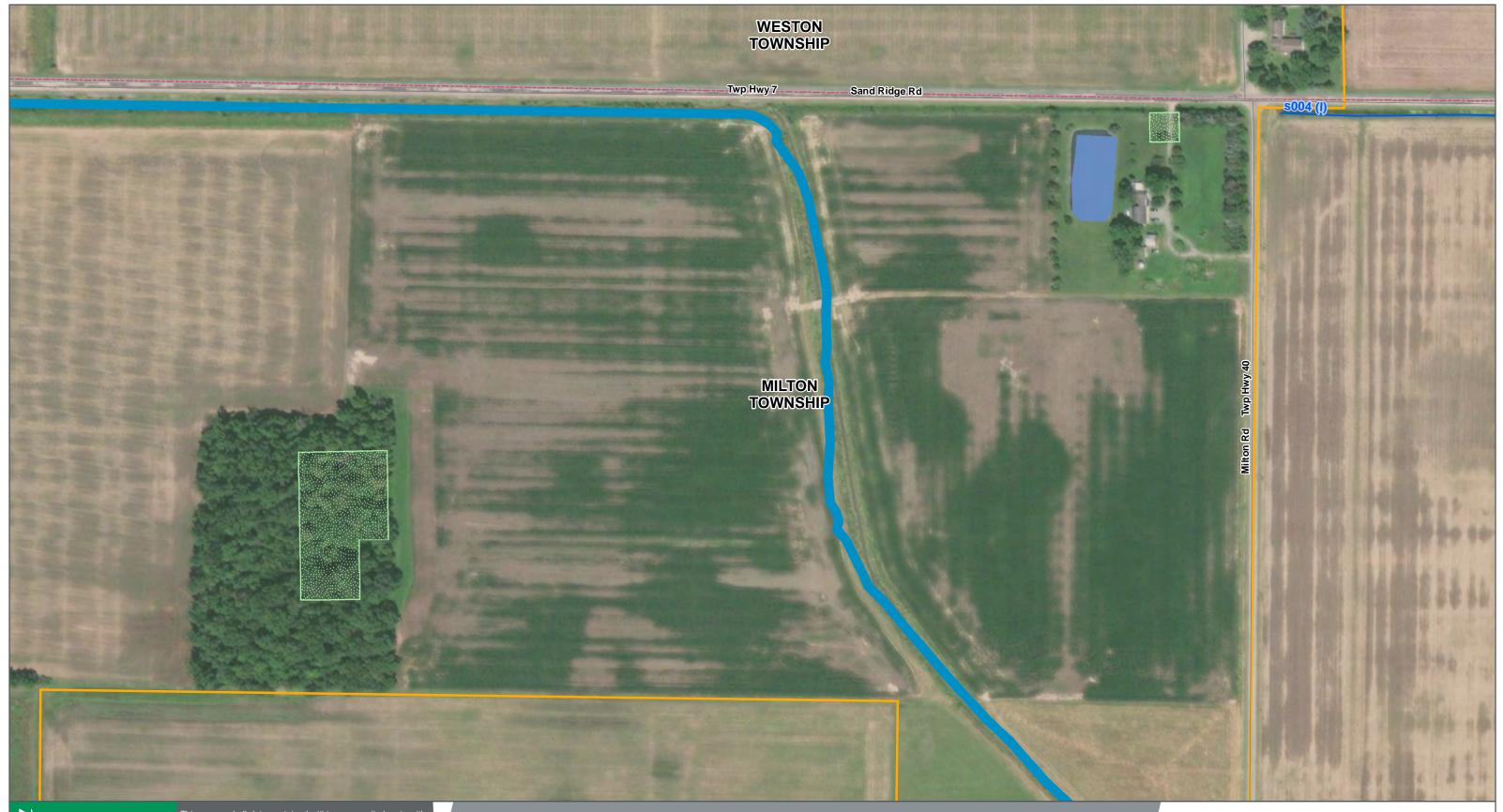


# **Delineated Features (Sheet 3 of 9)**

Juliet Solar Project Wood County, Ohio

Date Created: 1/8/2021 Date Revised: 1/8/2021 File Path: S:\GIS\7x Energy\Juliet Solar Project/MXD\Delineation Package\Delineated Features\_20210107.r GIS Analyst: Peter.Marsey





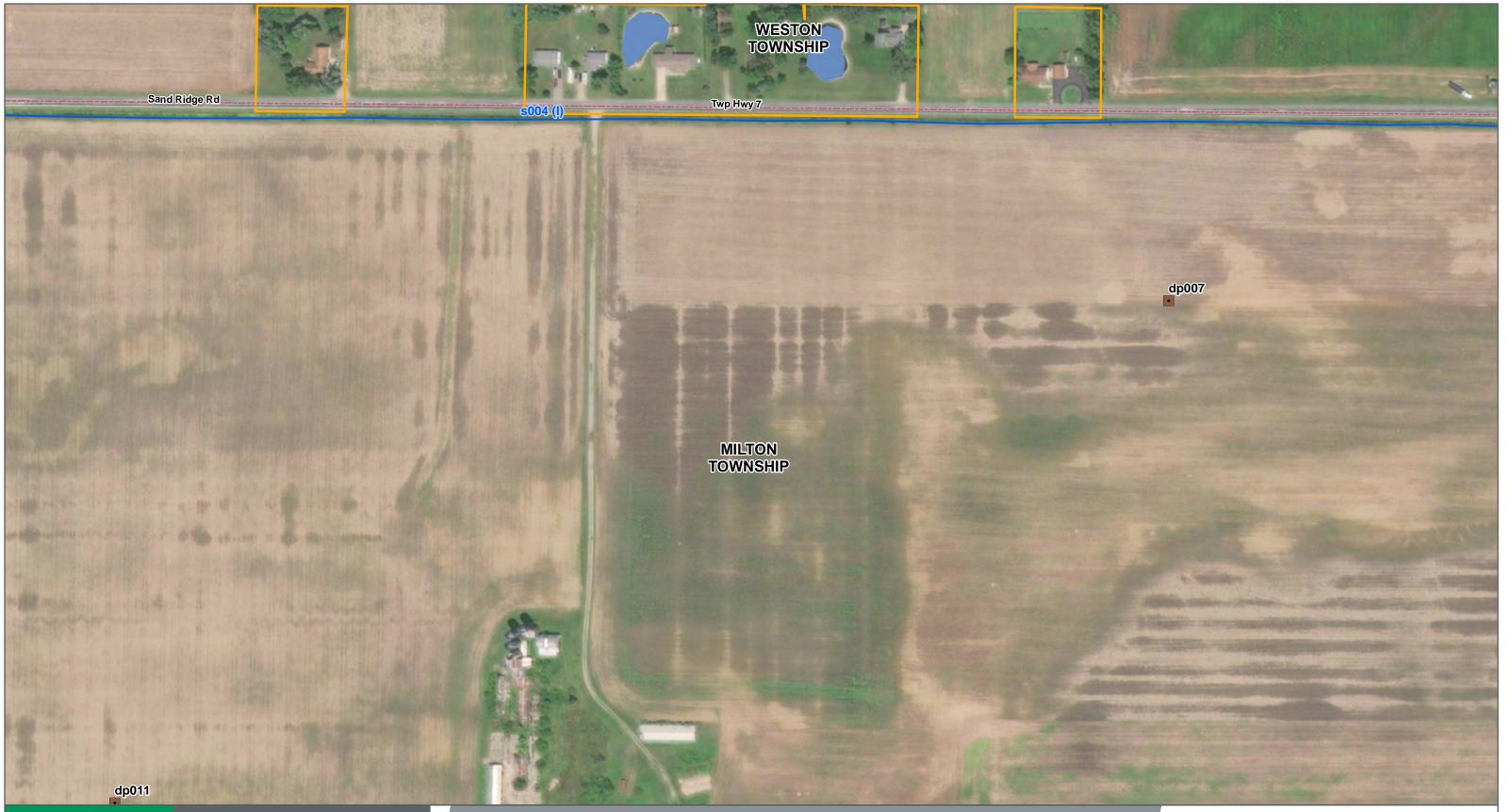




## **Delineated Features (Sheet 4 of 9)**

Juliet Solar Project Wood County, Ohio







# Delineated Features (Sheet 5 of 9)

Juliet Solar Project Wood County, Ohio







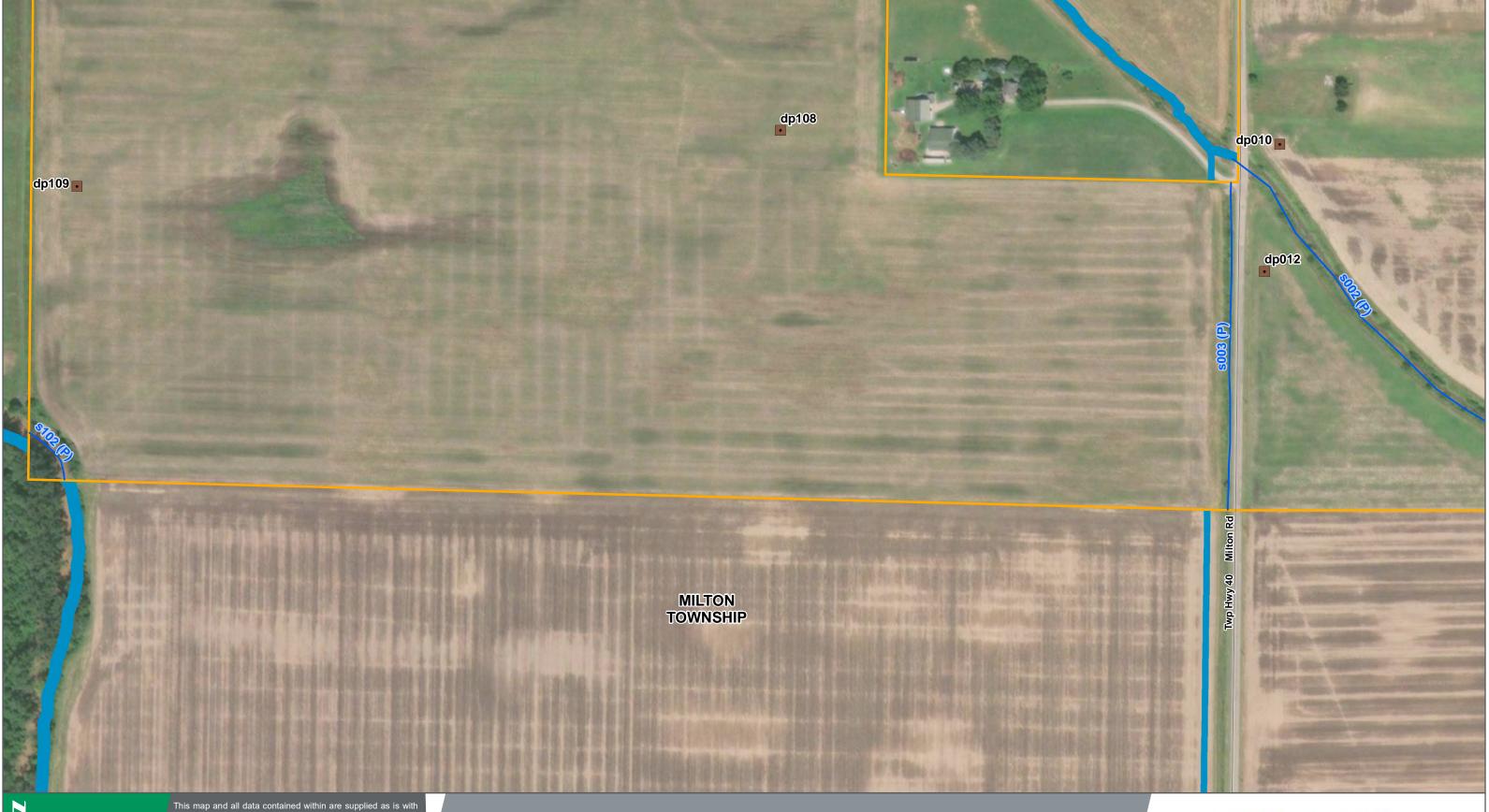


# **Delineated Features (Sheet 6 of 9)**

Juliet Solar Project Wood County, Ohio

Date Created: 1/8/2021 Date Revised: 1/8/2021 File Path: S:\GIS\7x Energy\Juliet Solar Project\MXD\Delineation Package\Delineated Features\_20210107.m GIS Analyst: Peter.Marsey





This map no warra damages use or n user to needs. T be used survey d by law. 0 h-t-t 0

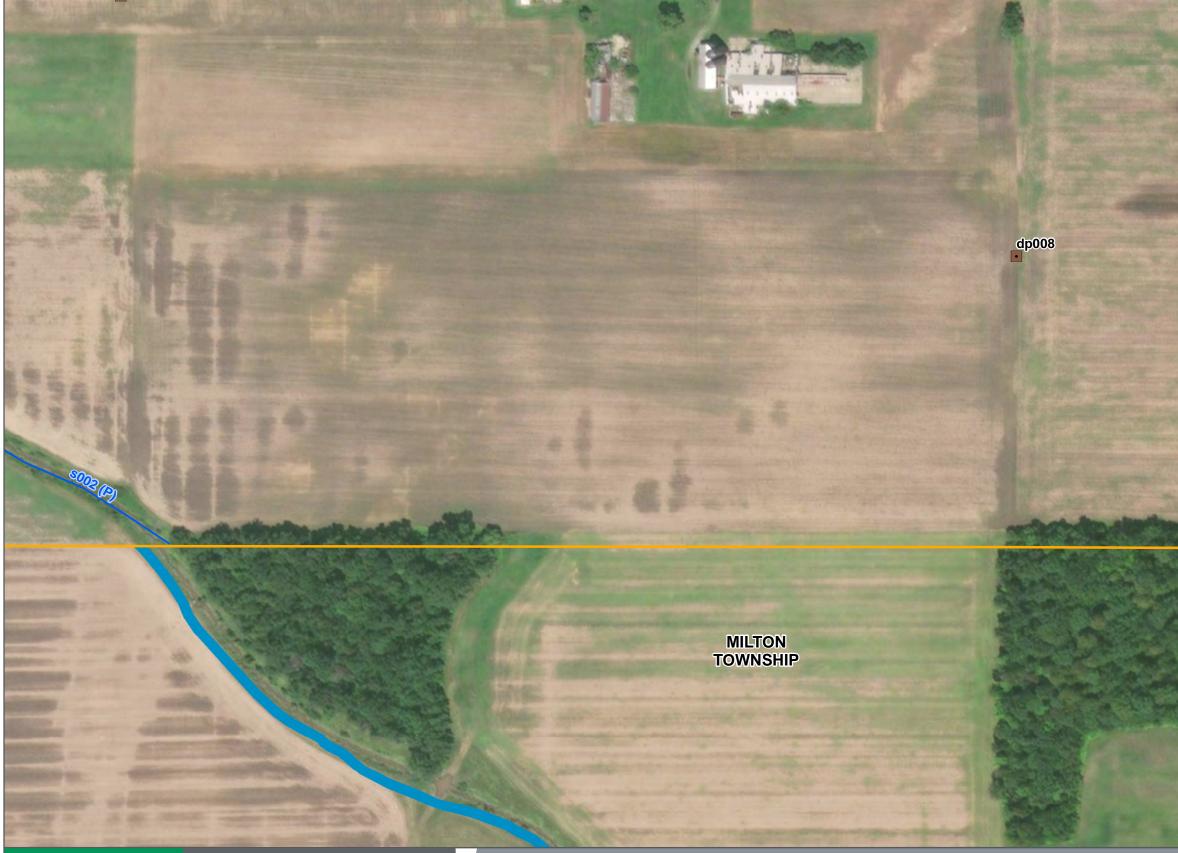
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0 100 200 300 400 Feet

## **Delineated Features (Sheet 7 of 9)**

Juliet Solar Project Wood County, Ohio

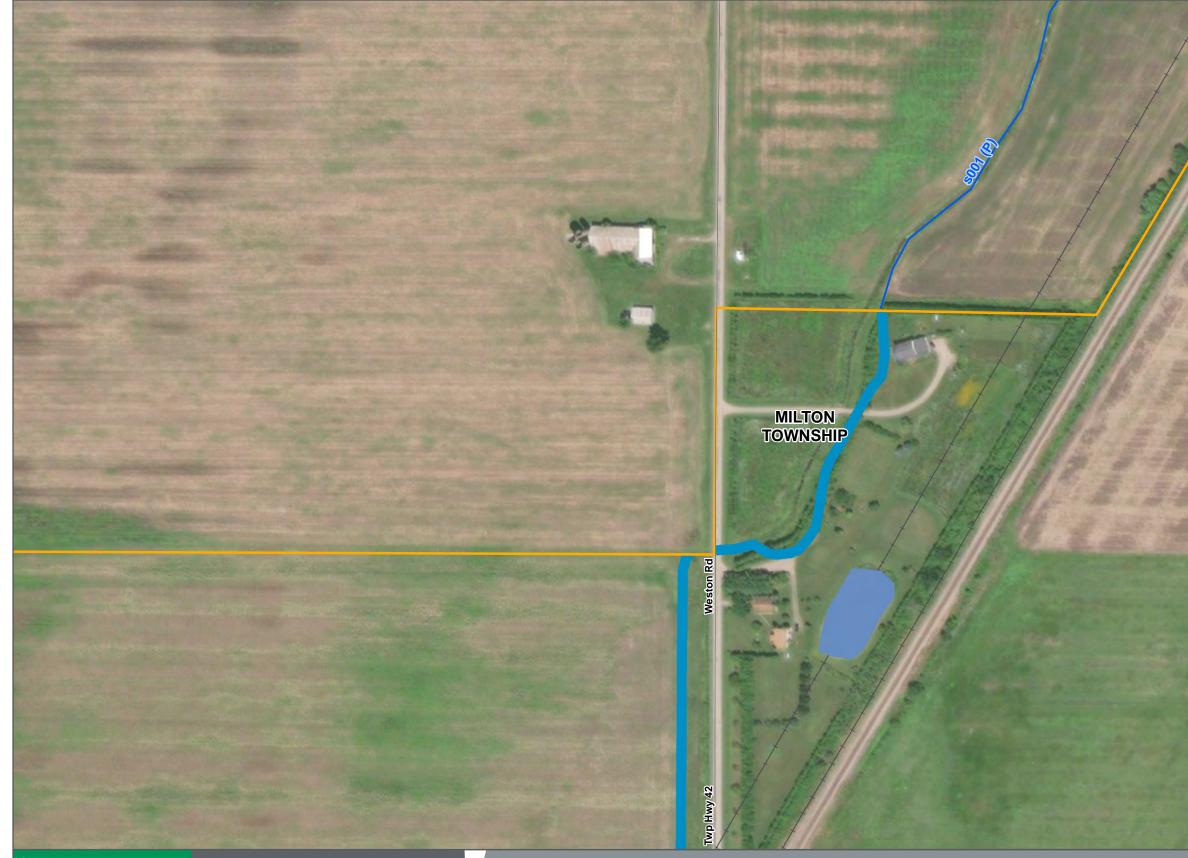






## **Delineated Features (Sheet 8 of 9)**

Juliet Solar Project Wood County, Ohio C Cardno







# **Delineated Features (Sheet 9 of 9)**

Juliet Solar Project Wood County, Ohio



Wetland and Waterbody Delineation Report Juliet Solar Project



# USACE WETLAND DELINEATION FORMS



#### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet				City/	County:		Weston/V	Vood	Sampling [	Date:	10/21/2020
Applicant/Owner:	7X Ener	gy					State:	OH	Sampling Point		dp001	
Investigator(s):	B Hess					Section	, Townsh	ip, Range:		S002 T004N F	R009E	
Landform (hillslope,	terrace, etc.	):		Summit			Local	relief (conca	ave, convex, none)	none		
Slope (%):	1%	Lat:	41.33996	4	Long:			83.801216		Datum:		NAD83
Soil Map Unit Name:	<u>\</u>	Vauseon fin	e sandy loam, 0 to 1	percent sl	opes (WyA)				NWI class	ification:		none
Are climatic / hydrold	ogic conditic	ns on the si	te typical for this time	of year?		Yes X	No	(If no	, explain in Remarl	(s.)		
Are Vegetation	,	Soil	, or Hydrology	signi	ficantly disturbed	1?	Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation	,	Soil	, or Hydrology	natu	rally problematic	?	(If need	ed, explain	any answers in Re	marks.)		
SUMMARY OF	FINDING	S Atta	ch site map sho	wing sa	ampling poin	t locatio	ns, trai	nsects, in	nportant featu	res, etc.		
Hydrophytic Vegeta	ation Preser	nt?	Yes	No	х	Is the Sam	pled Are	a				
Hydric Soil Present	?		Yes	No	х	within a W	/etland?		Yes	No	Х	_
Wetland Hydrology	Present?		Yes	No	Х	If yes, option	onal Wetl	and Site ID:				
Remarks: (Exp	lain alternat	ive procedu	res here or in a sepa	rate repor	t.)							

#### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	fone is required;	check a	all that	apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Living Ro	ots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduction in Tilled Soils	(C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	Х	Depth (inches):		
Water Table Present?	Yes	No	х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	lydrology Present? Yes No X
(includes capillary fringe)						
Remarks:						

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

Sampling Point: dp001

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.				Number of Dominant Crossics That
2.				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3.				
4.				Total Number of Dominant Species Across All Strata 1 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				
		= Total Cover	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3.				FAC species $0 \times 3 = 0$
4.				FACU species 0 x 4 = 0
5.				UPL species 10 x 5 = 50
6.				Column Totals: 10 (A) 50 (B)
7				Prevalence Index = B/A = 5.00
		= Total Cover	r	
Herb Stratum (Plot size: 5 ft. )				
1. Triticum aestivum	10	Yes	UPL	Hydrophytic Vegetation Indicators:
2				Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4				Prevalence Index is $\leq 3.0^{1}$
5				Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of height.
15				
16				<b>Sapling/shrub</b> - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28 ft tall.
20				
	10	= Total Cover	r	Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30 ft.	)			in holyn.
1				Underschutte Verstetten Bresent O
2	. <u> </u>			Hydrophytic Vegetation Present ?
3.	. <u> </u>			No. No. Y
4				Yes No_X_
		= Total Cover	r	
Remarks: (Include photo numbers here or on a separate sheet.)				
1				

#### SOIL

(inches) 0-16"	Color (moist)		Re	dox Featu	ires			
0-16"		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	10YR 3/2	100					Silty Clay	
	<u> </u>							
	<u> </u>							
		<u> </u>					<u> </u>	
				·				
		<u> </u>		·				
					. 2.			
ype: C=Conce /dric Soil Indi		, RM=Red	uced Matrix, MS=Masl	ked Sand G	rainsLoca	ation: PL=Po		ematic Hydric Soils <sup>3</sup> :
Histosol (A			Stripped Matrix (	56)			2 cm Muck (A	-
Histic Epip	,	_	Loamy Mucky Mi	,			Coast Prairie	
Black Histi	. ,	-	Loamy Gleyed M					Peat or Peat (S3)
Hydrogen	Sulfide (A4)		Depleted Matrix (	(F3)			Dark Surface	
Stratified L	ayers (A5)	_	Redox Dark Surfa				Polyvalue Bel	ow Surface (S8)
Depleted B	Below Dark Surface (A	A11)	Depleted Dark St				Thin Dark Sur	
	Surface (A12)	_	Redox Depressio	ons (F8)				se Masses (F12)
	cky Mineral (S1)						Red Parent M	
Sandy Gle	yed Matrix (S4)						Other (Explair	Dark Surface (TF12)
Indicators of hy	drophytic vegetation	and wetlan	d hydrology must be p	present, unle	ess disturbed	l or problen	natic.	
estrictive Laye	er (if observed):							
Туре:								
Depth (incl	nes):					Hvdric So	oil Present?	Yes No X
emarks:						.,		
emarks.								

#### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet				C	ity/County:		Weston/V	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ener	gy					State:	OH	Sampling Point:		dp002	
Investigator(s):	B Hess					Section	, Townsh	ip, Range:		S002 T004N R	009E	
Landform (hillslope, to	errace, etc	.):		Summit			Local	relief (conca	ave, convex, none):	none		
Slope (%):	1%	Lat:	41.34110	65	Lo	ng:		83.799779		Datum:		NAD83
Soil Map Unit Name:	H	loytville clay	/ loam, 0 to 1 percen	t slopes (H	loA)				NWI class	fication:		none
Are climatic / hydrolog	gic conditio	ons on the si	te typical for this time	e of year?		Yes X	No	(If no	, explain in Remark	s.)		
Are Vegetation	,	Soil	, or Hydrology	sign	ificantly distu	rbed?	Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation	,	Soil	, or Hydrology	natu	rally problem	atic?	(If need	ed, explain	any answers in Rer	narks.)		
SUMMARY OF	FINDING	S Atta	ch site map sho	owing sa	ampling p	oint locatio	ns, trar	nsects, in	nportant featu	es, etc.		
Hydrophytic Vegeta	tion Preser	nt?	Yes	No	х	Is the San	pled Are	a				
Hydric Soil Present?	?		Yes	No	Х	within a W	/etland?		Yes	No	Х	
Wetland Hydrology	Present?		Yes	No	Х	If yes, opti	onal Wetl	and Site ID:				
Remarks: (Expl	ain alterna	ive procedu	res here or in a sepa	rate repor	t.)	•						

#### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	fone is required;	check a	all that	apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Living Ro	ots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduction in Tilled Soils	(C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	Х	Depth (inches):		
Water Table Present?	Yes	No	х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	lydrology Present? Yes No X
(includes capillary fringe)						
Remarks:						

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

Sampling Point: dp002

	Abaaluta	Dominant	Indiantor	
	Absolute	Dominant	Indicator	Dominance Test Worksheet:
Tree Stratum (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance rest worksneet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species
4				Across All Strata 1 (B)
5				Percent of Dominant Species That
6.				Are OBL, FACW, or FAC: 0% (A/B)
7.				
		= Total Cover	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	、 <u> </u>			Total % Cover of: Multiply by:
	)			
l				OBL species $0 \times 1 = 0$
2.				FACW species $0 \times 2 = 0$
3				FAC species <u>0</u> x 3 = <u>0</u>
4				FACU species <u>0</u> x 4 = <u>0</u>
5				UPL species 10 x 5 = 50
6				Column Totals: 10 (A) 50 (B)
7.				Prevalence Index = B/A = 5.00
		= Total Cover	r	
Herb Stratum (Plot size: 5 ft. )				
1. Triticum aestivum	10	Yes	UPL	Hydrophytic Vegetation Indicators:
2.		100	012	Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4				Prevalence Index is ≤ 3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide
5				supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic.
10				
11				
				Definitions of Vegetation Strata:
				-
13				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
14				height.
15				
16				<b>Sapling/shrub</b> - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				DBH and greater than 5.20 it (1 iii) tail.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20				ft tall.
	10	= Total Cover	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
 1.	,			
2.				Hydrophytic Vegetation Present ?
2				
				Yee No. Y
4				Yes No_X_
		= Total Cover	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

#### SOIL

(inches) 0-16"	Color (moist)		Re	dox Featu	ires			
0-16"		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	10YR 3/2	100					Silty Clay	
	<u> </u>							
	<u> </u>							
		<u> </u>					<u> </u>	
				·				
		<u> </u>		·				
					. 2.			
ype: C=Conce /dric Soil Indi		, RM=Red	uced Matrix, MS=Masl	ked Sand G	rainsLoca	ation: PL=Po		ematic Hydric Soils <sup>3</sup> :
Histosol (A			Stripped Matrix (	56)			2 cm Muck (A	-
Histic Epip	,	_	Loamy Mucky Mi	,			Coast Prairie	
Black Histi	. ,	-	Loamy Gleyed M					Peat or Peat (S3)
Hydrogen	Sulfide (A4)		Depleted Matrix (	(F3)			Dark Surface	
Stratified L	ayers (A5)	_	Redox Dark Surfa				Polyvalue Bel	ow Surface (S8)
Depleted B	Below Dark Surface (A	A11)	Depleted Dark St				Thin Dark Sur	
	Surface (A12)	_	Redox Depressio	ons (F8)				se Masses (F12)
	cky Mineral (S1)						Red Parent M	
Sandy Gle	yed Matrix (S4)						Other (Explair	Dark Surface (TF12)
Indicators of hy	drophytic vegetation	and wetlan	d hydrology must be p	present, unle	ess disturbed	l or problen	natic.	
estrictive Laye	er (if observed):							
Туре:								
Depth (incl	nes):					Hvdric So	oil Present?	Yes No X
emarks:						.,		
emarks.								

#### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet				City/Coun	ty:	Weston/	Vood	Sampling D	ate: 10/21	/2020
Applicant/Owner:	7X Ener	gy				State:	OH	Sampling Point:		dp003	
Investigator(s):	B Hess				S	ection, Townsh	ip, Range:		S003 T004N R	009E	
Landform (hillslope,	terrace, etc	.):		Summit		Local	relief (conc	ave, convex, none):	none		
Slope (%):	1%	Lat:	41.34248	3	Long:		-83.806275		Datum:	NAD83	3
Soil Map Unit Name	: <u>\</u>	Nauseon fir	ne sandy loam, deep t	o till, 0 to 1	1 percent slopes (Wn/	A)		NWI class	ification:	none	
Are climatic / hydrolo	ogic conditio	ons on the s	ite typical for this time	of year?	Yes	s <u>X</u> No_	(If no	o, explain in Remark	(S.)		
Are Vegetation	,	Soil	, or Hydrology	signi	ficantly disturbed?	Are "No	ormal Circur	nstances" present?	Yes	X No	
Are Vegetation	,	Soil	, or Hydrology	natur	rally problematic?	(If need	led, explain	any answers in Rer	narks.)		
SUMMARY OF	F FINDING	GS Atta	ach site map sho	wing sa	ampling point lo	cations, tra	nsects, ir	nportant featu	res, etc.		
Hydrophytic Vegeta	ation Prese	nt?	Yes	No	X Is th	e Sampled Are	ea				
Hydric Soil Present	ıt?		Yes	No	X with	in a Wetland?		Yes	No	Х	
Wetland Hydrology	y Present?		Yes	No	X If yes	s, optional Wetl	and Site ID	· · · · · · · · · · · · · · · · · · ·			
Remarks: (Exp	olain alterna	tive procedu	ures here or in a sepa	rate report	t.)						

#### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	f one is required;	check a	all that	t apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Living Ro	ots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduction in Tilled Soils	(C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)	ł				FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	х	Depth (inches):		
Water Table Present?	Yes	No	х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	lydrology Present? Yes <u>No X</u>
(includes capillary fringe)						
Remarks:						

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

Sampling Point: dp003

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species
4				Across All Strata 2 (B)
5				Percent of Dominant Species That
6				Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cover	-	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species         0         x 1 =         0
2	• <u> </u>			FACW species $0 \times 2 = 0$
3				FAC species $0 \times 3 = 0$
4				FACU species 65 x 4 = 260
5				UPL species $80 \times 5 = 400$
6				Column Totals: 145 (A) 660 (B)
7		Tatal Causa		Prevalence Index = $B/A = 4.55$
Herb Stratum (Plot size: 5 ft. )		= Total Cover		
1. Zea mays	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Stellaria media	60	Yes	FACU	Rapid Test for Hydrophytic Vegetation
3. Lamium amplexicaule	5	No	UPL	Dominance Test is >50%
4. Poa annua	5	No	FACU	Prevalence Index is $\leq 3.0^{1}$
5.		110	17.00	Morphological Adaptations <sup>1</sup> (Provide
6.				<ul> <li>supporting data in Remarks or on a separate sheet)</li> </ul>
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10				
11				
12.				Definitions of Vegetation Strata:
13.				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20				ft tall.
	145	= Total Cover	Ē	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1				
2				Hydrophytic Vegetation Present ?
3				
4				Yes No_X_
		= Total Cover	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

(inches)	Matrix		Red	dox Featu	ires			
(Inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16"	10YR 3/2	100					Loamy Sand	
	. <u> </u>		·					
			<u> </u>		. <u> </u>			
				. <u> </u>	. <u> </u>		·	
					·			
			·					
			·					
	centration, D=Depletion	i, RM=Redi	uced Matrix, MS=Mask	ed Sand G	rains. <sup>2</sup> Loca	tion: PL=Po	ore Lining, M=Matrix.	lomatia Hudria Saila <sup>3</sup> .
dric Soil In			Stripped Matrix (f	26)			2 cm Muck (/	lematic Hydric Soils <sup>3</sup> :
Histosol Histic Ep	ipedon (A2)		Stripped Matrix (S Loamy Mucky Mir					e Redox (A16)
Black His			Loamy Gleyed Ma					Peat or Peat (S3)
	n Sulfide (A4)	_	Depleted Matrix (I				Dark Surface	
	Layers (A5)	–	Redox Dark Surfa					elow Surface (S8)
	l Below Dark Surface (A Irk Surface (A12)	(11)	Depleted Dark Su Redox Depression				Thin Dark Su	ırface (S9) ese Masses (F12)
	lucky Mineral (S1)		Redux Depression	115 (FO)				Material (F21)
	leyed Matrix (S4)							/ Dark Surface (TF12)
	edox (S5)						Other (Expla	in in Remarks)
ndicators of I	hydrophytic vegetation	and wetlan	d hydrology must be p	resent, unle	ss disturbed	l or problem	natic.	
	yer (if observed):					•		
	iyer (il observed).							
Туре:								
Depth (in	nches):					Hydric So	oil Present?	Yes No X

Project/Site:	Juliet				City/Co	ounty:		Weston/W	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ener	gy					State:	OH	Sampling Point:		dp004	
Investigator(s):	B Hess					Section,	, Townsh	ip, Range:		S003 T004N R	2009E	
Landform (hillslope, te	errace, etc	.):		Summit			Local	relief (conca	ave, convex, none):	none		
Slope (%):	1%	Lat:	41.3415	99	Long:		-	83.806617		Datum:		NAD83
Soil Map Unit Name:	1	Vauseon fi	ne sandy loam, deep	to till, 0 to	1 percent slopes (\	NnA)			NWI class	ification:		none
Are climatic / hydrolog	gic conditio	ons on the	site typical for this time	e of year?		Yes <u>X</u>	No	(If no	, explain in Remark	(S.)		
Are Vegetation	,	Soil	, or Hydrology	sign	ificantly disturbed?		Are "No	rmal Circum	nstances" present?	Yes	X No	
Are Vegetation	,	Soil	, or Hydrology	natu	urally problematic?		(If need	ed, explain a	any answers in Rer	narks.)		
SUMMARY OF	FINDING	GS Att	ach site map sho	owing s	ampling point	locatio	ns, trar	sects, in	nportant featu	res, etc.		
Hydrophytic Vegetat	tion Prese	nt?	Yes	No	X Is	the Sam	pled Are	a				
Hydric Soil Present?	?		Yes	No	X w	vithin a W	etland?		Yes	No	Х	
Wetland Hydrology	Present?		Yes	No	X If	yes, optic	onal Wetla	and Site ID:				
Remarks: (Expla	ain alterna	tive proced	ures here or in a sepa	rate repor	rt.)							

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of	fone is required;	check a	all that	apply)		Surface Soil Cracks (B6)				
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Patterns (B10)				
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)				
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Living Ro	ots (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduction in Tilled Soils	(C6)	Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in Remarks)		Microtopograpic Relief (D4)				
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)				
Field Observations:										
Surface Water Present?	Yes	No	Х	Depth (inches):						
Water Table Present?	Yes	No	х	Depth (inches):						
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	lydrology Present? Yes No X				
(includes capillary fringe)										
Remarks:										

		<b>D</b> · · ·		
	Absolute	Dominant	Indicator	Demission Test Westerland
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1	·			Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
4				Total Number of Dominant Species         Across All Strata       2         (B)
5				Percent of Dominant Species That
6.				Are OBL, FACW, or FAC: 0% (A/B)
7				Barrada a la la constala de set
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3				FAC species <u>5</u> x 3 = <u>15</u>
4				FACU species 30 x 4 = 120
5				UPL species 90 x 5 = 450
6.				Column Totals: 125 (A) 585 (B)
7.				Prevalence Index = B/A = 4.68
		= Total Cove	r	
Herb Stratum (Plot size: 5 ft. )				
1. Zea mays	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Stellaria media	30	Yes	FACU	Rapid Test for Hydrophytic Vegetation
3. Lamium amplexicaule	15	No	UPL	Dominance Test is >50%
4. Ranunculus abortivus	5	No	FAC	Prevalence Index is $\leq 3.0^{1}$
	5	INU	FAC	Morphological Adaptations <sup>1</sup> (Provide
5.	·			supporting data in Remarks or on a separate
6	·			sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8	·			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
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12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of height.
15				in sign.
16	<b>.</b>			Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28 ft tall.
20				it tuit.
	125	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1				
2	<b>.</b>			Hydrophytic Vegetation Present ?
3	<b>.</b>			
4				Yes NoX
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				
、 · · · · · · · · · · · · · · · · · · ·				

0-16*       10YR 3/2       100       Leamy Sand	Depth	Matrix			dox Featu		<u> </u>		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, (S6)         Indicators in this to the total state of total	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)	0-16"	10YR 3/2	100					Loamy Sand	
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
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ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
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ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Redox (S5)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
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ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
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ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)						21			
Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histosol (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Redox (S5)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)			, KIVI=Ked	uceu mainx, mo=masi	ven saun G	ailis. Luca	IUUN. PL=P		ematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Estrictive Layer (if observed):         Type:				Stripped Matrix (	S6)				•
Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Estrictive Layer (if observed):       Yes NoX         Type:        Depth (inches):       Hydric Soil Present?       Yes NoX		. ,	-		,				
Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:         Type:		,	_						. ,
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Comparison of the present of the presen	Hydroge	en Sulfide (A4)	_	Depleted Matrix (	(F3)				
Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         estrictive Layer (if observed):       Type:       No         Depth (inches):       Yes       No       X			_						
Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         estrictive Layer (if observed):       Type:			.11)						
Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Comparison of the present of the p			_	Redox Depressio	ons (F8)				
ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  estrictive Layer (if observed):  Type: Depth (inches): Yes NoX									
estrictive Layer (if observed):           Type:									
estrictive Layer (if observed):           Type:									
Type:            Depth (inches):            Hydric Soil Present?         Yes	Indicators of	hydrophytic vegetation a	and wetlan	d hydrology must be p	oresent, unle	ss disturbed	l or problen	natic.	
Depth (inches):         Hydric Soil Present?         Yes         No         X	estrictive La	ayer (if observed):							
	Type:								
emarks:	Depth (i	nches):					Hydric So	oil Present?	Yes <u> </u>
							1		
	emarks:								
	emarks:								
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Project/Site:	Juliet					City/Co	unty:		Weston/W	/ood	Sampling [	Date:	10/21/2020
Applicant/Owner:	7X Ener	gy						State:	OH	Sampling Point:		dp005	
Investigator(s):	B Hess						Section,	Townsh	p, Range:	:	S003 T004N F	R009E	
Landform (hillslope, ter	rrace, etc	.):	S	Summit				Local	relief (conca	ive, convex, none):	none		
Slope (%): 1	%	Lat:	41.341834	1		Long:			83.808508		Datum:		NAD83
Soil Map Unit Name:	F	Rimer and	Fedrow, till substratum,	loamy fir	ne sands	, 0 to 2 pe	rcent slop	es (RfA)		NWI classi	fication:		none
Are climatic / hydrologi	c conditio	ons on the s	site typical for this time	of year?		١	res X	No	(If no,	explain in Remark	s.)		
Are Vegetation	,	Soil	, or Hydrology	signi	ificantly d	listurbed?		Are "No	rmal Circum	stances" present?	Yes	X No	
Are Vegetation	,	Soil	, or Hydrology	natu	rally prob	lematic?		(If need	ed, explain a	any answers in Ren	- narks.)		
SUMMARY OF F	INDING	GS Att	ach site map sho	wing sa	ampling	g point l	locatio	ns, trar	sects, in	nportant featur	es, etc.		
Hydrophytic Vegetatio	on Preser	nt?	Yes	No	Х	ls	the Sam	pled Are	a				
Hydric Soil Present?			Yes	No	Х	w	ithin a W	etland?		Yes	No	Х	_
Wetland Hydrology Pr	resent?		Yes	No	Х	If	yes, optic	onal Wetla	and Site ID:				
Remarks: (Explai	n alterna	tive proced	ures here or in a separ	ate repor	t.)								

Wetland Hydrology Indicator	s:					Secondary Indicators (	minimum of two required)			
Primary Indicators (minimum o	f one is required;	check	all that	t apply)		Surface Soil Crac	:ks (B6)			
Surface Water (A1)		_		Water-Stained Leaves (B9	)	Drainage Pattern	s (B10)			
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines	(B16)			
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Wate	er Table (C2)			
Water Marks (B1)		_		Hydrogen Sulfide Odor (C	I)	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 T	illed Soils (C6)	Geomorphic Pos	tion (D2)			
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard	Shallow Aquitard (D3)			
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remarks	)	Microtopograpic				
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Tes	t (D5)			
Field Observations:										
Surface Water Present?	Yes	No	х	Depth (inches):						
Water Table Present?	Yes	No	х	Depth (inches):						
Saturation Present?	Yes	No	х	Depth (inches):	Wetland	Hydrology Present?	Yes No X			
(includes capillary fringe)										
Remarks:										

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.				Number of Dominant Species That
2.				Are OBL, FACW, or FAC: 0 (A)
3.				
4.				Total Number of Dominant Species Across All Strata 1 (B)
5.				( /
				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
				Are OBL, FACW, or FAC:(A/B)
7				Prevalence Index worksheet:
		= Total Cove	r	
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species 0 x 1 = 0
2				FACW species 0 x 2 = 0
3				FAC species 0 x 3 = 0
4				FACU species 55 x 4 = 220
5				UPL species 75 x 5 = 375
6				Column Totals: <u>130</u> (A) <u>595</u> (B)
7.				Prevalence Index = B/A = 4.58
		= Total Cove	r	
Herb Stratum (Plot size: 5 ft. )				
1. Zea mays	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Stellaria media	20	No	FACU	Rapid Test for Hydrophytic Vegetation
3. Lepidium virginicum	20	No		
			FACU	Dominance Test is >50% Prevalence Index is ≤ 3.0 <sup>1</sup>
4. Poa annua	10	No	FACU	Morphological Adaptations <sup>1</sup> (Provide
5. <u>Digitaria sanguinalis</u>	5	No	FACU	supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13.				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16				Sapling/shrub - Woody plants less than 3 inches
47				DBH and greater than 3.28 ft (1 m) tall.
17				
18	· ·			<b>Herb</b> - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28 ft tall.
20				
	130	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1				
2.				Hydrophytic Vegetation Present ?
3.				
4.				Yes No X
		= Total Cove		
			1	
Remarks: (Include photo numbers here or on a separate sheet.)				

(inches) ( 0-16" (	<u>Color (moist)</u>	% 100	Color (moist)		ires			
0-16"	10YR 3/1	100		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
							Loamy Sand	
	·							
							·	
	· ·					<u> </u>		
	<u> </u>							
	<u> </u>							
						·		
ype: C=Concent	tration, D=Depletion,	RM=Redu	iced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	ition: PL=Po	ore Lining, M=Matrix.	
dric Soil Indica			·				Indicators for Problem	natic Hydric Soils <sup>3</sup> :
Histosol (A1			Stripped Matrix (	,			2 cm Muck (A10	
Histic Epipe	. ,	_	Loamy Mucky Mi				Coast Prairie Re	
Black Histic			Loamy Gleyed M				5 cm Mucky Pea	
Hydrogen So Stratified Lag			Depleted Matrix ( Redox Dark Surf:				Dark Surface (S Polyvalue Below	
	elow Dark Surface (A	11)	Depleted Dark S				Thin Dark Surface	
	Surface (A12)	/	Redox Depressio				Iron-Manganese	
	xy Mineral (S1)						Red Parent Mate	
	ed Matrix (S4)							ark Surface (TF12)
Sandy Redo	ox (S5)						Other (Explain ir	n Remarks)
Indicators of hyd	rophytic vegetation a	and wetland	d hydrology must be p	present, unle	ss disturbed	l or problem	natic.	
estrictive Layer	r (if observed):							
Туре:								
Depth (inche	es):					Hydric So	bil Present?	Yes <u> </u>
emarks:								

Project/Site:	Juliet					City/County	/:		Weston/W	/ood	Sampling I	Date:	10/21/2020
Applicant/Owner:	7X Ene	rgy					_	State:	OH	Sampling Point:		dp006	6
Investigator(s):	B Hess					Section, Township, Range:				:	S003 T004N R009E		
Landform (hillslope, ter	rrace, etc	.):	S	Summit				Local	relief (conca	ave, convex, none):	convex		
Slope (%): 1	%	Lat:	41.34196	9		Long:		-	83.808917		Datum:		NAD83
Soil Map Unit Name:		Rimer and 1	Fedrow, till substratum,	loamy fir	ne sands,	0 to 2 percen	it slop	es (RfA)		NWI classi	fication:		none
Are climatic / hydrologi	ic conditio	ons on the s	ite typical for this time	of year?		Yes	Х	No	(If no	, explain in Remark	s.)		
Are Vegetation		Soil	, or Hydrology	signi	ficantly d	isturbed?		Are "No	rmal Circum	stances" present?	Yes	X No	
Are Vegetation		Soil	, or Hydrology	natu	rally prob	lematic?		(If neede	ed, explain a	any answers in Ren	narks.)		
SUMMARY OF F		GS Atta	ach site map sho	wing sa	ampling	g point loc	atio	ns, trar	sects, in	nportant featur	es, etc.		
Hydrophytic Vegetatio	on Prese	nt?	Yes	No	х	Is the	Sam	pled Are	a				
Hydric Soil Present?			Yes	No	Х	withir	n a W	etland?		Yes	No	Х	_
Wetland Hydrology P	resent?		Yes	No	Х	If yes,	optio	nal Wetla	and Site ID:				
Remarks: (Explai	in alterna	tive proced	ures here or in a separ	ate report	t.)								

Wetland Hydrology Indicator	s:					Secondary Indicators (I	minimum of two required)			
Primary Indicators (minimum o	f one is required;	check a	all tha	t apply)		Surface Soil Crac	ks (B6)			
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Pattern	s (B10)			
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines	(B16)			
Saturation (A3)				Marl Deposits (B15)		Dry-Season Wate	r Table (C2)			
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Liv	ving Roots (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Reduced Iron (C-	4)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduction in Tille	ed Soils (C6)	Geomorphic Posi	tion (D2)			
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard	(D3)			
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remarks)		Microtopograpic F	Relief (D4)			
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test	(D5)			
Field Observations:										
Surface Water Present?	Yes	No	х	Depth (inches):						
Water Table Present?	Yes	No	х	Depth (inches):						
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	lydrology Present?	Yes No X			
(includes capillary fringe)										
Remarks:										

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1. Morus alba	25	Yes	FACU	Number of Dominant Species That
2. Acer saccharinum	20	Yes	FACW	Are OBL, FACW, or FAC: 1 (A)
3. Celtis occidentalis	10	No	FAC	Total Number of Dominant Species
4. Thuja occidentalis	10	No	FACW	Across All Strata 4 (B)
5. Acer negundo	5	No	FAC	Percent of Dominant Species That
6				Are OBL, FACW, or FAC: 25% (A/B)
7.				
	70	= Total Cover	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1. Lonicera maackii	30	Yes	UPL	OBL species 0 x 1 = 0
2. Celtis occidentalis	5	No	FAC	FACW species <u>30</u> x 2 = <u>60</u>
3				FAC species 30 x 3 = 90
4				FACU species 30 x 4 = 120
5				UPL species 70 x 5 = 350
6.				Column Totals: 160 (A) 620 (B)
7.				Prevalence Index = B/A = 3.88
	35	= Total Cover		
Herb Stratum (Plot size: 5 ft. )				
1. Euonymus fortunei	40	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Toxicodendron radicans	10	No	FAC	Rapid Test for Hydrophytic Vegetation
3. Hesperis matronalis	5	No	FACU	Dominance Test is >50%
4.				Prevalence Index is $\leq 3.0^1$
5.				Morphological Adaptations <sup>1</sup> (Provide
6.				<ul> <li>supporting data in Remarks or on a separate sheet)</li> </ul>
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10.				be present, unless disturbed of problematic.
10				Definitions of Vegetation Strata:
13.				-
				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
15				height.
10				Sapling/shrub - Woody plants less than 3 inches
10				DBH and greater than 3.28 ft (1 m) tall.
17				
18				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28
19				ft tall.
20				
Marsha Mars Otashura (DL)	55	= Total Cover		<b>Woody vines</b> - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30 ft.	)			
1				Undrambatic Venetation Present 2
2		<u> </u>		Hydrophytic Vegetation Present ?
3				Y N N
4				Yes No_X_
		= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				

0-16*       10YR 3/2       100       Leamy Sand	Depth	Matrix			dox Featu		<u> </u>		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, (S6)         Indicators in this to the total state of total	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)	0-16"	10YR 3/2	100					Loamy Sand	
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)								<u> </u>	
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
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Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Redox (S5)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)								·	
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)					<u> </u>				
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)									
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ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)      Redox Depressions (F8)      Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)	<u> </u>								
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)      Redox Depressions (F8)      Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)      Redox Depressions (F8)      Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)      Stripped Matrix (S6)      2 cm Muck (A10)         Histic Epipedon (A2)      Loamy Mucky Mineral (F1)      Coast Prairie Redox (A16)         Black Histic (A3)      Loamy Gleyed Matrix (F2)      S cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)      Depleted Matrix (F3)      Dark Surface (S7)         Stratified Layers (A5)      Redox Dark Surface (F6)      Dolyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Thin Dark Surface (S9)         Thick Dark Surface (A12)      Redox Depressions (F8)      Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)						21			
Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histosol (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Redox (S5)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Other (Explain in Remarks)       Deptet (inches):       Yes NoX			, KIVI=Ked	uceu mainx, mo=masi	ven saun G	ailis. Luca	IUUN. PL=P		ematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Estrictive Layer (if observed):         Type:				Stripped Matrix (	S6)				•
Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Estrictive Layer (if observed):       Yes NoX         Type:        Depth (inches):       Hydric Soil Present?       Yes NoX		. ,	-		,				
Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:         Type:		,	_						. ,
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Comparison of the present of the presen	Hydroge	en Sulfide (A4)	_	Depleted Matrix (	(F3)				
Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         estrictive Layer (if observed):       Type:       No         Depth (inches):       Yes       No       X			_						
Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         estrictive Layer (if observed):       Type:			.11)						
Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Comparison of the present of the p			_	Redox Depressio	ons (F8)				
ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  estrictive Layer (if observed):  Type: Depth (inches): Yes NoX									
estrictive Layer (if observed):           Type:									
estrictive Layer (if observed):           Type:									
Type:            Depth (inches):            Hydric Soil Present?         Yes	Indicators of	hydrophytic vegetation a	and wetlan	d hydrology must be p	oresent, unle	ss disturbed	l or problen	natic.	
Depth (inches):         Hydric Soil Present?         Yes         No         X	estrictive La	ayer (if observed):							
	Type:								
emarks:	Depth (i	nches):					Hydric So	oil Present?	Yes <u> </u>
							1		
	emarks:								
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Project/Site:	Juliet					City/Cou	nty:		Weston/W	/ood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Energy	,						State:	ОН	Sampling Point:		dp007	7
Investigator(s):	B Hess						Section	, Townshi	p, Range:	S	5003 T004N R	009E	
Landform (hillslope, te	errace, etc.):			Summit				Local	relief (conca	ive, convex, none):	none		
Slope (%): 1	1%	Lat:	41.3418	330		Long:		-	83.813339		Datum:		NAD83
Soil Map Unit Name:	Me	rmill-Aurand	complex, 0 to 1	percent slop	oes (MfA)					NWI classif	ication:		none
Are climatic / hydrolog	ic conditions	s on the site ty	pical for this tim	ne of year?		Ye	es X	No	(If no	explain in Remarks	s.)		
Are Vegetation	, S	oil	, or Hydrology	signi	ficantly dis	sturbed?		Are "No	rmal Circum	stances" present?	Yes	X No	
Are Vegetation	, S	oil	, or Hydrology	natur	rally proble	ematic?		(If neede	ed, explain a	any answers in Rem	arks.)		
SUMMARY OF F	FINDING	S Attach	site map sh	owing sa	ampling	point lo	catio	ns, trar	sects, in	nportant featur	es, etc.		
Hydrophytic Vegetati	ion Present?	,	Yes	No	х	ls t	he Sam	pled Are	a				
Hydric Soil Present?			Yes	No	Х	wit	hin a W	etland?		Yes	No	Х	_
Wetland Hydrology P	Present?		Yes	No	Х	lf ye	es, optic	onal Wetla	and Site ID:				
Remarks: (Expla	in alternativ	e procedures	here or in a sep	arate report	t.)								

Wetland Hydrology Indicator	s:						Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	f one is required;	check	all tha	t apply)			Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B1	3)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizosph	neres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduc	ction in Tilled Soils (	C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in F	Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)
Field Observations:							
Surface Water Present?	Yes	No	Х	Depth (inches):			
Water Table Present?	Yes	No	х	Depth (inches):			
Saturation Present?	Yes	No	Х	Depth (inches):		Wetland Hy	vdrology Present? Yes <u>No X</u>
(includes capillary fringe)							
Remarks:							

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2.				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species Across All Strata 1 (B)
4 5.				( ,
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				
···		= Total Cove		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1. <u></u>	,			OBL species $0 \times 1 = 0$
2.				FACW species 0 x 2 = 0
3.				FAC species 0 x 3 = 0
4.				FACU species 0 x 4 = 0
5.				UPL species 75 x 5 = 375
6.				Column Totals: 75 (A) 375 (B)
7.				Prevalence Index = B/A = 5.00
		= Total Cove	r	
Herb Stratum (Plot size: 5 ft. )				
1. Zea mays	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2				Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4				Prevalence Index is $\leq 3.0^{1}$
5				Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
14				height.
15 16				Sepling/abruh Weady plants loss than 2 inches
				<b>Sapling/shrub</b> - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
18 19				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28
20				ft tall.
	75	= Total Cove		Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1.				
2.				Hydrophytic Vegetation Present ?
3.				
4.				Yes NoX_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

C-16*       10YR 3/1       100	Depth	Matrix			dox Featu				
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, KS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix, KS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ype: C=Concentration, D=Depletion, RM=Reduced Matrix (S6)	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:	0-16"	10YR 3/1	100					Sandy Loam	
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:				·,				·	
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
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Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:								·	
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
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Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:									
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Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No       X         Type:						2			
Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histosol (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S9)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):			i, Kivi=Red	uceo matrix, MS=Mas	keu Sand G	rains. Loca	auon: PL=P		atic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:				Stripped Matrix (	S6)				•
Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)			-		,				
Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):         Type:         Depth (inches):         Depth (inches):			_						
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         sandy Redox (S5)       Other (Explain in Remarks)       Very Shallow Dark Surface (TF12)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         estrictive Layer (if observed):       Type:       Very Shallow Dark Surface (TF12)         Depth (inches):       Hydric Soil Present?       Yes NoX	Hydroge	en Sulfide (A4)	_	Depleted Matrix	(F3)				
Thick Dark Surface (A12) Redox Depressions (F8)   Sandy Mucky Mineral (S1) Red Parent Material (F21)   Sandy Gleyed Matrix (S4) Very Shallow Dark Surface (TF12)   Sandy Redox (S5) Other (Explain in Remarks)			_						
Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         estrictive Layer (if observed):       Type:       No         Depth (inches):       Hydric Soil Present?       Yes       No       X			A11) _						
Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Image: Comparison of the present of the p			-	Redox Depression	ons (F8)				
Other (Explain in Remarks)Other (Explain in Rem									
ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes NoX									
estrictive Layer (if observed):									
estrictive Layer (if observed):									
Type:									
Depth (inches):     Hydric Soil Present?     Yes     No     X	Indicators of	hydrophytic vegetation	and wetlan	d hydrology must be p	present, unle	ess disturbed	d or problen	natic.	
		· · · -	and wetlan	d hydrology must be p	present, unle	ess disturbed	d or problen	natic.	
	estrictive La	· · · -	and wetlan	d hydrology must be p	present, unle	ess disturbed	d or problen	natic.	
	estrictive La	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			íes No X
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es NoX
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es NoX
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es No <u>X</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			′es NoX
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			′es No <u>X</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			′es No <u>X</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			′es No <u>X</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			′es No <u>X</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es No <u>X</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es No <u>X</u>
	estrictive La	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es No <u>X</u>
	Restrictive La Type: Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es <u>NoX</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es NoX
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			′es NoX
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es <u>NoX</u>
	estrictive La Type: _ Depth (i	ayer (if observed):	and wetlan	d hydrology must be p	present, unle	ess disturbed			'es NoX

Project/Site:	Juliet			City/County:		Weston/V	Vood	Sampling Da	te: 10/21/2020
Applicant/Owner:	7X Energy				State:	OH	Sampling Point:		dp008
Investigator(s):	B Hess			Section	, Townsh	ip, Range:		S003 T004N R0	09E
Landform (hillslope, ter	race, etc.):		Summit		Local	relief (conca	ave, convex, none):	none	
Slope (%): 1	%	Lat: 4	1.337277	Long:		-83.814934		Datum:	NAD83
Soil Map Unit Name:	Wa	useon fine sandy loan	n, 0 to 1 percent	slopes (WyA)			NWI classi	fication:	none
Are climatic / hydrologi	c conditions	s on the site typical for	this time of year?	Yes X	No	(If no	, explain in Remark	s.)	
Are Vegetation	, S	oil, or Hydro	ologysig	nificantly disturbed?	Are "No	rmal Circum	nstances" present?	Yes	K_No
Are Vegetation	, S	oil, or Hydro	ologynat	urally problematic?	(If need	ed, explain	any answers in Rer	narks.)	
SUMMARY OF F	INDING	6 Attach site ma	ap showing s	ampling point locatio	ns, trai	nsects, in	nportant featur	es, etc.	
Hydrophytic Vegetatio	on Present?	Yes	No	X Is the San	npled Are	ea			
Hydric Soil Present?		Yes	X No	within a V	vetland?		Yes	No	х
Wetland Hydrology Pr	resent?	Yes	No	X If yes, opti	onal Wetl	and Site ID:			
Remarks: (Explain	n alternativ	e procedures here or ir	n a separate repo	rt.)					

Wetland Hydrology Indicators	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one is required;	check a	all that	apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Living Root	ts (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduction in Tilled Soils (	C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	х	Depth (inches):		
Water Table Present?	Yes	No	х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland Hy	ydrology Present? Yes <u>No X</u>
(includes capillary fringe)						
B						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Kemarks:						
Kemarks:						
Kemarks:						
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Kemarks:						
Kemarks:						
Kemarks:						

	Absolute	Dominant	Indicator	
Tree Stratum_ (Plot size: 30 ft)	% Cover	Species?	Status	Dominance Test Worksheet:
1.				Number of Dominant Spacing That
2.			·······	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3.				
				Total Number of Dominant Species
4				Across All Strata 1 (B)
5				Percent of Dominant Species That
6				Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1 (FIOCOLO:	/			$\begin{array}{c} \hline \\ \hline $
I				
2.				FACW species <u>0</u> x 2 = <u>0</u>
3				FAC species 0 x 3 = 0
4				FACU species <u>0</u> x 4 = <u>0</u>
5				UPL species 10 x 5 = 50
6.				Column Totals: 10 (A) 50 (B)
7.	_			Prevalence Index = B/A = 5.00
···		= Total Cove		
Herb Stratum (Plot size: 5 ft. )				
1. Triticum aestivum	10	Yes	UPL	Hydrophytic Vegetation Indicators:
2.				Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4.				Prevalence Index is ≤ 3.0 <sup>1</sup>
5.	_			Morphological Adaptations <sup>1</sup> (Provide
6.				supporting data in Remarks or on a separate
				sheet)
7			·	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13.				_
				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
				height.
15			·	
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20	_			ft tall.
	10	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	\ <u></u>		I	in height.
Woody Vine Stratum (Plot size: 30 ft.	_)			
1				
2				Hydrophytic Vegetation Present ?
3				
4				Yes NoX
		= Total Cove	r	
Pomarka: (Include abote numbere bare or on a concrete aboet )				
Remarks: (Include photo numbers here or on a separate sheet.)				

Depth	Matrix		Re	dox Featu				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-8"	10YR 3/1	100					Silt Loam	
8-16"	10YR 4/2	90	10YR 4/6	10	С	М	Silty Clay	
	·							
						. <u> </u>		
	centration, D=Depletior	n, RM=Red	uced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	ation: PL=Po		encette libertete O. 11. 3
lydric Soil In			Oteles - J.M. (1.1.	66)				ematic Hydric Soils <sup>3</sup> :
Histosol Histic Er	(A1) pipedon (A2)	-	Stripped Matrix ( Loamy Mucky Mi				2 cm Muck (A Coast Prairie	
Black Hi		-	Loamy Gleyed M					Peat or Peat (S3)
Hydroge		_	X Depleted Matrix	(F3)			Dark Surface	(S7)
	en Sulfide (A4)	_						
Stratified	d Layers (A5)	_	Redox Dark Surf	ace (F6)				ow Surface (S8)
Stratified X Depleted	d Layers (A5) d Below Dark Surface (/		Redox Dark Surf Depleted Dark S	ace (F6) urface (F7)			Thin Dark Su	rface (S9)
Stratified X Depleted Thick Da	d Layers (A5) d Below Dark Surface (/ ark Surface (A12)		Redox Dark Surf	ace (F6) urface (F7)			Thin Dark Su	rface (S9) ese Masses (F12)
Stratified X Depleted Thick Da Sandy M	d Layers (A5) d Below Dark Surface (/		Redox Dark Surf Depleted Dark S	ace (F6) urface (F7)			Thin Dark Sun Iron-Mangane Red Parent M	rface (S9) ese Masses (F12)
Stratified X Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /lucky Mineral (S1)		Redox Dark Surf Depleted Dark S	ace (F6) urface (F7)			Thin Dark Sun Iron-Mangane Red Parent M	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
Stratified X Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /lucky Mineral (S1) Sleyed Matrix (S4)	 A11)	Redox Dark Surf Depleted Dark S	ace (F6) urface (F7)			Thin Dark Sur Iron-Mangane Red Parent M Very Shallow	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
Stratified X Depleted Thick Da Sandy W Sandy G	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /lucky Mineral (S1) Sleyed Matrix (S4)	- A11) _ -	Redox Dark Surf Depleted Dark S	ace (F6) urface (F7)			Thin Dark Sur Iron-Mangane Red Parent M Very Shallow	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /lucky Mineral (S1) Sleyed Matrix (S4)		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed	d or problem	Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed	d or problem:	Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5)		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed	d or problem:	Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed	d or problem:	Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12)
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Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Complete Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of testrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of testrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of estrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of testrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Complete Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Blndicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Bindicators of Restrictive La	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratified X Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Blndicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Complete Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)
Stratifiec X Depleted Thick Da Sandy M Sandy G Sandy R Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) /lucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Redox Dark Surf	ace (F6) urface (F7) ons (F8)	ess disturbed		Thin Dark Sur Iron-Mangane Red Parent M Very Shallow Other (Explain atic.	rface (S9) ese Masses (F12) laterial (F21) Dark Surface (TF12) n in Remarks)

Project/Site:	Juliet					City/County:		Weston/V	Vood	Sampling I	Date:	10/21/2020
Applicant/Owner:	7X Ener	gy					State:	OH	Sampling Point	:	dp009	9
Investigator(s):	B Hess					Section	n, Townsh	ip, Range:		S003 T004N F	R009E	
Landform (hillslope,	terrace, etc	.):		Summit			Local	relief (conca	ave, convex, none)	: concave		
Slope (%):	4%	Lat:	41.34097	3		Long:		83.809760		Datum:		NAD83
Soil Map Unit Name:	: .	Spinks loamy	fine sand, 2 to 6 pe	rcent slop	es (SsB)				NWI class	ification:		none
Are climatic / hydrold	ogic conditio	ons on the sit	te typical for this time	of year?		Yes X	No	(If no	, explain in Remarl	ks.)		
Are Vegetation	,	Soil	, or Hydrology	sign	ificantly dis	sturbed?	Are "No	rmal Circum	nstances" present?	Yes	X No	D
Are Vegetation	,	Soil	, or Hydrology	natu	rally probl	ematic?	(If need	ed, explain	any answers in Re	marks.)		
SUMMARY OF	FINDING	GS Atta	ch site map sho	wing s	ampling	point locatio	ns, trai	nsects, in	nportant featu	res, etc.		
Hydrophytic Vegeta	ation Prese	nt?	Yes	No	х	Is the San	npled Are	a				
Hydric Soil Present	?		Yes	No	Х	within a V	vetland?		Yes	No	Х	_
Wetland Hydrology	Present?		Yes	No	Х	lf yes, opti	onal Wetl	and Site ID:				
Remarks: (Exp	lain alterna	tive procedu	res here or in a sepa	rate repor	rt.)							

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum o	f one is required;	check	all tha	t apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (B9	)	Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (C	1)	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 T	illed Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remarks	)	Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	Х	Depth (inches):		
Water Table Present?	Yes	No	Х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	ydrology Present? Yes <u>No X</u>
(includes capillary fringe)						
Remarks:						

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.		<u>_</u>		
				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species
4.				Across All Strata 2 (B)
5.				
				Percent of Dominant Species That
6				Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
	, 	Vaa	FACU	
1. Juglans nigra	65	Yes	FACU	OBL species <u>0</u> x 1 = <u>0</u>
2				FACW species 0 x 2 = 0
3.				FAC species         0         x 3 =         0
4.				FACU species 65 x 4 = 260
				UPL species 85 x 5 = 425
6				Column Totals: <u>150</u> (A) <u>685</u> (B)
7				Prevalence Index = $B/A = 4.57$
	65	= Total Cove	r	
Herb Stratum (Plot size: 5 ft. )				
	80	Yes	UPL	Hydrophytic Vegetation Indicators:
1. Bromus inermis				
2. Lamium purpureum	5	No	UPL	Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4.				Prevalence Index is $\leq 3.0^1$
5.				Morphological Adaptations <sup>1</sup> (Provide
				supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				<sup>1</sup> Indiantara of hudria and unational hudrology must
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				be present, unless disturbed of problematic.
10				
11				
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
				diameter at breast height (DBH), regardless of
				height.
15				
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
10				<b>Hark</b> All harkscare (non-woods) plants
	·	·		<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28
19				ft tall.
20				
	85	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
```````````	, ,			
1				
2				Hydrophytic Vegetation Present ?
3.				
4.				Yes No X
		= Total Cove		
			1	
Remarks: (Include photo numbers here or on a separate sheet.)				

0.16*       10YR 3/2       100       Loamy Sand	Depth	Matrix			dox Featu	,			
Image: Section of the section of th	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Vers Shallow Dark Surface (TF12)         Depth (inches):	0-16"	10YR 3/2	100					Loamy Sand	
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Vers Shallow Dark Surface (TF12)         Depth (inches):									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Vers Shallow Dark Surface (TF12)         Depth (inches):									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):									
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Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Suffide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Suffide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Suffide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):				·					
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):	<u> </u>								
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Suffide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:									
Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Suffide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:									
ydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Depth (inches):			DM Ded			21			
Histosol (A1)       Stripped Matrix (S6)       2 cm Muck (A10)         Histosol (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)			, KIVI=Kedi	uceo iviatrix, MS=Masl	keu sand G	ains. Loca	uon: PL=P		ematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)       Loamy Mucky Mineral (F1)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.          estrictive Layer (if observed):       Type:	-			Stripped Matrix (	56)				•
Black Histic (A3)       Loamy Gleyed Matrix (F2)       5 cm Mucky Peat or Peat (S3)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)       Dark Surface (S7)         Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Estrictive Layer (if observed):       Yes NoX         Type:        Depth (inches):       Yes NoX       Yes NoX					,				
Stratified Layers (A5)       Redox Dark Surface (F6)       Polyvalue Below Surface (S8)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):         Type:         Depth (inches):         Depth (inches):		,							
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thin Dark Surface (S9)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12)         Sandy Mucky Mineral (S1)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:         Type:	Hydroge	en Sulfide (A4)	_	Depleted Matrix (	F3)				
Thick Dark Surface (A12) Redox Depressions (F8)   Sandy Mucky Mineral (S1) Red Parent Material (F21)   Sandy Gleyed Matrix (S4) Very Shallow Dark Surface (TF12)   Sandy Redox (S5) Other (Explain in Remarks)			_						
Sandy Mucky Mineral (S1)       Red Parent Material (F21)         Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Other (Explain in Remarks)         estrictive Layer (if observed):       Type:       No         Depth (inches):       Hydric Soil Present?       Yes       No       X			.11)						
Sandy Gleyed Matrix (S4)       Very Shallow Dark Surface (TF12)         Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:       No         Depth (inches):       Hydric Soil Present?       Yes       No       X			_	Redox Depressio	ins (F8)				
Sandy Redox (S5)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):         Type:         Depth (inches):         Hydric Soil Present?         Yes									
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes NoX									
estrictive Layer (if observed):									
estrictive Layer (if observed):									
estrictive Layer (if observed):									
Type:	Indicators of	hydrophytic vegetation a	and wetlan	d hydrology must be p	resent, unle	ss disturbed	l or problen	natic.	
Depth (inches):         Hydric Soil Present?         Yes         No         X	estrictive La	ayer (if observed):							
Depth (inches):         Hydric Soil Present?         Yes         No         X	Type:								
	Type.				<u> </u>				
emarke:	Depth (i	nches):					Hydric So	oil Present?	Yes No X
Enans.	emarks:								

Project/Site:	Juliet					City/County:		Weston/V	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ene	rgy					State:	ОН	Sampling Point:		dp010	
Investigator(s):	B Hess					Sectio	n, Townsh	ip, Range:		S003 T004N R	009E	
Landform (hillslope,	terrace, etc	c.):	Stre	eam Terra	се		Local	relief (conc	ave, convex, none):	none		
Slope (%):	1%	Lat:	41.33775	54		Long:		-83.824291		Datum:		NAD83
Soil Map Unit Name:		Hoytville clay	loam, 0 to 1 percent	t slopes (H	HoA)				NWI class	ification:		none
Are climatic / hydrold	ogic conditi	ons on the si	te typical for this time	e of year?		Yes X	No	(If no	, explain in Remark	(S.)		
Are Vegetation		, Soil	, or Hydrology	sign	ificantly d	listurbed?	Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation		, Soil	, or Hydrology	natu	urally prob	ematic?	(If need	ed, explain	any answers in Rer	marks.)		
SUMMARY OF	FINDIN	GS Atta	ch site map sho	owing sa	ampling	g point locatio	ons, trai	nsects, ir	nportant featu	res, etc.		
Hydrophytic Vegeta	ation Prese	ent?	Yes	No	Х	Is the Sa	npled Are	a				
Hydric Soil Present	?		Yes	No	Х	within a V	Vetland?		Yes	No	Х	
Wetland Hydrology	Present?		Yes	No	Х	If yes, opt	ional Wetl	and Site ID:				
Remarks: (Exp	lain alterna	ative procedu	res here or in a sepa	rate repor	rt.)	•						
1												

Wetland Hydrology Indicator	s:						Secondary Indicators (minimum of two required)				
Primary Indicators (minimum o	f one is required;	check	all that		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)		_		Marl Deposits (B15	5)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide C	Ddor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizosph	eres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Reduc	ed Iron (C4)		Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduc	tion in Tilled Soils (	C6)	Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface	(C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in R	emarks)		Microtopograpic Relief (D4)				
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)				
Field Observations:											
Surface Water Present?	Yes	No	Х	Depth (inches):							
Water Table Present?	Yes	No	х	Depth (inches):							
Saturation Present?	Yes	No	Х	Depth (inches):		Wetland H	lydrology Present? Yes No X				
(includes capillary fringe)											
Remarks:											

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1 2.				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
3 4.				Total Number of Dominant Species
4 5.				()
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)
7.			·	
		= Total Cove		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)		•	Total % Cover of: Multiply by:
1.	,			$\begin{array}{c c c c c c c c c c c c c c c c c c c $
2.				FACW species $50 \times 2 = 100$
3.				FAC species $0 \times 3 = 0$
4.				FACU species 0 x 4 = 0
5.				UPL species 65 x 5 = 325
6.				Column Totals: 115 (A) 425 (B)
7.				Prevalence Index = $B/A = 3.70$
		= Total Cove	r	
Herb Stratum_(Plot size: 5 ft)				
1. Zea mays	65	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Panicum dichotomiflorum	50	Yes	FACW	Rapid Test for Hydrophytic Vegetation
3.				Dominance Test is >50%
4.				Prevalence Index is $\leq 3.0^1$
5.				Morphological Adaptations <sup>1</sup> (Provide
6.				<ul> <li>supporting data in Remarks or on a separate sheet)</li> </ul>
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic.
10.				
11				
12.				Definitions of Vegetation Strata:
13.				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16 17	<u> </u>			Sapling/shrub - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20				ft tall.
	115	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1.				
2.				Hydrophytic Vegetation Present ?
3.				
4				Yes NoX_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				1

Depth	Matrix		Re	dox Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16"	10YR 3/2	100					Loamy Sand	
						<u> </u>		
						·		
								-
	centration, D=Depletior	n, RM=Red	uced Matrix, MS=Masl	ked Sand Gra	ains. <sup>2</sup> Loca	ation: PL=P	ore Lining, M=Matrix.	
dric Soil Ind								blematic Hydric Soils <sup>3</sup> :
Histosol (	(A1) ipedon (A2)	_	Stripped Matrix ( Loamy Mucky Mi				2 cm Muck (	(A10) e Redox (A16)
Black His		-	Loamy Gleyed M					Peat or Peat (S3)
	n Sulfide (A4)	_	Depleted Matrix (				Dark Surfac	
Stratified	Layers (A5)	_	Redox Dark Surfa	ace (F6)				elow Surface (S8)
Denlated	Below Dark Surface (A	A11)	Depleted Dark St	urface (F7)			Thin Dark S	urface (S9)
		· -						
Thick Da	rk Surface (A12)	· _	Redox Depressio	ons (F8)				nese Masses (F12)
Thick Da Sandy M	lucky Mineral (S1)	-		ons (F8)			Red Parent	Material (F21)
Thick Da Sandy M Sandy G		-		ons (F8)			Red Parent Very Shallov	
Thick Da Sandy M Sandy G	lucky Mineral (S1) leyed Matrix (S4)	-		ons (F8)			Red Parent Very Shallov	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy G	lucky Mineral (S1) leyed Matrix (S4)	-		ons (F8)			Red Parent Very Shallov	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy Gl Sandy Re	lucky Mineral (S1) leyed Matrix (S4) edox (S5)	-	Redox Depressic		es disturbos	t or problem	Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy Gi Sandy Re ndicators of h	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation	-	Redox Depressic		ss disturbec	d or problen	Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy G Sandy R Sandy R	lucky Mineral (S1) leyed Matrix (S4) edox (S5)	-	Redox Depressic		ss disturbed	d or problem	Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy Gi Sandy Re	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation	-	Redox Depressic		ss disturbed	d or problen	Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of H estrictive La	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		s disturbec		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Indicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		s disturbec		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R Indicators of H estrictive La	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Indicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R ndicators of P estrictive La Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)
Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Type: Depth (in	lucky Mineral (S1) leyed Matrix (S4) edox (S5) hydrophytic vegetation hyer (if observed):	-	Redox Depressic		ss disturbed		Red Parent Very Shallov Other (Expla	Material (F21) w Dark Surface (TF12) ain in Remarks)

Project/Site:	Juliet					City/County:		Weston/V	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ene	rgy					State:	OH	Sampling Point:	:	dp011	
Investigator(s):	B Hess					Section	n, Townsh	ip, Range:		S003 T004N R	2009E	
Landform (hillslope,	terrace, etc	c.):		Summit			Local	relief (conca	ave, convex, none)	: none		
Slope (%):	1%	Lat:	41.33868	39		Long:		83.821759		Datum:		NAD83
Soil Map Unit Name:	: _	Mermill-Aura	nd complex, 0 to 1 p	ercent slo	pes (MfA)				NWI class	ification:		none
Are climatic / hydrold	ogic conditi	ons on the sit	e typical for this time	e of year?		Yes X	No	(If no	, explain in Remark	ks.)		
Are Vegetation		, Soil	, or Hydrology	sign	ificantly dis	sturbed?	Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation		, Soil	, or Hydrology	natu	rally proble	ematic?	(If need	ed, explain	any answers in Rei	marks.)		
SUMMARY OF	FINDIN	GS Atta	ch site map sho	owing sa	ampling	point locatio	ns, trai	nsects, in	nportant featu	res, etc.		
Hydrophytic Vegeta	ation Prese	nt?	Yes	No	х	Is the San	npled Are	a				
Hydric Soil Present	?		Yes	No	Х	within a W	vetland?		Yes	No	Х	_
Wetland Hydrology	Present?		Yes	No	Х	lf yes, opti	onal Wetl	and Site ID:				-
Remarks: (Exp	lain alterna	tive procedu	es here or in a sepa	rate repor	t.)	•						

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)				
Primary Indicators (minimum o	f one is required;	check	all that	apply)		Surface Soil Cracks (B6)				
Surface Water (A1)		_		Water-Stained Leaves (E	39)	Drainage Patterns (B10)				
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)				
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide Odor (	C1)	Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizospheres of	on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Reduced Iro	n (C4)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduction in	Tilled Soils (C6)	Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remar	(S)	Microtopograpic Relief (D4)				
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)				
Field Observations:										
Surface Water Present?	Yes	No	Х	Depth (inches):						
Water Table Present?	Yes	No	Х	Depth (inches):						
Saturation Present?	Yes	No	Х	Depth (inches):	Wet	and Hydrology Present? Yes No X				
(includes capillary fringe)										
Remarks:										

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3.				Total Number of Dominant Species
4.				Across All Strata 1 (B)
5.				
				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
	•			
7				Durandan an Inden workels ant
		= Total Cove	•	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1	·			OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3				FAC species 0 x 3 = 0
4				FACU species $15 \times 4 = 60$
5.				UPL species 75 x 5 = 375
6.				Column Totals: 90 (A) 435 (B)
7.				Prevalence Index = $B/A = 4.83$
		= Total Cove		
Llook Chrotume (Distainer Eff				
Herb Stratum (Plot size: 5 ft. )				The local action Manual attack in the Paratase
1. Zea mays		Yes	UPL	Hydrophytic Vegetation Indicators:
2. Digitaria sanguinalis	10	No	FACU	Rapid Test for Hydrophytic Vegetation
3. <u>Stellaria media</u>	5	No	FACU	Dominance Test is >50%
4	·			Prevalence Index is $\leq 3.0^1$
5				Morphological Adaptations <sup>1</sup> (Provide
6.				<ul> <li>supporting data in Remarks or on a separate sheet)</li> </ul>
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				
9.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				be present, unless disturbed of problematic.
10	·			
11				
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15	·			height.
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants,
20	·			ft tall.
		- Total Cava		Weedwines All weedwines greater than 2.29 ft
Wester View Oraclause (DL / )	90	= Total Cove		Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30 ft.	)			
1	·			
2				Hydrophytic Vegetation Present ?
3				
4				Yes NoX
		= Total Cove	•	
Remarks: (Include photo numbers here or on a separate sheet.)				

(inches)	Matrix		Red	dox Featu	ires			
(Inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16"	10YR 3/2	100					Loamy Sand	
	. <u> </u>		·					
			<u> </u>		. <u> </u>			
					. <u> </u>		·	
					·			
			·					
			·					
	centration, D=Depletion	i, RM=Redi	uced Matrix, MS=Mask	ed Sand G	rains. <sup>2</sup> Loca	tion: PL=Po	ore Lining, M=Matrix.	lomatia Hudria Saila <sup>3</sup> .
dric Soil In			Stripped Matrix (f	26)			2 cm Muck (/	lematic Hydric Soils <sup>3</sup> :
Histosol Histic Ep	ipedon (A2)		Stripped Matrix (S Loamy Mucky Mir					e Redox (A16)
Black His			Loamy Gleyed Ma					Peat or Peat (S3)
	n Sulfide (A4)	_	Depleted Matrix (I				Dark Surface	
	Layers (A5)	–	Redox Dark Surfa					elow Surface (S8)
	l Below Dark Surface (A Irk Surface (A12)	(11)	Depleted Dark Su Redox Depression				Thin Dark Su	ırface (S9) ese Masses (F12)
	lucky Mineral (S1)		Redux Depression	115 (FO)				Material (F21)
	leyed Matrix (S4)							/ Dark Surface (TF12)
	edox (S5)						Other (Expla	in in Remarks)
ndicators of I	hydrophytic vegetation	and wetlan	d hydrology must be p	resent, unle	ss disturbed	l or problem	natic.	
	yer (if observed):					•		
	iyer (il observed).							
Туре:								
Depth (in	nches):					Hydric So	oil Present?	Yes No X

Project/Site:	Juliet			City/Co	unty:		Weston/W	/ood	Sampling D	ate: 1	0/21/2020
Applicant/Owner:	7X Energy					State:	ОН	Sampling Point:		dp012	
Investigator(s):	B Hess				Section	Townsh	p, Range:	S	003 T004N R	009E	
Landform (hillslope, te	rrace, etc.):		Stream Terrac	e		Local	relief (conca	ive, convex, none): <u>r</u>	none		
Slope (%): 1	1% L	.at: 41.33	6976	Long:			83.824400		Datum:	N	AD83
Soil Map Unit Name:	Hoyt	ville clay loam, 0 to 1 perc	ent slopes (H	loA)				NWI classif	cation:	r	none
Are climatic / hydrologi	ic conditions o	n the site typical for this t	ime of year?	Ň	/es_X	No	(If no	explain in Remarks	.)		
Are Vegetation	, Soil	, or Hydrology	signi	ficantly disturbed?		Are "No	rmal Circum	stances" present?	Yes	X_No	
Are Vegetation	, Soil	, or Hydrology	natu	rally problematic?		(If need	ed, explain a	any answers in Rem	arks.)		
SUMMARY OF F	INDINGS -	- Attach site map s	howing sa	ampling point	locatio	ns, trar	sects, in	nportant feature	es, etc.		
Hydrophytic Vegetati	on Present?	Yes	No	X Is	the Sam	pled Are	a				
Hydric Soil Present?		Yes	No	X w	ithin a W	etland?		Yes	No	Х	
Wetland Hydrology P	Present?	Yes	No	X If	yes, optic	onal Wetla	and Site ID:				
Remarks: (Explai	in alternative p	procedures here or in a se	eparate report	i.)							

Wetland Hydrology Indicator	s:						Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of	f one is required;	check	all that	t apply)			Surface Soil Cracks (B6)				
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)				
High Water Table (A2)		_		Aquatic Fauna (B1	13)		Moss Trim Lines (B16)				
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)				Oxidized Rhizosph	heres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)				Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Redu	ction in Tilled Soils (	C6)	X Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in F	Remarks)		Microtopograpic Relief (D4)				
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)				
Field Observations:											
Surface Water Present?	Yes	No	х	Depth (inches):							
Water Table Present?	Yes	No	Х	Depth (inches):							
Saturation Present?	Yes	No	х	Depth (inches):		Wetland Hy	lydrology Present? Yes No X				
(includes capillary fringe)											
Remarks:											

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 1 (A)
4.				Total Number of Dominant Species Across All Strata <u>2</u> (B)
5				Percent of Dominant Species That
6 7				Are OBL, FACW, or FAC: <u>50%</u> (A/B)
		= Total Cove	er	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species 0 x 1 = 0
2				FACW species 50 x 2 = 100
3				FAC species 0 x 3 = 0
4				FACU species 0 x 4 = 0
5				UPL species 65 x 5 = 325
6				Column Totals: 115 (A) 425 (B)
7				Prevalence Index = B/A = 3.70
		= Total Cove	r	
<u>Herb Stratum</u> (Plot size: <u>5 ft.</u> ) 1. Zea mays	65	Yes	UPL	Hydrophytic Vegetation Indicators:
Zea mays     Zea mays     Zea mays     Zea mays	50	Yes	FACW	Rapid Test for Hydrophytic Vegetation
3.	50	163	FACW	Dominance Test is >50%
				Prevalence Index is $\leq 3.0^{1}$
				Morphological Adaptations <sup>1</sup> (Provide
5				supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10		·		
11				Definitions of Vagatation Strata
12				Definitions of Vegetation Strata:
13				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
14 15				height.
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28 ft tall.
20				
Woody Vine Stratum (Plot size: 30 ft.	115	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft in height.
1	)			
2.				Hydrophytic Vegetation Present ?
3.				
4				Yes NoX_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

	ription: (Describe to th	ne depth ne				the absen	ce of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	dox Featu %	ures Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	· · · · · · ·			/0	турс			Kemano
0-8"	10YR 3/1	100					Sandy Loam	
8-16"	10YR 3/2	100					Loamy Sand	
							·	
		<u> </u>				·		
							· ·	
<sup>1</sup> Type: C=Cor	ncentration, D=Depletio	n, RM=Red	uced Matrix, MS=Mask	ked Sand G	rains. <sup>2</sup> Loca	ation: PL=P	ore Lining, M=Matrix.	
Hydric Soil I			,					lematic Hydric Soils <sup>3</sup> :
Histoso	. ,	_	Stripped Matrix (S				2 cm Muck (A	
	pipedon (A2) istic (A3)	_	Loamy Mucky Mir Loamy Gleyed Mir	. ,				Redox (A16) Peat or Peat (S3)
	en Sulfide (A4)		Depleted Matrix (				Dark Surface	
	d Layers (A5)	_	Redox Dark Surfa					low Surface (S8)
	d Below Dark Surface (	A11) _	Depleted Dark Su				Thin Dark Su	
	ark Surface (A12) /lucky Mineral (S1)	-	Redox Depressio	ins (F8)				ese Masses (F12) ⁄laterial (F21)
	Gleyed Matrix (S4)							v Dark Surface (TF12)
	Redox (S5)						Other (Explai	in in Remarks)
3Indicators of	hydrophytic vegetation	and wetlan	d hydrology must be p	resent, unle	ess disturbed	d or problen	natic.	
Restrictive L	ayer (if observed):							
Type:								
Depth (	inches):					Hydric S	oil Present?	Yes No X
	<u> </u>					inyane o		
Remarks:								

Project/Site:	Juliet				City/Co	unty:		Weston/V	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ene	ergy					State:	OH	Sampling Point	:	dp101	
Investigator(s):	K Hillie	r				Section,	Townsh	ip, Range:		S034 T005N R	009E	
Landform (hillslope,	terrace, et	c.):	٦	oeslope			Local	relief (conca	ave, convex, none)	: none		
Slope (%):	1%	Lat:	41.34495	9	Long:			-83.806896		Datum:		NAD83
Soil Map Unit Name	e:	Ottokee-Spi	inks loamy fine sands,	0 to 2 pe	ercent slopes (OtB)				NWI class	ification:		none
Are climatic / hydrol	ogic condit	ions on the s	site typical for this time	of year?	' Y	res X	No	(If no	, explain in Remarl	ks.)		
Are Vegetation		, Soil	, or Hydrology	sigr	nificantly disturbed?		Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation		, Soil	, or Hydrology	nat	urally problematic?		(If need	ed, explain	any answers in Re	marks.)		
SUMMARY OF	F FINDIN	GS Atta	ach site map sho	wing s	ampling point l	ocatior	ns, trai	nsects, in	nportant featu	res, etc.		
Hydrophytic Veget	tation Prese	ent?	Yes	No	X Is	the Sam	pled Are	a				
Hydric Soil Presen	nt?		Yes	No	X wi	thin a W	etland?		Yes	No	Х	_
Wetland Hydrology	y Present?		Yes	No	X If	yes, optio	nal Wetl	and Site ID:				-
Remarks: (Exp	olain alterna	ative proced	ures here or in a sepa	ate repo	rt.)							

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)						
Primary Indicators (minimum o	f one is required;	check	all that		Surface Soil Cracks (B6)							
Surface Water (A1)		_		Water-Stained Lea	ves (B9)		Drainage Patterns (B10)					
High Water Table (A2)		_		Aquatic Fauna (B1	3)		Moss Trim Lines (B16)					
Saturation (A3)		_		Marl Deposits (B15	5)		Dry-Season Water Table (C2)					
Water Marks (B1)		_		Hydrogen Sulfide C	Odor (C1)		Crayfish Burrows (C8)					
Sediment Deposits (B2)		_		Oxidized Rhizosph	eres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)		_		Presence of Reduc	ced Iron (C4)		Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)		_		Recent Iron Reduc	tion in Tilled Soils (	C6)	Geomorphic Position (D2)					
Iron Deposits (B5)		_		Thin Muck Surface	(C7)		Shallow Aquitard (D3)					
Inundation Visible on Aer	al Imagery (B7)	_		Other (Explain in R	lemarks)		Microtopograpic Relief (D4)					
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)					
Field Observations:												
Surface Water Present?	Yes	No	х	Depth (inches):								
Water Table Present?	Yes	No	х	Depth (inches):								
Saturation Present?	Yes	No	Х	Depth (inches):		Wetland Hy	ydrology Present? Yes <u>No X</u>					
(includes capillary fringe)												
Remarks:												

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1. Morus alba	55	Yes	FACU	
	20	Yes		Number of Dominant Species That
	20	Tes	FACU	Are OBL, FACW, or FAC: <u>3</u> (A)
3.				Total Number of Dominant Species
4.				Across All Strata(B)
5.				Percent of Dominant Species That
6				Are OBL, FACW, or FAC: <u>43%</u> (A/B)
7				
	75	= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )	)			Total % Cover of: Multiply by:
1. Morus alba	15	Yes	FACU	OBL species <u>3</u> x 1 = <u>3</u>
2. <u>Ulmus rubra</u>	10	Yes	FAC	FACW species <u>10</u> x 2 = <u>20</u>
3				FAC species 23 x 3 = 69
4				FACU species 90 x 4 = 360
5				UPL species 25 x 5 = 125
6				Column Totals: 151 (A) 577 (B)
7				Prevalence Index = B/A = 3.82
	25	= Total Cove	r	
Herb Stratum (Plot size: 5 ft. )				
1. Bromus inermis	25	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Geum canadense	10	Yes	FAC	Rapid Test for Hydrophytic Vegetation
3. Mentha spicata	10	Yes	FACW	Dominance Test is >50%
4. Carex grisea	3	No	FAC	Prevalence Index is $\leq 3.0^1$
5. Amaranthus tuberculatus	3	No	OBL	Morphological Adaptations <sup>1</sup> (Provide
6.			·······	supporting data in Remarks or on a separate sheet)
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10				
				Definitions of Vegetation Strata:
				-
				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
14				height.
15				Continue (about a Wards about a loss than 0 in the
16				<b>Sapling/shrub</b> - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				
18				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28
19			. <u> </u>	ft tall.
20				
	51	= Total Cove	r	<b>Woody vines</b> - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30 ft. )	)			
1				
2				Hydrophytic Vegetation Present ?
3				
4				Yes NoX
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

(inches) 0-16"	Matrix		Re	dox Featu	ires			
0-16"	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	10YR 4/3	100					Sandy Loam	
<u> </u>								
<u> </u>				<u> </u>				
· .								
vpe: C=Conc	entration, D=Depletion	. RM=Red	uced Matrix. MS=Mas	ked Sand G	rains. <sup>2</sup> l oca	tion: PI =P	ore Lining. M=Matrix	
ydric Soil Ind		,	,		2000		Indicators for Problen	natic Hydric Soils <sup>3</sup> :
Histosol (	A1)	_	Stripped Matrix (	S6)			2 cm Muck (A10	))
```	pedon (A2)	_	Loamy Mucky Mi				Coast Prairie Re	. ,
Black Hist		_	Loamy Gleyed M				5 cm Mucky Pea	
	Sulfide (A4)		Depleted Matrix (				Dark Surface (S	
	Layers (A5) Below Dark Surface (A	.11)	Redox Dark Surf				Polyvalue Below Thin Dark Surfa	
	k Surface (A12)		Redox Depressio				Iron-Manganese	
	ucky Mineral (S1)			- ( - )			Red Parent Mat	
Sandy Glo	eyed Matrix (S4)						Very Shallow Da	ark Surface (TF12)
Sandy Re	edox (S5)						Other (Explain in	n Remarks)
Indicators of h	ydrophytic vegetation a	and wetlan	d hydrology must be p	oresent, unle	ess disturbed	d or problem	natic.	
	/er (if observed):							
-								
Type:								
Depth (ind	ches):					Hydric So	oil Present?	Yes No X
emarks:						+		

Project/Site:	Juliet				City/C	ounty:		Weston/W	/ood	Sampling [	Date:	10/21/2020
Applicant/Owner:	7X Energ	у					State:	ОН	Sampling Point:		dp102	
Investigator(s):	K Hillier					Section,	, Townshi	p, Range:		S034 T005N R	R009E	
Landform (hillslope, te	errace, etc.)	:		Summit		Local relief (concave, convex, none): none						
Slope (%):	1%	Lat:	41.34629	92	Long:		-	83.806652		Datum:		NAD83
Soil Map Unit Name:	W	auseon fin	e sandy loam, deep t	to till, 0 to	1 percent slopes (	WnA)			NWI class	ification:		none
Are climatic / hydrolog	gic condition	is on the si	te typical for this time	e of year?		Yes X	No	(If no	, explain in Remark	(S.)		
Are Vegetation	, s	Soil	, or Hydrology	signi	ificantly disturbed?	,	Are "No	mal Circum	stances" present?	Yes	X No	
Are Vegetation	, 5	Soil	, or Hydrology	natu	rally problematic?		(If neede	ed, explain a	any answers in Rer	marks.)		
SUMMARY OF	FINDING	S Atta	ch site map sho	owing sa	ampling point	locatio	ns, trar	sects, in	nportant featu	res, etc.		
Hydrophytic Vegetat	tion Present	?	Yes	No	X	s the Sam	pled Are	a				
Hydric Soil Present?	?		Yes	No	X	vithin a W	etland?		Yes	No	Х	_
Wetland Hydrology I	Present?		Yes	No	X li	yes, optic	onal Wetla	and Site ID:				-
Remarks: (Expla	ain alternativ	/e procedu	res here or in a sepa	rate repor	t.)							

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)						
Primary Indicators (minimum o	f one is required;	check	all that		Surface Soil Cracks (B6)							
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)					
High Water Table (A2)		_		Aquatic Fauna (B1	13)		Moss Trim Lines (B16)					
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)					
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)					
Sediment Deposits (B2)		_		Oxidized Rhizosph	neres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)		_		Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)		_		Recent Iron Reduc	ction in Tilled Soils (	C6)	Geomorphic Position (D2)					
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)					
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in F	Remarks)		Microtopograpic Relief (D4)					
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)					
Field Observations:												
Surface Water Present?	Yes	No	Х	Depth (inches):								
Water Table Present?	Yes	No	х	Depth (inches):								
Saturation Present?	Yes	No	х	Depth (inches):		Wetland H	lydrology Present? Yes <u>No X</u>					
(includes capillary fringe)												
Remarks:												

[	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.	70 00101	opoolooi	oratuo	
				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3.				
4.				Total Number of Dominant Species Across All Strata 1 (B)
5.				、
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				(* )
		= Total Cove		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1.				OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3.				FAC species $0 \times 3 = 0$
4.				FACU species 0 x 4 = 0
5.				UPL species 75 x 5 = 375
6.				Column Totals: 75 (A) 375 (B)
7.				Prevalence Index = B/A = 5.00
		= Total Cove	r	
Herb Stratum (Plot size: <u>5 ft.</u> )				
1. Glycine max	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2				Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4				Prevalence Index is $\leq 3.0^1$
5				Morphological Adaptations <sup>1</sup> (Provide
6.				supporting data in Remarks or on a separate sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28 ft tall.
20				n (an.
	75	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: <u>30 ft.</u>	)			in height.
1				
2				Hydrophytic Vegetation Present ?
3				
4				Yes No_X_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

Depth	Matrix		Re	dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10"	10YR 3/1	100					Sandy Loam	
10-18"	10YR 4/3	90	10YR 5/6	10	с	m	Sandy Clay	
10 10			1011(0/0					
	. <u> </u>	<u> </u>				·		
	centration, D=Depletior	n, RM=Red	uced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	ation: PL=Po		
lydric Soil Ir			Outran di Martini	<b>C</b> (2)				ematic Hydric Soils <sup>3</sup> :
Histosol	i (A1) pipedon (A2)	-	Stripped Matrix ( Loamy Mucky Mi				2 cm Muck (A Coast Prairie	
	istic (A3)	_	Loamy Gleyed N	. ,				Peat or Peat (S3)
	en Sulfide (A4)	_	Depleted Matrix				Dark Surface	
	d Layers (A5)	_	Redox Dark Surf					ow Surface (S8)
	d Below Dark Surface (/ ark Surface (A12)	A11) _	Depleted Dark S Redox Depression				Thin Dark Sur	race (S9) ese Masses (F12)
	/ucky Mineral (S1)	-		,			Red Parent M	
	Gleyed Matrix (S4)							Dark Surface (TF12)
Sandy F	Redox (S5)						Other (Explain	n in Remarks)
BIndicators of	hydrophytic vegetation	and wetlan	d hydrology must be p	present, unle	ess disturbed	d or problem	natic.	
Restrictive L	ayer (if observed):							
Type:								
_							11 Barris 10	No. No. Y
Depth (i	ncnes):					Hydric So	oil Present?	Yes <u>No X</u>
Remarks:								

Project/Site:	Juliet				City/Cou	unty:		Weston/W	Vood	Sampling I	Date:	10/21/2020
Applicant/Owner:	7X Ener	gy					State:	ОН	Sampling Point		dp103	3
Investigator(s):	K Hillier					Section, T	ownshi	ip, Range:		S034 T005N F	R009E	
Landform (hillslope,	terrace, etc	.):		Summit			Local	relief (conca	ave, convex, none)	none		
Slope (%):	1%	Lat:	41.34642	22	Long:		-	83.812946		Datum:		NAD83
Soil Map Unit Name	e: <u>\</u>	Nauseon fi	ne sandy loam, deep t	to till, 0 to	1 percent slopes (W	'nA)			NWI class	ification:		none
Are climatic / hydrole	ogic conditio	ons on the s	site typical for this time	e of year?	Y	es X	No	(If no	, explain in Remarl	(s.)		
Are Vegetation	,	Soil	, or Hydrology	sign	ificantly disturbed?	ŀ	Are "No	rmal Circum	nstances" present?	Yes	X No	D
Are Vegetation	,	Soil	, or Hydrology	natu	arally problematic?	(	If need	ed, explain a	any answers in Re	marks.)		
SUMMARY OF	F FINDING	GS Atta	ach site map sho	wing s	ampling point le	ocations	s, trar	sects, in	nportant featu	res, etc.		
Hydrophytic Veget	ation Prese	nt?	Yes	No	X Ist	the Samp	led Are	a				
Hydric Soil Presen	nt?		Yes	No	X wit	thin a Wet	land?		Yes	No	Х	_
Wetland Hydrology	y Present?		Yes	No	X If y	es, option	al Wetla	and Site ID:				
Remarks: (Exp	plain alterna	tive proced	ures here or in a sepa	rate repoi	rt.)							

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)						
Primary Indicators (minimum o	f one is required;	check	all that		Surface Soil Cracks (B6)							
Surface Water (A1)		_		Water-Stained Lea	ves (B9)		Drainage Patterns (B10)					
High Water Table (A2)		_		Aquatic Fauna (B1	3)		Moss Trim Lines (B16)					
Saturation (A3)		_		Marl Deposits (B15	5)		Dry-Season Water Table (C2)					
Water Marks (B1)		_		Hydrogen Sulfide C	Odor (C1)		Crayfish Burrows (C8)					
Sediment Deposits (B2)		_		Oxidized Rhizosph	eres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)		_		Presence of Reduc	ced Iron (C4)		Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)		_		Recent Iron Reduc	tion in Tilled Soils (	C6)	Geomorphic Position (D2)					
Iron Deposits (B5)		_		Thin Muck Surface	(C7)		Shallow Aquitard (D3)					
Inundation Visible on Aer	al Imagery (B7)	_		Other (Explain in R	lemarks)		Microtopograpic Relief (D4)					
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)					
Field Observations:												
Surface Water Present?	Yes	No	х	Depth (inches):								
Water Table Present?	Yes	No	х	Depth (inches):								
Saturation Present?	Yes	No	Х	Depth (inches):		Wetland Hy	ydrology Present? Yes No X					
(includes capillary fringe)												
Remarks:												

	AL 1.	<b>D</b> · · ·		
	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3.				Total Number of Dominant Species
4.				Across All Strata 1 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				
/				Prevalence Index worksheet:
		= Total Cove	r	
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species 0 x 1 = 0
2.				FACW species 10 x 2 = 20
3				FAC species 0 x 3 = 0
4.				FACU species 0 x 4 = 0
				UPL species 75 x 5 = 375
5				Column Totals: 85 (A) 395 (B)
7				Prevalence Index = $B/A = 4.65$
		= Total Cove	r	
Herb Stratum (Plot size: 5 ft. )				
1. Glycine max	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Carex grayi	10	No	FACW	Rapid Test for Hydrophytic Vegetation
3.				Dominance Test is >50%
				Prevalence Index is $\leq 3.0^{1}$
			<u> </u>	Morphological Adaptations <sup>1</sup> (Provide
5				supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic.
10				
				Definitions of Verstetion Strates
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28
19	• •			ft tall.
20				
	85	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1.				
2.				Hydrophytic Vegetation Present ?
2				
				Vee Ne Y
4				Yes No_X_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				·

SOIL

Depth	Matrix		Re	dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-11"	10YR 3/2	100					Silt Loam	
11-18"	10YR 4/3	90	10YR 5/6	10	с	m	Silty Clay Loam	
					<u> </u>		<u> </u>	
							<u> </u>	
							<u> </u>	
	centration, D=Depletion	n, RM=Red	uced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	ation: PL=P		atia Hudria Caila <sup>3</sup> -
Hydric Soil I			Stripped Metrics (	56)			Indicators for Problem 2 cm Muck (A10	-
Histosol	pipedon (A2)	_	Stripped Matrix ( Loamy Mucky Mi				Coast Prairie Re	
	istic (A3)	_	Loamy Gleyed N	. ,			5 cm Mucky Pea	
	en Sulfide (A4)	_	Depleted Matrix				Dark Surface (S	
	d Layers (A5) d Bolow Dork Surfood (	<u> </u>	Redox Dark Surf				Polyvalue Below Thin Dark Surfac	
	d Below Dark Surface (/ ark Surface (A12)	ATT) _	Depleted Dark S Redox Depression				Iron-Manganese	
	Aucky Mineral (S1)	_		- ( - )			Red Parent Mate	
	Gleyed Matrix (S4)							rk Surface (TF12)
Sandy F	Redox (S5)						Other (Explain in	Remarks)
3Indicators of	hydrophytic vegetation	and wetlan	d hydrology must be p	present, unle	ess disturbed	d or probler	natic.	
Restrictive L	ayer (if observed):							
Type:								
-								<i>,</i>
Depth (i	nches):					Hydric S	oil Present?	/es NoX
Remarks:								

### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet					City/County:	Weston/Wood			Sampling Date: 10/21/2		10/21/2020	
Applicant/Owner:	7X Energ	у					State: OH Sampling Point:			:	dp104		
Investigator(s):	K Hillier					Section, Township, Range:				S034 T005N R009E			
Landform (hillslope, t	terrace, etc.)	:		Summit		Local relief (concave, convex, none): none							
Slope (%):	1%	Lat:	41.35015	7	I	Long:		-83.823456		Datum:		NAD83	
Soil Map Unit Name:	Map Unit Name: Mermill-Aurand complex, 0 to 1 percent slopes (MfA								NWI class	sification:		none	
Are climatic / hydrolo	ogic condition	ns on the s	ite typical for this time	of year?		Yes X	No	(If no	, explain in Remar	ks.)			
Are Vegetation	,	Soil	, or Hydrology	sign	ificantly dis	turbed?	Are "No	rmal Circum	nstances" present?	Yes	X No	D	
Are Vegetation	,	Soil	, or Hydrology	natu	arally proble	oblematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF	FINDING	S Atta	ch site map sho	wing s	ampling	point locatio	ons, trai	nsects, in	nportant featu	res, etc.			
Hydrophytic Vegeta	ation Presen	t?	Yes	No	х	Is the San	npled Are	a					
Hydric Soil Present	?		Yes	No	Х	within a W	Vetland?		Yes	No	Х		
Wetland Hydrology	Present?		Yes	No	Х	lf yes, opti	onal Wetl	and Site ID:					
Remarks: (Exp	lain alternati	ve procedu	ires here or in a sepa	rate repor	rt.)	<u>.</u>							

### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)					
Primary Indicators (minimum o	f one is required;	check	all that	t apply)		Surface Soil Cracks (B6)					
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)				
High Water Table (A2)		_		Aquatic Fauna (B1	13)		Moss Trim Lines (B16)				
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizosph	neres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduc	ction in Tilled Soils (	C6)	Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)	_		Microtopograpic Relief (D4)							
Sparsely Vegetated Concave Surface (B8)							FAC-Neutral Test (D5)				
Field Observations:											
Surface Water Present?	Yes	No	Х	Depth (inches):							
Water Table Present?	Yes	No	х	Depth (inches):							
Saturation Present?	Yes	No	х	Depth (inches):		Wetland H	lydrology Present? Yes <u>No X</u>				
(includes capillary fringe)											
Remarks:											

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

Sampling Point: dp104

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.				
				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species
4				Across All Strata 3 (B)
5.				Descent of Deminent Creation That
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )	)			Total % Cover of: Multiply by:
1. Elaeagnus umbellata	5	Yes	UPL	OBL species 0 x 1 = 0
2.				FACW species $0 \times 2 = 0$
3				FAC species <u>10</u> x 3 = <u>30</u>
4				FACU species <u>48</u> x 4 = <u>192</u>
5				UPL species 43 x 5 = 215
6.				Column Totals: 101 (A) 437 (B)
7.				Prevalence Index = $B/A = 4.33$
		Tatal Cava		
	5	= Total Cove	ſ	
Herb Stratum (Plot size: <u>5 ft.</u> )				
1. Setaria faberi	35	Yes	FACU	Hydrophytic Vegetation Indicators:
2. Bromus inermis	35	Yes	UPL	Rapid Test for Hydrophytic Vegetation
3. Toxicodendron radicans	10	No	FAC	Dominance Test is >50%
4. Cirsium arvense	10	No	FACU	Prevalence Index is $\leq 3.0^1$
				Morphological Adaptations <sup>1</sup> (Provide
5. Solidago canadensis	3	No	FACU	supporting data in Remarks or on a separate
6. Physalis heterophylla	3	No	UPL	sheet)
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				1
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13.				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
				height.
15			·	
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
	·······		·······	regardless of size, and woody plants less than 3.28
				ft tall.
20			·	
	96	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft. )	)			in height.
1.				
2.				Hydrophytic Vegetation Present ?
3				×
4				Yes NoX
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				
internatives, internate priore numbers here of on a separate sheet.				

SOIL

Depth	Matrix		Re	dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-22"	10YR 3/2	100					Silt Loam	
22-28"	10YR 4/2	95	10YR 4/6	5	с	m	Silty Clay Loam	
22 20	1011( 4/2		1011( 4/0				Sitty Clay Loan	
						<u> </u>		
				·				
<sup>1</sup> Type: C=Con	centration, D=Depletior	n, RM=Red	luced Matrix, MS=Masl	ked Sand G	rains. <sup>2</sup> Loca	ation: PL=P	ore Lining, M=Matrix	
Hydric Soil In			, -			-	Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol		_	Stripped Matrix (	,			2 cm Muck	
Histic Ep Black His	pipedon (A2)	-	Loamy Mucky Mi Loamy Gleyed M	. ,				ie Redox (A16) y Peat or Peat (S3)
	en Sulfide (A4)	-	Depleted Matrix (				Dark Surfac	
				()				
Stratified	d Layers (A5)	-	Redox Dark Surfa	ace (F6)			Polyvalue E	Below Surface (S8)
	. ,	- 411)	Redox Dark Surfa				Thin Dark S	Surface (S9)
Depleted Thick Da	d Layers (A5) d Below Dark Surface (/ ark Surface (A12)	- 411)		urface (F7)			Thin Dark S	Surface (S9) Inese Masses (F12)
Depleted Thick Da Sandy M	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /ucky Mineral (S1)	411) _	Depleted Dark St	urface (F7)			Thin Dark S Iron-Manga Red Parent	Surface (S9) inese Masses (F12) Material (F21)
Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (A ark Surface (A12) Aucky Mineral (S1) Gleyed Matrix (S4)	- 411) _ -	Depleted Dark St	urface (F7)			Thin Dark S Iron-Manga Red Parent Very Shallo	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /ucky Mineral (S1)	- - - - -	Depleted Dark St	urface (F7)			Thin Dark S Iron-Manga Red Parent Very Shallo	Surface (S9) inese Masses (F12) Material (F21)
Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (A ark Surface (A12) Aucky Mineral (S1) Gleyed Matrix (S4)	- - - - -	Depleted Dark St	urface (F7)			Thin Dark S Iron-Manga Red Parent Very Shallo	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depletec Thick Da Sandy M Sandy G Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5)	-	Depleted Dark St	urface (F7) ons (F8)	uss disturber	h or problem	Thin Dark S Thin Dark S Tron-Manga Red Parent Very Shallc Other (Expl	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of	d Layers (A5) d Below Dark Surface (A ark Surface (A12) Aucky Mineral (S1) Sleyed Matrix (S4) Redox (S5)	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed	d or problem	Thin Dark S Thin Dark S Tron-Manga Red Parent Very Shallc Other (Expl	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5)	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed	d or problem	Thin Dark S Thin Dark S Tron-Manga Red Parent Very Shallc Other (Expl	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of	d Layers (A5) d Below Dark Surface (A ark Surface (A12) Aucky Mineral (S1) Sleyed Matrix (S4) Redox (S5)	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed	d or problem	Thin Dark S Thin Dark S Tron-Manga Red Parent Very Shallc Other (Expl	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S Thin Dark S Tron-Manga Red Parent Very Shallc Other (Expl	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletecc Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depletec Thick Da Sandy M Sandy G Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):	-	Depleted Dark St	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) inese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)

### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet					City/Cou	nty:	Weston/Wood			Sampling Date: 10/21/20		10/21/2020
Applicant/Owner:	7X Energy	/						State:	ОН	Sampling Point:		dp105	5
Investigator(s):	K Hillier					Section, Township, Range: Section, Sect				6034 T005N R009E			
Landform (hillslope, te	rrace, etc.):			Summit		Local relief (concave, convex, none): none					none		
Slope (%): 1	1%	Lat:	41.3459	183	I	_ong:	.ong: -83.821622						NAD83
Soil Map Unit Name:	Me	ermill-Aurand	complex, 0 to 1 p	percent slop	es (MfA)					NWI classif	ication:		none
Are climatic / hydrolog	ic condition	s on the site t	ypical for this tim	ie of year?		Ye	es X	No	(If no	explain in Remarks	s.)		
Are Vegetation	, S	ioil	, or Hydrology	signif	ficantly dis	turbed?		Are "No	rmal Circum	stances" present?	Yes	X No	
Are Vegetation	, S	oil	, or Hydrology	natur	ally proble	matic?		(If neede	ed, explain a	any answers in Rem	arks.)		
SUMMARY OF F	FINDING	3 Attach	site map sh	owing sa	mpling	point lo	catio	ns, trar	sects, in	portant feature	es, etc.		
Hydrophytic Vegetati	on Present?	?	Yes	No	х	ls t	he Sam	pled Are	a				
Hydric Soil Present?			Yes	No	Х	with	hin a W	etland?		Yes	No	Х	_
Wetland Hydrology P	Present?		Yes	No	Х	lf ye	es, optic	onal Wetla	and Site ID:				
Remarks: (Expla	in alternativ	e procedures	here or in a sepa	arate report	.)								

### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of	f one is required;	check	all tha	t apply)		Surface Soil Cracks (B6)					
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)				
High Water Table (A2)		_		Aquatic Fauna (B1	3)		Moss Trim Lines (B16)				
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizosph	neres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduc	ction in Tilled Soils (	C6)	Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in F	Remarks)		Microtopograpic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)							FAC-Neutral Test (D5)				
Field Observations:											
Surface Water Present?	Yes	No	Х	Depth (inches):							
Water Table Present?	Yes	No	х	Depth (inches):							
Saturation Present?	Yes	No	Х	Depth (inches):		Wetland Hy	vdrology Present? Yes <u>No X</u>				
(includes capillary fringe)											
Remarks:											

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

Sampling Point: dp105

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.				Number of Dominant Species That
2.				Are OBL, FACW, or FAC: 0 (A)
3.				· · ·
4.				Total Number of Dominant Species Across All Strata 1 (B)
5.				Across All Strata(B)
		·		Percent of Dominant Species That
6				Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1.				OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3.			ı	FAC species $0 \times 3 = 0$
		······		FACU species $10 \times 4 = 40$
4 5.				
6				Column Totals: 85 (A) 415 (B)
7				Prevalence Index = $B/A = 4.88$
		= Total Cover	r	
Herb Stratum (Plot size: 5 ft. )				
1. Glycine max	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Cirsium arvense	10	No	FACU	Rapid Test for Hydrophytic Vegetation
3.				Dominance Test is >50%
4.				Prevalence Index is $\leq 3.0^{1}$
5.		·		Morphological Adaptations <sup>1</sup> (Provide
				supporting data in Remarks or on a separate
6		<u> </u>		sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13.				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in
				diameter at breast height (DBH), regardless of
				height.
15				
16		<u> </u>		Sapling/shrub - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				DDi rand greater than 5.20 it (1 iii) tail.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20				ft tall.
	85	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
<u> </u>	, ,			
2.		·		Hydrophytic Vegetation Present ?
				Tydrophytic vegetation Present ?
3				X N
4				Yes NoX_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

### SOIL

Profile Desci	ription: (Describe to th	e depth ne	eded to document th	e indicator	or confirm	the absen	ce of indicators.)	
Depth	Matrix			dox Featu				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12"	10YR 3/1	100					Silt Loam	
12-18"	10YR 4/3	55					Silty Clay Loam	
	10YR 5/6	45				. <u></u>	Silty Clay Loam	
							·	
		<u> </u>				<u> </u>		
	·	·		·		·		
	. <u> </u>	<u> </u>				<u> </u>		
	centration, D=Depletion	BM-Red	uced Matrix MS-Masl	ked Sand G	rains <sup>2</sup> Loca	tion: PI -P	ore Lining M-Matrix	
Hydric Soil I		i, itil=iteu						lematic Hydric Soils <sup>3</sup> :
Histoso		_	Stripped Matrix (				2 cm Muck (#	
	pipedon (A2) istic (A3)	_	Loamy Mucky Mi Loamy Gleyed M					e Redox (A16) Peat or Peat (S3)
	en Sulfide (A4)	_	Depleted Matrix (				Dark Surface	
	d Layers (A5)		Redox Dark Surfa					elow Surface (S8)
	d Below Dark Surface ( ark Surface (A12)	A11) _	Depleted Dark Su Redox Depression				Thin Dark Su	ırface (S9) ese Masses (F12)
	Mucky Mineral (S1)	_		,no (1 0)				Material (F21)
	Gleyed Matrix (S4)							/ Dark Surface (TF12)
Sandy H	Redox (S5)						Other (Explain	in in Remarks)
2Indicators of	hydrophytic vogotation	and wotlan	d hydrology must be p	rocont unk	oc dicturbo	l or problog	aatia	
	hydrophytic vegetation ayer (if observed):	and wettan	a nyarology must be p	nesent, unit			ialic.	
	- <b>,</b> (							
Туре:								
Depth (i	nches):					Hydric So	oil Present?	Yes <u>No X</u>
Remarks:								

### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet					City/County:	Weston/Wood			Sampling D	ate:	10/21/2020	
Applicant/Owner:	7X Ene	ergy					State:	ОН	Sampling Point		dp106		
Investigator(s):	K Hillie	r				Section, Township, Range:					S034 T005N R009E		
Landform (hillslope,	terrace, et	c.):		Summit		Local relief (concave, convex, none): none							
Slope (%):	1%	Lat:	41.34556	4	L	_ong:		-83.824679	Datum:	1	NAD83		
Soil Map Unit Name	nit Name: Mermill-Aurand complex, 0 to 1 percent slopes (MfA) NWI class								ification:		none		
Are climatic / hydrole	ogic condit	ions on the s	ite typical for this time	of year?		Yes X	No	(If no	, explain in Remarl	ks.)			
Are Vegetation		, Soil	, or Hydrology	sigr	nificantly dist	turbed?	Are "No	rmal Circun	nstances" present?	Yes	X No		
Are Vegetation		, Soil	, or Hydrology	nati	urally proble	matic?	(If need	ed, explain	any answers in Re	marks.)			
SUMMARY OF	FINDIN	GS Atta	ach site map sho	wing s	ampling	point locatio	ns, trai	nsects, ir	nportant featu	res, etc.			
Hydrophytic Veget	ation Prese	ent?	Yes	No	х	Is the San	npled Are	ea					
Hydric Soil Presen	ıt?		Yes	No	Х	within a W	vetland?		Yes	No	х		
Wetland Hydrology	y Present?		Yes	No	Х	If yes, opti	onal Wetl	and Site ID:					
Remarks: (Exp	olain alterna	ative procedu	ures here or in a sepa	rate repo	rt.)	•							

### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)					
Primary Indicators (minimum o	f one is required;	check	all that	t apply)		Surface Soil Cracks (B6)					
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)				
High Water Table (A2)		_		Aquatic Fauna (B1	13)		Moss Trim Lines (B16)				
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)				
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_		Oxidized Rhizosph	neres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		_		Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)		_		Recent Iron Reduc	ction in Tilled Soils (	C6)	Geomorphic Position (D2)				
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)				
Inundation Visible on Aeri	al Imagery (B7)	_		Microtopograpic Relief (D4)							
Sparsely Vegetated Concave Surface (B8)							FAC-Neutral Test (D5)				
Field Observations:											
Surface Water Present?	Yes	No	Х	Depth (inches):							
Water Table Present?	Yes	No	х	Depth (inches):							
Saturation Present?	Yes	No	х	Depth (inches):		Wetland H	lydrology Present? Yes <u>No X</u>				
(includes capillary fringe)											
Remarks:											

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

Sampling Point: dp106

[	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 ft. )	% Cover	Species?	Status	Dominance Test Worksheet:
1.				Number of Deminent Creation That
2.				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3.				
4.				Total Number of Dominant Species Across All Strata 1 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
7.				· · ·
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1.				OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3.				FAC species $0 \times 3 = 0$
4.				FACU species 0 x 4 = 0
5.				UPL species 75 x 5 = 375
6.				Column Totals: 75 (A) 375 (B)
7.				Prevalence Index = B/A = 5.00
		= Total Cove	r	
Herb Stratum_(Plot size: 5 ft)				
1. Glycine max	75	Yes	UPL	Hydrophytic Vegetation Indicators:
2.				Rapid Test for Hydrophytic Vegetation
3.				Dominance Test is >50%
4.				Prevalence Index is ≤ 3.0 <sup>1</sup>
5.				Morphological Adaptations <sup>1</sup> (Provide
6.				<ul> <li>supporting data in Remarks or on a separate sheet)</li> </ul>
7.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic.
10				
11.				
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20				ft tall.
	75	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
1				
2				Hydrophytic Vegetation Present ?
3				
4				Yes NoX
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

	Matrix		Re	dox Feat	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-13"	10YR 3/1	100					Clay Loam	
13-19"	10YR 4/2	90	10YR 5/6	10	с	m	Clay Loam	
	·					<u> </u>	·	
<u> </u>		<u> </u>				·	·	
<u> </u>		<u> </u>				·	·	
						<u> </u>		
	centration, D=Depletior	n, RM=Red	uced Matrix, MS=Mas	ked Sand G	irains. <sup>2</sup> Loca	ation: PL=Po		antin Undela Onilaŭ
Hydric Soil In			Stripped Matrix (	( <b>C</b> C)			Indicators for Problem	-
Histosol Histic Ep	(AT) ipedon (A2)	_	Loamy Mucky M	, ,			2 cm Muck (A10 Coast Prairie Re	
Black His		_	Loamy Gleyed N				5 cm Mucky Pea	
	n Sulfide (A4)	_	Depleted Matrix				Dark Surface (S	
	l Layers (A5)		Redox Dark Surf Depleted Dark S				Polyvalue Belov Thin Dark Surfa	
	l Below Dark Surface ( Irk Surface (A12)	ATT) _	Redox Depression				Iron-Manganese	
	lucky Mineral (S1)	_					Red Parent Mat	
Sandy G	leyed Matrix (S4)						·	ark Surface (TF12)
	edox (S5)						Other (Explain in	n Remarks)
	edox (S5)						Other (Explain i	n Remarks)
	edox (S5)						Other (Explain in	n Remarks)
Sandy R	edox (S5) hydrophytic vegetation	and wetlan	d hydrology must be į	present, unl	ess disturbed	l or problem		n Remarks)
Sandy R		and wetlan	d hydrology must be j	present, unl	ess disturbed	l or problem		n Remarks)
Sandy R 3Indicators of I Restrictive La	hydrophytic vegetation	and wetlan	d hydrology must be j	present, unle	ess disturbed	d or problen		n Remarks)
Sandy R 3Indicators of I Restrictive La Type:	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be j	present, unl	ess disturbed		natic.	n Remarks) Yes NoX
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be p	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlar	id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be p	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	id hydrology must be p	oresent, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlar	id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	Id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type:	hydrophytic vegetation Iyer (if observed):	and wetlan	Id hydrology must be j	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	Id hydrology must be p	oresent, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	Id hydrology must be p	oresent, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlar	Id hydrology must be p	present, unl	ess disturbed		natic.	
Sandy R 3Indicators of I Restrictive La Type: Depth (in	hydrophytic vegetation Iyer (if observed):	and wetlan	Id hydrology must be j	present, unla	ess disturbed		natic.	

### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet					City/County:		Weston/V	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ene	rgy					State:	OH	Sampling Point:	ing Point: dp107		
Investigator(s):	K Hillie					Section	n, Townsh	S034 T005N R	6034 T005N R009E			
Landform (hillslope,	terrace, etc	c.):		Summit			Local	relief (conca	ave, convex, none)	none		
Slope (%):	1%	Lat:	41.34368	31		Long:		83.817426		Datum:		NAD83
Soil Map Unit Name:	: .	Mermill-Aura	nd complex, 0 to 1 p	ercent slo	pes (MfA)				NWI class	ification:		none
Are climatic / hydrold	ogic conditi	ons on the sit	te typical for this time	e of year?		Yes X	No	(If no	, explain in Remark	ks.)		
Are Vegetation		, Soil	, or Hydrology	sign	ificantly dis	sturbed?	Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation		, Soil	, or Hydrology	natu	rally proble	ematic?	(If need	ed, explain	any answers in Rei	marks.)		
SUMMARY OF	FINDIN	GS Atta	ch site map sho	owing sa	ampling	point locatio	ns, trai	nsects, in	nportant featu	res, etc.		
Hydrophytic Vegeta	ation Prese	nt?	Yes	No	х	Is the San	npled Are	a				
Hydric Soil Present	?		Yes	No	Х	within a W	/etland?		Yes	No	Х	
Wetland Hydrology	Present?		Yes	No	Х	If yes, opti	onal Wetl	and Site ID:				
Remarks: (Exp	lain alterna	tive procedu	res here or in a sepa	rate repor	rt.)	•						

### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	fone is required;	check	all tha	t apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizospheres on Living R	oots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)				Recent Iron Reduction in Tilled Soi	s (C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)			Other (Explain in Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	Х	Depth (inches):		
Water Table Present?	Yes	No	Х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wetland H	ydrology Present? Yes No X
(includes capillary fringe)						
Remarks:						

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

Sampling Point: dp107

Tree Stratum (Plot size: 30 ft. )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3.				Total Number of Dominant Species
4				Percent of Dominant Species That
6 7				Are OBL, FACW, or FAC: 0% (A/B)
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft. )	)			Total % Cover of: Multiply by:
1				OBL species $0 \times 1 = 0$
2			<u> </u>	FACW species $0 \times 2 = 0$
3.			<u> </u>	FAC species $0 \times 3 = 0$
4				FACU species 25 x 4 = 100
5				UPL species <u>80</u> x 5 = <u>400</u>
6				Column Totals: 105 (A) 500 (B)
7				Prevalence Index = $B/A = 4.76$
Herb Stratum (Plot size: <u>5</u> ft. )		= Total Cove	r	
1. Zea mays	80	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Stellaria media	25	Yes	FACU	Rapid Test for Hydrophytic Vegetation
3.				Dominance Test is >50%
4.				Prevalence Index is $\leq 3.0^{1}$
5.				Morphological Adaptations <sup>1</sup> (Provide
6.				<ul> <li>supporting data in Remarks or on a separate sheet)</li> </ul>
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.				
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				be present, unless disturbed of problematic.
				Definitions of Vegetation Strata:
12				-
13 14				Tree - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
15				
16				Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28 ft tall.
20				
	105	= Total Cove	r	Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30 ft.</u> )				
1				
2				Hydrophytic Vegetation Present ?
3				M N N
4	·			Yes No_X_
		= Total Cove	ſ	
Remarks: (Include photo numbers here or on a separate sheet.)				
LIS Army Corps of Engineers				Northcontrol Groat Lakor Pagion Version 2.0

SOIL

Depth Color (m (inches) Color (m 0-8" 10YR 3 8-18" 10YR 4 	3/1     100       4/3     90	Redox Featur           Color (moist)         %           10YR 5/6         10	Type1         Loc2           c         m	Sandy Loam	Remarks
8-18" 10YR 4	4/3 <u>90</u> 	educed Matrix, MS=Masked Sand Gra		Silty Clay Loam	
8-18" 10YR 4	4/3 <u>90</u> 	educed Matrix, MS=Masked Sand Gra		Silty Clay Loam	
<sup>1</sup> Type: C=Concentration, D= Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral		educed Matrix, MS=Masked Sand Gra			
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	=Depletion, RM=Re	Stripped Matrix (S6)	ins. <sup>2</sup> Location: PL=		
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral					
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral					atic Hydric Soils <sup>3</sup> :
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral		Loamy Mucky Mineral (F1)		2 cm Muck (A10) Coast Prairie Red	
Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral		Loamy Gleyed Matrix (F2)		5 cm Mucky Peat	
Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral	)	Depleted Matrix (F3)		Dark Surface (S7	
Thick Dark Surface (A Sandy Mucky Mineral	<b>.</b>	Redox Dark Surface (F6)		Polyvalue Below	
Sandy Mucky Mineral		Depleted Dark Surface (F7) Redox Depressions (F8)		Thin Dark Surfac	
Sandy Gleved Matrix (				Red Parent Mate	
	(S4)				rk Surface (TF12)
Sandy Redox (S5)				Other (Explain in	Remarks)
3Indicators of hydrophytic ve	egetation and wetla	and hydrology must be present, unles	s disturbed or probl	lematic.	
Restrictive Layer (if observ	ved):				
Туре:					
Depth (inches):			Hydric	Soil Present? Y	′es No X
Remarks:					

### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet					City/County:		Weston/V	Vood	Sampling D	Date:	10/21/2020
Applicant/Owner:	7X Ene	ergy					State:	ОН	Sampling Point		dp108	
Investigator(s):	K Hillie	r				Section	, Townsh	S004 T004N R	6004 T004N R009E			
Landform (hillslope,	terrace, et	c.):		Summit			Local	relief (conc	ave, convex, none)	none		
Slope (%):	1%	Lat:	41.33779	92		Long:		-83.828342		Datum:		NAD83
Soil Map Unit Name	:	Mermill-Aur	and complex, 0 to 1 p	ercent slo	opes (MfA)				NWI class	ification:		none
Are climatic / hydrole	ogic condit	ions on the s	site typical for this time	e of year?		Yes X	No	(If no	, explain in Remarl	ks.)		
Are Vegetation		, Soil	, or Hydrology	sigr	nificantly dis	turbed?	Are "No	rmal Circun	nstances" present?	Yes	X No	
Are Vegetation		, Soil	, or Hydrology	nati	urally proble	ematic?	(If need	ed, explain	any answers in Re	marks.)		
SUMMARY OF	F FINDIN	GS Atta	ach site map sho	owing s	ampling	point locatio	ns, trai	nsects, ir	nportant featu	res, etc.		
Hydrophytic Veget	ation Prese	ent?	Yes	No	х	Is the San	npled Are	ea				
Hydric Soil Presen	ıt?		Yes	No	Х	within a W	vetland?		Yes	No	Х	
Wetland Hydrology	y Present?		Yes	No	Х	If yes, opti	onal Wetl	and Site ID:				·
Remarks: (Exp	olain alterna	ative proced	ures here or in a sepa	rate repo	rt.)							
1												

### HYDROLOGY

Wetland Hydrology Indicator	s:						Secondary Indicators (minimum of two required)
Primary Indicators (minimum o	f one is required;	check	all that	t apply)			Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Lea	aves (B9)		Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B1	13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B1	5)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizosph	neres on Living Root	s (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Redu	ced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduc	ction in Tilled Soils (	C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface	e (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in F	Remarks)		Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)						FAC-Neutral Test (D5)
Field Observations:							
Surface Water Present?	Yes	No	Х	Depth (inches):			
Water Table Present?	Yes	No	х	Depth (inches):			
Saturation Present?	Yes	No	х	Depth (inches):		Wetland H	lydrology Present? Yes <u>No X</u>
(includes capillary fringe)							
Remarks:							

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

Sampling Point: dp108

	AL 1.4	<b>D</b> · · ·		
	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species
4.				Across All Strata 2 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
				Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1				OBL species 0 x 1 = 0
2				FACW species 0 x 2 = 0
3.				FAC species 0 x 3 = 0
4.				FACU species 20 x 4 = 80
				UPL species 80 x 5 = 400
6				Column Totals: 100 (A) 480 (B)
7				Prevalence Index = $B/A = 4.80$
		= Total Cove	r	
Herb Stratum_(Plot size: 5 ft)				
1. Zea mays	80	Yes	UPL	Hydrophytic Vegetation Indicators:
2. Stellaria media	20	Yes	FACU	Rapid Test for Hydrophytic Vegetation
3.				Dominance Test is >50%
4.				Prevalence Index is $\leq 3.0^{1}$
5.				Morphological Adaptations <sup>1</sup> (Provide
				supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12.				Definitions of Vegetation Strata:
13				-
				<b>Tree</b> - Woody plants 3 inches (7.6 cm) or more in diameter at breast height (DBH), regardless of
				height.
15				
16				<b>Sapling/shrub</b> - Woody plants less than 3 inches DBH and greater than 3.28 ft (1 m) tall.
17				
18				Herb - All herbaceous (non-woody) plants,
19				regardless of size, and woody plants less than 3.28
20				ft tall.
	100	= Total Cove		Woody vines - All woody vines greater than 3.28 ft
Woody Vine Stratum (Plot size: 30 ft.	)			in height.
<u></u> (,	/			
				Hydrophytic Vegetation Present 2
2				Hydrophytic Vegetation Present ?
3				
4				Yes NoX
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				
(				

SOIL

Depth	Matrix		Re	dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12"	10YR 3/3	100					Sandy Loam	
12-18"	10YR 5/4	95	10YR 5/6	10	с	m	Sandy Loam	
							Canay Loann	
							·	
						<u> </u>		
					—			
				<u> </u>		<u> </u>		
Type: C=Con Hydric Soil In	centration, D=Depletion	n, RM=Red	uced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	ation: PL=P		blematic Hydric Soils <sup>3</sup> :
Histosol			Stripped Matrix (	S6)			2 cm Muck	
	pipedon (A2)	_	Loamy Mucky M					ie Redox (A16)
Black Hi		-	Loamy Gleyed N					Peat or Peat (S3)
Hydroge	n Sulfida (AA)		Depleted Matrix	(F3)			Dark Surfac	
Stratifian	. ,	-	Bodoy Dark Surf	2000 (EG)			Doba/oluo E	Polow Surface (S9)
	d Layers (A5)	– – A11)	Redox Dark Surf					Below Surface (S8) Surface (S9)
Depleted	. ,	- A11)	Redox Dark Surf Depleted Dark S Redox Depressio	urface (F7)			Thin Dark S	
Depleted Thick Da Sandy M	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /ucky Mineral (S1)	- A11)	Depleted Dark S	urface (F7)			Thin Dark S Iron-Manga Red Parent	Surface (S9) nese Masses (F12) Material (F21)
Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (A ark Surface (A12) Aucky Mineral (S1) Gleyed Matrix (S4)	A11)	Depleted Dark S	urface (F7)			Thin Dark S Thin Dark S Red Parent Very Shallo	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (/ ark Surface (A12) /ucky Mineral (S1)	– 411) _ –	Depleted Dark S	urface (F7)			Thin Dark S Thin Dark S Red Parent Very Shallo	Surface (S9) nese Masses (F12) Material (F21)
Depleted Thick Da Sandy M Sandy G	d Layers (A5) d Below Dark Surface (A ark Surface (A12) Aucky Mineral (S1) Gleyed Matrix (S4)	 A11)	Depleted Dark S	urface (F7)			Thin Dark S Thin Dark S Red Parent Very Shallo	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5)		Depleted Dark S Redox Depressio	urface (F7) ons (F8)			Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Aucky Mineral (S1) Sleyed Matrix (S4) Redox (S5)		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed	d or problem	Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5)		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed	d or problen	Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Aucky Mineral (S1) Sleyed Matrix (S4) Redox (S5)		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed	d or problem	Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Bindicators of Restrictive La	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Blndicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Comparison Sandy R Sandy Sandy R Sandy Sandy S	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
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Depleted Thick Da Sandy M Sandy G Sandy R Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Comparison Sandy R Sandy Sandy R Sandy Sandy S	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Comparison Sandy R Sandy Sandy R Sandy Sandy S	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R 31ndicators of Restrictive La	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R 3Indicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Blndicators of Restrictive La Type: Depth (ir	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)
Depleted Thick Da Sandy M Sandy G Sandy R Sandy R Sandy R Comparison Sandy R Sandy Sandy R Sandy Sandy S	d Layers (A5) d Below Dark Surface ( <i>i</i> ark Surface (A12) Mucky Mineral (S1) Bleyed Matrix (S4) Redox (S5) hydrophytic vegetation ayer (if observed):		Depleted Dark S Redox Depressio	urface (F7) ons (F8)	ess disturbed		Thin Dark S	Surface (S9) nese Masses (F12) Material (F21) w Dark Surface (TF12) ain in Remarks)

### WETLAND DETERMINATION DATA FORM -- Northcentral Great Lakes Region

Project/Site:	Juliet				City/0	County:		Weston/W	/ood	Sampling I	Date:	10/21/2020
Applicant/Owner:	7X Energy						State:	ОН	Sampling Point:		dp109	1
Investigator(s):	K Hillier					Section	, Townsh	p, Range:		S004 T004N F	R009E	
Landform (hillslope, t	errace, etc.):		S	Summit			Local	relief (conca	ave, convex, none)	none		
Slope (%):	1%	Lat:	41.337385	5	Long:		-	83.834035		Datum:		NAD83
Soil Map Unit Name:	Hoy	tville clay loam,	, 0 to 1 percent	slopes (HoA	۹)				NWI class	ification:		none
Are climatic / hydrolo	gic conditions	on the site typi	cal for this time	of year?		Yes X	No	(If no	, explain in Remarl	(s.)		
Are Vegetation	, So	il, o	r Hydrology	significa	antly disturbed	?	Are "No	rmal Circum	stances" present?	Yes	X No	
Are Vegetation	, So	il, o	r Hydrology	naturall	ly problematic	?	(If need	ed, explain a	any answers in Rei	marks.)		
SUMMARY OF	FINDINGS	Attach si	te map show	wing sam	npling poin	t locatio	ns, trar	sects, in	nportant featu	res, etc.		
Hydrophytic Vegeta	tion Present?		Yes	No X	(	Is the Sam	pled Are	a				
Hydric Soil Present	?		Yes	No X	(	within a W	/etland?		Yes	No	Х	_
Wetland Hydrology	Present?		Yes	No X	(	lf yes, optio	onal Wetla	and Site ID:				<u> </u>
Remarks: (Expl	lain alternative	procedures he	re or in a separa	ate report.)								

### HYDROLOGY

Wetland Hydrology Indicator	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum o	f one is required;	check	all that	apply)		Surface Soil Cracks (B6)
Surface Water (A1)		_		Water-Stained Leaves (E	39)	Drainage Patterns (B10)
High Water Table (A2)		_		Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)		_		Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		_		Hydrogen Sulfide Odor (	C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		_		Oxidized Rhizospheres of	on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_		Presence of Reduced Iro	n (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		_		Recent Iron Reduction in	Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)		_		Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aeri	al Imagery (B7)	_		Other (Explain in Remar	(S)	Microtopograpic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)					FAC-Neutral Test (D5)
Field Observations:						
Surface Water Present?	Yes	No	Х	Depth (inches):		
Water Table Present?	Yes	No	Х	Depth (inches):		
Saturation Present?	Yes	No	Х	Depth (inches):	Wet	and Hydrology Present? Yes No X
(includes capillary fringe)						
Remarks:						

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

Sampling Point: dp109

	Abaabata	Densinent	la d'antes	
	Absolute	Dominant	Indicator	Deminence Test Workshoot
Tree Stratum (Plot size: <u>30 ft.</u> )	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant Species
4				Across All Strata 2 (B)
5				Percent of Dominant Species That
6				Are OBL, FACW, or FAC: 0% (A/B)
7				
		= Total Cove	r	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft.	)			Total % Cover of: Multiply by:
1.				OBL species 0 x 1 = 0
2.				FACW species 0 x 2 = 0
3.				FAC species $0 \times 3 = 0$
4.				FACU species 20 x 4 = 80
5.				UPL species 80 x 5 = 400
6.				Column Totals: 100 (A) 480 (B)
7.				Prevalence Index = $B/A = 4.80$
		= Total Cove		
Herb Stratum_ (Plot size: <u>5</u> ft)			1	
	00	Vee		Hydrophytic Vegetation Indicators:
1. Zea mays	80	Yes	UPL	
2. <u>Stellaria media</u>	20	Yes	FACU	Rapid Test for Hydrophytic Vegetation
3				Dominance Test is >50%
4				Prevalence Index is ≤ 3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide
5				supporting data in Remarks or on a separate
6				sheet)
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9				be present, unless disturbed or problematic.
10				
11				
12				Definitions of Vegetation Strata:
13				Tree - Woody plants 3 inches (7.6 cm) or more in
14				diameter at breast height (DBH), regardless of
15				height.
16			·	Sapling/shrub - Woody plants less than 3 inches
17				DBH and greater than 3.28 ft (1 m) tall.
				Herb - All herbaceous (non-woody) plants,
10				regardless of size, and woody plants less than 3.28
20				ft tall.
	100	= Total Cove		Woody vines - All woody vines greater than 3.28 ft
Woody Vino Stratum (Distaire)	100		I	in height.
Woody Vine Stratum (Plot size: <u>30 ft.</u> )	)			
1				the local offs Manufation Process ( 0
2				Hydrophytic Vegetation Present ?
3				
4				Yes NoX_
		= Total Cove	r	
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Depth	Matrix		Re	dox Featu	ires					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Re	emarks	
0-14"	10YR 3/3	100					Sandy Loam			
14-18"	10YR 5/4	95	10YR 5/6	5						
14-10	10TK 5/4	90	101K 5/6		C		Sandy Loam			
<sup>1</sup> Type: C=Con	centration, D=Depletior	n, RM=Red	uced Matrix, MS=Mas	ked Sand G	rains. <sup>2</sup> Loca	ition: PL=Po	ore Lining, M=Matrix.			
Hydric Soil In							Indicators for Prol	blematic Hydric	Soils <sup>3</sup> :	
Histosol		_	Stripped Matrix (				2 cm Muck			
Histic Ep Black Hi	pipedon (A2) istic (A3)	-	Loamy Mucky Mi Loamy Gleyed M	. ,				e Redox (A16) Peat or Peat (S3	8)	
	en Sulfide (A4)	_	Depleted Matrix (				Dark Surfac		,	
	d Layers (A5)		Redox Dark Surf					elow Surface (S8	)	
Depleted	d Below Dark Surface (A	A11)	Depleted Dark S				Thin Dark S	urface (S9)		
	ark Surface (A12)	_	Redox Depression	ons (F8)				nese Masses (F1	2)	
	Aucky Mineral (S1)							Material (F21) w Dark Surface ( <sup>-</sup>		
	Gleyed Matrix (S4) Redox (S5)							ain in Remarks)	1 F 12)	
								· · ,		
2 Indiantara of	hudrophutia vogotation	and wattan		rocont unio	oo diaturbaa	l or problem	actio			
Sindicators of	hydrophytic vegetation	and wettan	a nyarology must be p	present, unie	ess disturbed	or problem				
Restrictive La	ayer (if observed):									
_										
Type:						Hydric So	oil Present?	Yes	No	x
_	nches).								· ···•	~
Depth (ir	nches):									
_	nches):									
Depth (ir	nches):									
Depth (ir	nches):									
Depth (ir	nches):					<u> </u>				
Depth (ir	nches):					1 -				
Depth (ir	nches):					<u> </u>				
Depth (ir	nches):									
Depth (ir	nches):									
Depth (ir	nches):									
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Depth (ir	nches):									
Depth (ir	nches):					_ <u>·</u>				
Depth (ir	nches):					-				
Depth (ir	nches):									

Wetland and Waterbody Delineation Report Juliet Solar Project

# APPENDIX

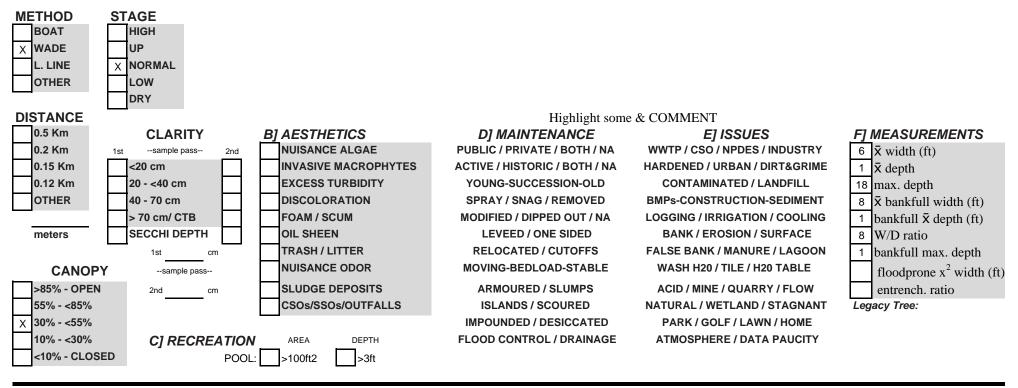


## STREAM ASSESSMENT FORMS



<b>ONICEIPA</b> an	ualitative Habitat d Use Assessme		et Q	HEI Score:	22.00
Stream & Location: <u>s001</u>		9 Affiliation.	_ RM:		10/21/2020
Ben Hess River Code:	Scorers Full Name  STORET #:		Cardr t/ Long: <u>41.339</u>		Office verified location
	ubstrate TYPE BOXES; estimate			00.0010	
% or note every type BEST TYPES POOL RIFFLE BLDR /SLABS [10] BOULDER [9] COBBLE [8] GRAVEL [7] BEDROCK [5] NUMBER OF BEST TYPES: Comments X 3 or lear	OTHER TYPES POOL HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural subs ore [2] ignore sludge from ss [0] sources)	RIFFLE ORIGIN 40 LIMESTO X TILLS [1] CONTINUES	DS [0] N [0] ONE [0] [0] URINE [0] -1] NES [-2]	QUALITY X HEAVY [-2] MODERATE [-1 NORMAL [0] FREE [1] STENSIVE [-2	4.0
0         OVERHANGING VEGETATION [1]         0           0         SHALLOWS (IN SLOW WATER) [1]         0           0         ROOTMATS [1]         0           Comments         0         0	lality or in small amounts of high Iders in deep or fast water, large twad in deep / fast water, or dee POOLS > 70cm [2] 0 ROOTWADS [1] 0 BOULDERS [1] 1	est quality; 3-Highest e diameter log that is s ep, well-defined, functi OXBOWS, BACKWA AQUATIC MACROPH LOGS OR WOODY D	quality inChestable, wellEional pools.M.TERS [1]SIHYTES [1]X	AMOUNT ck ONE (Or 2 & avera XTENSIVE >75% [11 ODERATE 25-75% [ PARSE 5-<25% [3] EARLY ABSENT <59 Maxia	] 7]
3] CHANNEL MORPHOLOGY         Check           SINUOSITY         DEVELOPMENT           HIGH [4]         EXCELLENT [7]           MODERATE [3]         GOOD [5]           LOW [2]         FAIR [3]           XNONE [1]         X POOR [1]	ONE in each category (Or 2 & a CHANNELIZA NONE [6] RECOVERED [4] X RECOVERING [3] RECENT OR NO RE		STABILITY HIGH [3] MODERATE [2] LOW [1]		thannel laximum 20
				<b>2</b>	20
MODERATE [2]	N WIDTH         L         R FLOC           n [4]	h category for EACH E DD PLAIN QUALI ST, SWAMP [3] B OR OLD FIELD [2] ENTIAL, PARK, NEW ED PASTURE [1] PASTURE, ROWCRO		ONSERVATION TILL RBAN OR INDUSTR INING / CONSTRUC redominant Ri	IAL [0]
			riparian.		10
5] POOL / GLIDE AND RIFFLE / RUN           MAXIMUM DEPTH         CHANNEL WII           Check ONE (ONL Y!)         Check ONE (Or 2 december 2)           > 1m [6]         POOL WIDTH > RIFI           0.7-<1m [4]	DTH C & average) FLE WIDTH [2] TORREN FLE WIDTH [1] VERY FA		bly	Recreation Pote Primary Conta Secondary Conta (check one and commo	act Itact X
0.2-<0.4m [1] X < 0.2m [0] Comments		cate for reach - pools a		Maxin	Pool / Current 1.0
Indicate for functional riffles; Be of riffle-obligate species: RIFFLE DEPTH RUN DEF BEST AREAS > 10cm [2] MAXIMUM > 5	Check ONE (Or PTH RIFFLE / I		E R <u>IF</u> FLE		
BEST AREAS 5-10cm [1] XMAXIMUM < BEST AREAS 5-5cm [metric=0] Comments	50cm [1] MOD. STABL	E (e.g., Large Gravel e.g., Fine Gravel, Sar	) [1] LOW [ nd) [0] X MODE	1] RATE [0]	Riffle / Run 1.0 xximum 8
6] GRADIENT ( 2.0 ft/mi) X VE DRAINAGE AREA	ERY LOW - LOW [2-4] DDERATE [6-10] GH - VERY HIGH [10-6]	%POOL: %RUN:	0% %GLIDI	=: 100% Ma	adient eximum 10

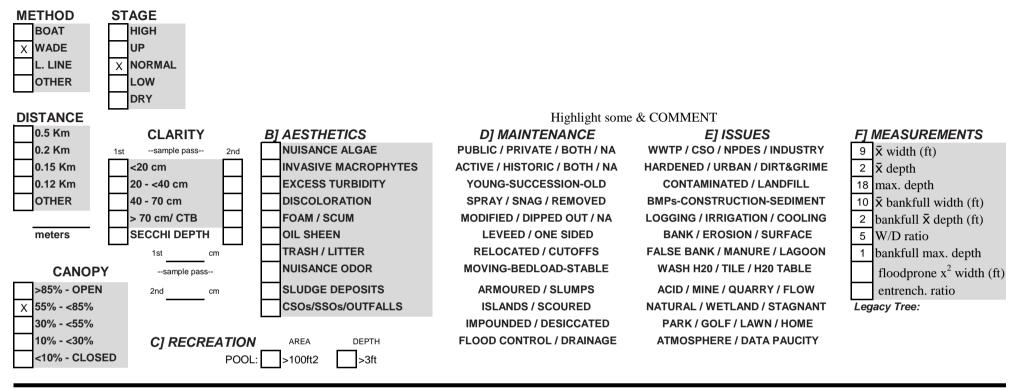
Check ALL that apply



**Stream Drawing:** (see associated waters delineation report figures and photo pages)

<b>OhioEP</b>	and Use A		Evaluation ent Field She	eet	QHEI Score:	22.00
Stream & Location: Ben Hess	s002	ers Full Name	& Affiliation:	_ RM:	Date:	10/21/2020 Office verified
River Code: -					.3364 / -83.8231	location
	heck ONLY Two substrate TYP					
BEST TYPES PO BLDR /SLABS [10] BOULDER [9] COBBLE [8] GRAVEL [7] BEDROCK [5] NUMBER OF BEST TYP Comments	5         X         MUCK           5         X         SILT [2           5         X         ARTIFI           PES:         4 or more [2]           X 3 or less [0]	PAN [4] TUS [3] [2] CIAL [0] (Score natural sub ignore sludge from sources)	RIFFLE ORIGIN 30 LIMESTO X TILLS [1] WETLAN 60 HARDPA SANDST strates; point- LACUST SHALE [ COAL FI	] IDS [0] IN [0] ONE [0] [0] URINE [0] -1] INES [-2]	SILT SILT SILT SILT SILT ADDERATE [- NORMAL [0] FREE [1] EXTENSIVE [- NODERATE [- NORMAL [0] NONE [1]	2] 4.0
-	Indicate presence 0 to 3: <b>0</b> -Abs but not of highest quality or in sm		amounts or if more co	mmon of margi	nal <b>AMOUNT</b> Check ONE (Or 2 & ave	rage)
1 UNDERCUT BANKS [1 0 OVERHANGING VEGE	ETATION [1] 0 POOLS >	/ fast water, or de • <b>70cm [2]</b> 0	ep, well-defined, funct OXBOWS, BACKWA	tional pools. ATERS [1]	EXTENSIVE >75% [1 MODERATE 25-75% SPARSE 5-<25% [3]	[7]
0 SHALLOWS (IN SLOW 0 ROOTMATS [1] Comments	WWATER) [1] 0 ROOTWA 0 BOULDE		AQUATIC MACROP		X NEARLY ABSENT <5	% [1] Cover 3.0
3] CHANNEL MORPHO SINUOSITY DE HIGH [4] E2 MODERATE [3] G4 LOW [2] F/	EVELOPMENT XCELLENT [7] NC iOOD [5] RE AIR [3] X RE	category (Or 2 & 2 CHANNELIZ/ DNE [6] ECOVERED [4] ECOVERING [3] ECENT OR NO RE		STABILITY HIGH [3] MODERATE [2 LOW [1]	2]	Channel Aaximum 20
4] BANK EROSION AN River right looking downstream L R EROSION X NONE / LITTLE [3] MODERATE [2] HEAVY / SEVERE [1]	R RIPARIAN WIDTH           WIDE > 50m [4]           MODERATE 10-50m [3]           NARROW 5-10m [2]           VERY NARROW < 5m [*	L R FLOO	ch category for EACH DD PLAIN QUALI ST, SWAMP [3] B OR OLD FIELD [2] DENTIAL, PARK, NEV ED PASTURE [1]		R CONSERVATION TIL URBAN OR INDUSTR MINING / CONSTRUC cate predominant land	RIAL [0] CTION [0] Iparian
		XXOPEN	PASTURE, ROWCR		(s) past 100m riparian.	aximum <b>3.0</b> 10
MAXIMUM DEPTH           Check ONE (ONLY!)           > 1m [6]           0.7-<1m [4]	RIFFLE / RUN QUALITY CHANNEL WIDTH Check ONE (Or 2 & average) OOL WIDTH > RIFFLE WIDTH   OOL WIDTH = RIFFLE WIDTH   OOL WIDTH < RIFFLE WIDTH	[2] TORREN [1] VERY F/ [0] FAST [1] MODER	I INTE ATE [1] EDD	oly IW [1] ERSTITIAL [-1] ERMITTENT [-2 NES [1]		act ntact X
Comments	ional riffles; Best areas r		cate for reach - pools enough to suppo		Maxii	num 12
of riffle-obligate s RIFFLE DEPTH BEST AREAS > 10cm [2]	species: RUN DEPTH MAXIMUM > 50cm [2]		2 & average). RUN SUBSTRAT ., Cobble, Boulder) [		<u>NO RIFFLE [m</u> FLE / RUN EMBEDD IONE [2]	
BEST AREAS 5-10cm [1] BEST AREAS < 5cm [metric=0] Comments	X MAXIMUM < 50cm [1]		.E (e.g., Large Grave e.g., Fine Gravel, Sa	nd) [0] 🛛 🗙 N	.OW [1] MODERATE [0] EXTENSIVE [-1] M	Riffle / Run aximum 8
6] <i>GRADIENT</i> ( DRAINAGE AREA	2.0 ft/mi) X VERY LOW - L MODERATE [6 3.800 mi <sup>-</sup> ) HIGH - VERY H	-10]	%POOL: %RUN:			<b>radient</b> aximum <b>4.0</b> 10
FPA 4520		1.61	17/20/2020			06/16/06

Check ALL that apply

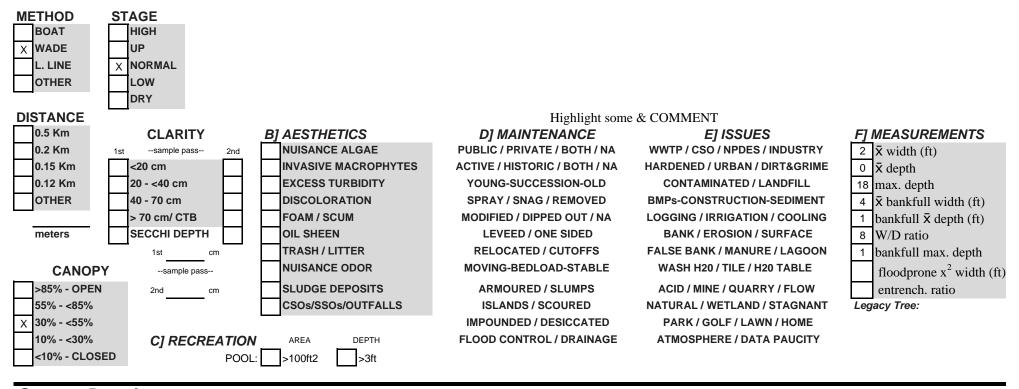


Stream Drawing:

(see associated waters delineation report figures and photo pages)

	ualitative Habitat		eet	QHEI Score:	21.00
Stream & Location: \$003	Coorero Full Norre	9 Affiliation.	RM:	Date:	10/21/2020
Ben Hess River Code:	Scorers Full Name STORET #:		Car	<u>365 / -83.8247 _</u>	Office verified location
	substrate TYPE BOXES; estima				
% or note every typ           BEST TYPES         POOL         RIFFLE           BLDR /SLABS [10]	e present OTHER TYPES POOL HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural sul more [2] ignore sludge from	RIFFLE ORIGIN 30 LIMESTO X TILLS [1] WETLAN 60 HARDPA SANDST bstrates; RIP/RAP	SIL DS [0] N [0] ONE [0] [0] URINE [0] -1]	QUALITY HEAVY [-2] MODERATE [ NORMAL [0] FREE [1]	-1] Substrate 5.0
0         OVERHANGING VEGETATION [1]           0         SHALLOWS (IN SLOW WATER) [1]           0         ROOTMATS [1]           Comments	quality or in small amounts of hig         pulders in deep or fast water, larg         potwad in deep / fast water, or de         0       POOLS > 70cm [2]         0       ROOTWADS [1]         0       BOULDERS [1]	amounts or if more cor ghest quality; 3-Highest ge diameter log that is s eep, well-defined, funct OXBOWS, BACKWA AQUATIC MACROPI LOGS OR WOODY I	nmon of marginal quality in Cł stable, well ional pools. <b>TERS [1]</b> <b>HYTES [1]</b>	AMOUNT neck ONE ( <i>Or 2 &amp; ave</i> EXTENSIVE >75% [1 MODERATE 25-75% SPARSE 5-<25% [3] NEARLY ABSENT <	1] [7]
3] CHANNEL MORPHOLOGY       Chec         SINUOSITY       DEVELOPMENT         HIGH [4]       EXCELLENT [7]         MODERATE [3]       GOOD [5]         LOW [2]       FAIR [3]         XNONE [1]       X POOR [1]         Comments       Comments			STABILITY HIGH [3] MODERATE [2] LOW [1]		Channel Maximum 20
					20
L     R     EROSION     WIDE > 5       X     X     NONE / LITTLE [3]     MODERA       MODERATE [2]     NARROW	AN WIDTH L R FLO 0m [4] FORE TE 10-50m [3] SHRU 75-10m [2] RROW < 5m [1] FENO	ch category for EACH OD PLAIN QUAL EST, SWAMP [3] JB OR OLD FIELD [2] DENTIAL, PARK, NEW CED PASTURE [1] N PASTURE, ROWCR(		CONSERVATION TII URBAN OR INDUST MINING / CONSTRU predominant	RIAL [0]
			riparian		10
5] POOL / GLIDE AND RIFFLE / RUN           MAXIMUM DEPTH         CHANNEL W           Check ONE (ONL Y!)         Check ONE (Or 2           > 1m [6]         POOL WIDTH > RI           0.7-<1m [4]	IDTH 2 & average) FFLE WIDTH [2] TORRE FFLE WIDTH [1] VERY F		bly	Recreation Por Primary Con Secondary Co (check one and com	tact Intact X
0.2-<0.4m [1] X < 0.2m [0] Comments	Ind	licate for reach - pools a			Pool / Current imum 12
Indicate for functional riffles; E of riffle-obligate species: RIFFLE DEPTH RUN DE BEST AREAS > 10cm [2] MAXIMUM >	Check ONE (O PTHRIFFLE /		E R <u>IF</u> FLE	n <u>NO RIFFLE [r</u> E / RUN EMBEDE IE [2]	
BEST AREAS > 10cm [2] BEST AREAS 5-10cm [1] BEST AREAS < 5cm [metric=0] Comments	50cm [1] MOD. STAB	LE (e.g., Large Gravel (e.g., Fine Gravel, Sar	l) [1] LOW nd) [0] X MOE	/ [1] DERATE [0]	Riffle / Run laximum 8
6] GRADIENT ( 1.0 ft/mi) X DRAINAGE AREA	VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]	%POOL: %RUN:	0% %GLI 0% %RIFF	DE: 100% /	<b>Tradient</b> Maximum 10

Check ALL that apply



Stream Drawing: (see associated waters

(see associated waters delineation report figures and photo pages)

**ChieEPA** Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

27

SITE NAME/LOCATION Juliet S SITE NUMBER 5004					
		wer Maumee	DRAINAGE	E AREA (mi <sup>2</sup> )	0.6
LENGTH OF STREAM REACH (ft 1		LONG -83.817479		RIVER MILE	
DATE 10/21/2020 SCORER E	3 Hess	COMMENTS			
NOTE: Complete All Items On Thi	s Form - Refer to "Field E	- valuation Manual for	Ohio's PHWH Streams	" for Instructions	
			_	RECENT OR NO	RECOVERY
MODIFICATIONS:			2		
1. SUBSTRATE (Est. % of every type of a state of the stat	of substrate present. Che	eck ONLY <u>2</u> predomin	ant substrate TYPE box	kes (Max of 40).	
Add total number of significant su		,	ore is A + B.		HHEI
TYPE	PERCENT <u>TYPE</u>			PERCENT	Metric
BLDR SLABS [16 pts]		SILT <b>[3 pts]</b>		60	Points
BOULDER (>256mm) [16 pts]		LEAF PACK/WOODY I	• •		Substrate
BEDROCK [16 PTS]		FINE DETRITUS [3 PT	-	30	Max = 40
COBBLE (65-256mm) [12 pts]		CLAY or HARDPAN [0	[191]		11107 40
GRAVEL (2-64mm) [9 pts] SAND (<2mm) [6 pts]		MUCK [0 PT] ARTIFICIAL [3 PTS]			
					7
Total of Percentages of Bldr				(B)	
Slabs, Boulder, Cobble, & Bedrock		3		. 4	
SCORE OF 2 MOST PREDOMINANT S	UBSTRATE TYPES:		ER OF SUBSTRATE TYPE	5:	A + B
2. Maximum Pool Depth ( <i>Measure t</i>	ha maximum naal danth	within the 61m (200'	l ovaluation reach at th	ao timo of	Deal Danth
<ol> <li>Maximum Pool Depth (Measure t evaluation. Avoid plunge pools fro</li> </ol>		• •	•	le time of	Pool Depth Max = 30
>30 centimeters [20 pts]		>5 cm - 10 cm [15 pt			1114. 00
>22.5 - 30 cm <b>[30 pts]</b>		<5 cm [5 pts]	5]		
>10 - 22.5 cm <b>[25 pts]</b>		NO WATER OR MOIS	T CHANNEL <b>[0 nts]</b>		15
				. 5	
COMMENTS		MAXIMUM PO	OL DEPTH (centimeters	s):	
		irements) (Check O	NLY one box):		Bankfull
3. BANK FULL WIDTH (Measured as	the average of 3-4 measu	(eneck e			
>4.0 meters (>13') [30 pts]		>1.0 m - 1.5 m (>3'3"	- 4'8") <b>[15 pts]</b>		Width
>4.0 meters (>13') <b>[30 pts]</b> >3.0 m - 4.0 m (>9'7" - 13') <b>[2</b>	5 pts]		- 4'8") <b>[15 pts]</b>		
>4.0 meters (>13') [30 pts]	5 pts]	>1.0 m - 1.5 m (>3'3"	- 4'8") <b>[15 pts]</b>		Width Max = 30
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [2	5 pts]	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") <b>[5 pts</b>	' - 4'8") <b>[15 pts]</b> ;]	<sub>s)</sub> 0.9	Width
>4.0 meters (>13') <b>[30 pts]</b> >3.0 m - 4.0 m (>9'7" - 13') <b>[2</b>	5 pts]	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") <b>[5 pts</b>	- 4'8") <b>[15 pts]</b>	<sub>(s)</sub> 0.9	Width Max = 30
<ul> <li>&gt;4.0 meters (&gt;13') [30 pts]</li> <li>&gt;3.0 m - 4.0 m (&gt;9'7" - 13') [2</li> <li>&gt;1.5 m - 3.0 m (&gt;4'8" - 9'7") [2</li> </ul>	5 pts]	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") <b>[5 pts</b> AVERAGE BA	- 4'8") [15 pts] 5] NKFULL WIDTH (meter	<sub>rs)</sub> 0.9	Width Max = 30
<ul> <li>&gt;4.0 meters (&gt;13') [30 pts]</li> <li>&gt;3.0 m - 4.0 m (&gt;9'7" - 13') [2</li> <li>&gt;1.5 m - 3.0 m (&gt;4'8" - 9'7") [2</li> </ul>	5 pts] 20 pts] This information	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") <b>[5 pts</b> AVERAGE BA	- 4'8") [15 pts] 5] NKFULL WIDTH (meter	rs)	Width Max = 30
<ul> <li>&gt;4.0 meters (&gt;13') [30 pts]</li> <li>&gt;3.0 m - 4.0 m (&gt;9'7" - 13') [2</li> <li>&gt;1.5 m - 3.0 m (&gt;4'8" - 9'7") [2</li> <li>COMMENTS</li> </ul>	5 pts] 20 pts] This information	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") <b>[5 pts</b> AVERAGE BA n <u>must</u> also be compl E: River Left (L) and Ri	- 4'8") [15 pts] ;] .NKFULL WIDTH (meter eted	rs)	Width Max = 30
>4.0 meters (>13') [30 pts] >3.0 m - 4.0 m (>9'7" - 13') [2 >1.5 m - 3.0 m (>4'8" - 9'7") [2 COMMENTS           RIPARIAN ZONE AND FLOOD           RIPARIAN WIDTH (Per Bank)	5 pts] 20 pts] This information PLAIN QUALITY * NOTE <u>FLOODPLAIN</u> (Most Predo	>1.0 m - 1.5 m (>3'3" <1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be compl E: River Left (L) and Ri I QUALITY minant per Bank)	- 4'8") [15 pts] ;] .NKFULL WIDTH (meter eted	istream	Width Max = 30
>4.0 meters (>13') [30 pts] >3.0 m - 4.0 m (>9'7" - 13') [2 >1.5 m - 3.0 m (>4'8" - 9'7") [2 COMMENTS           RIPARIAN ZONE AND FLOOD           RIPARIAN WIDTH (Per Bank)           Wide >10m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE L R (Most Predo Mature Fore	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts           AVERAGE BA           n must also be complete:           E: River Left (L) and Ri           I QUALITY           minant per Bank)           st, Wetland	- 4'8") [15 pts] NKFULL WIDTH (meter eted ght (R) as looking dowr	rs)   Istream Conservation Tilla	Width Max = 30
>4.0 meters (>13') [30 pts] >3.0 m - 4.0 m (>9'7" - 13') [2 >1.5 m - 3.0 m (>4'8" - 9'7") [2 COMMENTS           RIPARIAN ZONE AND FLOOD           RIPARIAN WIDTH (Per Bank)           Wide >10m           Moderate 5-10m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n <u>must</u> also be compl E: River Left (L) and Ri I <u>QUALITY</u> minant per Bank) st, Wetland orest, Shrub, or Old Fi	eld	rs)   Istream Conservation Tilla Urban or Industri	Width Max = 30 5
>4.0 meters (>13') [30 pts] >3.0 m - 4.0 m (>9'7" - 13') [2 >1.5 m - 3.0 m (>4'8" - 9'7") [2 COMMENTS           RIPARIAN ZONE AND FLOOD           RIPARIAN WIDTH (Per Bank)           Wide >10m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n <u>must</u> also be compl E: River Left (L) and Ri I <u>QUALITY</u> minant per Bank) st, Wetland orest, Shrub, or Old Fi- Park, New Field	- 4'8") [15 pts] NKFULL WIDTH (meter eted ght (R) as looking dowr	rs)   Istream Conservation Tilla	Width Max = 30 5
>4.0 meters (>13') [30 pts] >3.0 m - 4.0 m (>9'7" - 13') [2 >1.5 m - 3.0 m (>4'8" - 9'7") [2 COMMENTS           RIPARIAN ZONE AND FLOOD           RIPARIAN WIDTH           L R           (Per Bank)           Wide >10m           Moderate 5-10m           Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature For Residential, I	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n <u>must</u> also be compl E: River Left (L) and Ri I <u>QUALITY</u> minant per Bank) st, Wetland orest, Shrub, or Old Fi- Park, New Field	eld	rs) Istream Conservation Tilla Urban or Industri Open Pasture, Ro	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [2         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R       (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore Residential, I Fenced Paste	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be complete: River Left (L) and River Left (L) and River Left (L) and River Bank) st, Wetland orest, Shrub, or Old FirePark, New Field	eld	rs) Istream Conservation Tilla Urban or Industri Open Pasture, Ro	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R         (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore Immature Fore Residential, I Fenced Pasture reduction ) (Check ONLY of the function of th	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be compl E: River Left (L) and Ri I QUALITY minant per Bank) st, Wetland orest, Shrub, or Old Fio Park, New Field ure ne box): X Moist Channe	- 4'8") <b>[15 pts]</b> <b>INKFULL WIDTH (meter</b> <b>eted</b> ght (R) as looking dowr eld L R L R L R L R L R L R L R L R	conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore Immature Fore Residential, I Fenced Pasture reduction ) (Check ONLY of the function of th	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be compl E: River Left (L) and Ri I QUALITY minant per Bank) st, Wetland orest, Shrub, or Old Fio Park, New Field ure ne box): X Moist Channe	- 4'8") <b>[15 pts]</b> <b>INKFULL WIDTH (meter</b> <b>eted</b> ght (R) as looking dowr L R L R L R	conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R         (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore Immature Fore Residential, I Fenced Pasture reduction ) (Check ONLY of the function of th	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be compl E: River Left (L) and Ri I QUALITY minant per Bank) st, Wetland orest, Shrub, or Old Fio Park, New Field ure ne box): X Moist Channe	- 4'8") <b>[15 pts]</b> <b>INKFULL WIDTH (meter</b> <b>eted</b> ght (R) as looking dowr eld L R L R L R L R L R L R L R L R	conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R         (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore Immature Fore Residential, I Fenced Pasture raluation ) (Check ONLY of d pools (Interstitial) s per 61m (200ft) of change	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n <u>must</u> also be compl E: River Left (L) and Ri I <u>QUALITY</u> minant per Bank) st, Wetland prest, Shrub, or Old Fi Park, New Field ure ne box): Moist Channe Dry channel, nel) (Check ONLY one	eted eted ght (R) as looking dowr eld el, isolated pools, no flo no water (Ephemeral)	conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R         (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature For Residential, I Fenced Pasture realuation ) (Check ONLY of the pools (Interstitial) s per 61m (200ft) of chant 1.0	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be compl E: River Left (L) and Ri I QUALITY minant per Bank) st, Wetland orest, Shrub, or Old Fi Park, New Field ure ne box): Moist Channel, Dry channel, 1 nel) (Check ONLY one 2.0	eted ght (R) as looking dowr eld	conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R         (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature Fore Immature Fore Residential, I Fenced Pasture raluation ) (Check ONLY of d pools (Interstitial) s per 61m (200ft) of change	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n <u>must</u> also be compl E: River Left (L) and Ri I <u>QUALITY</u> minant per Bank) st, Wetland prest, Shrub, or Old Fi Park, New Field ure ne box): Moist Channe Dry channel, nel) (Check ONLY one	eted eld el, isolated pools, no flo no water (Ephemeral)	conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru	Width Max = 30 5
<ul> <li>&gt;4.0 meters (&gt;13') [30 pts]</li> <li>&gt;3.0 m - 4.0 m (&gt;9'7" - 13') [2</li> <li>&gt;1.5 m - 3.0 m (&gt;4'8" - 9'7") [2</li> <li>&gt;1.5 m - 3.0 m (&gt;4'8" - 9'7") [2</li> <li>COMMENTS</li> </ul> <b>RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH</b> L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None Comments <b>FLOW REGIME</b> (At Time of Evo Stream Flowing Subsurface flow with isolated Comments SINUOSITY (Number of bends) None 0.5 STREAM GRADIENT ESTIMATE	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature For	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be complete: River Left (L) and Rite	eted ght (R) as looking dowr eld el, isolated pools, no flo no water (Ephemeral) ebox): 3.0 >3	rs) Instream Conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru w (Intermittent)	Width Max = 30 5
>4.0 meters (>13') [30 pts]         >3.0 m - 4.0 m (>9'7" - 13') [2         >1.5 m - 3.0 m (>4'8" - 9'7") [3         COMMENTS         RIPARIAN ZONE AND FLOOD         RIPARIAN WIDTH         L R         (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m	5 pts] 20 pts] This information PLAIN QUALITY * NOTE FLOODPLAIN L R (Most Predo Mature Fore Immature For	>1.0 m - 1.5 m (>3'3" ≤1.0 m (≤ 3'3") [5 pts AVERAGE BA n must also be compl E: River Left (L) and Ri I QUALITY minant per Bank) st, Wetland orest, Shrub, or Old Fi Park, New Field ure ne box): Moist Channel, Dry channel, 1 nel) (Check ONLY one 2.0	eted eld el, isolated pools, no flo no water (Ephemeral)	rs) Instream Conservation Tilla Urban or Industri Open Pasture, Ro Mining or Constru w (Intermittent)	Width Max = 30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S004
QHEI PERFORMED? Ves 🗸 No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Distance from Evaluated Stream	
CWH Name: Distance from Evaluated Stream	
EWH Name: Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Weston NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: Wood Township/City: Milton/Weston	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipition: 10/20/2020 Quantity: 0.5	
Photographer Information: See photopages	
Elevated Turbidity? (Y/N): N Canopy (% open): 100	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. And attach results) Lab Number	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream? (Y/N) Y If not, please explain:	
Additional comments/description of pollution impacts	
BIOTIC EVAULATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled wit ID number. Include appopriate field data sheets from the Primary Hedwater Habitat Assessment Manual)	h the site
Fish observed? (Y/N) N Voucher(Y/N) N Salamander Observed? (Y/N) N Voucher? (Y/N) N	
Frogs or Tadpoles Observed? (Y/N) N Voucher(Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (	Y/N) N
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):	

Include important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location

(see associated waters delineation report figures and photo pages)

 $FLOW \longrightarrow$ 

**ChieEPA** Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

52

SITE NAME/LOCATION Juliet Solar / Weston, Ohio	
	6E AREA (mi <sup>2</sup> ) 0.55
LENGTH OF STREAM REACH (ft 200 LAT 41.347595 LONG -83.817119 RIVER CODE	RIVER MILE
DATE 10/21/2020 SCORER B Hess COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Stream	s" for Instructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED	RECENT OR NO RECOVERY
MODIFICATIONS:	
<ol> <li>SUBSTRATE (Est. % of every type of substrate present. Check ONLY 2 predominant substrate TYPE box</li> </ol>	axos (Max of 40)
	HHEI
Add total number of significant substrate types found (Max of 8). Final metric score is A + B. <b>TYPE PERCENT TYPE</b>	PERCENT Metric
BLDR SLABS [16 pts]	100 Points
BOULDER (>256mm) [16 pts]	
BEDROCK [16 PTS]	Substrate
COBBLE (65-256mm) [12 pts]	Max = 40
GRAVEL (2-64mm) [9 pts]	
SAND (<2mm) [6 pts]	
	7
Total of Percentages of Bldr (A)	(B)
Slabs, Boulder, Cobble, & Bedrock <u>0</u> 6	
SCORE OF 2 MOST PREDOMINANT SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYP	PES: A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61m (200') evaluation reach at it	the time of <b>Pool Depth</b>
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
>30 centimeters [20 pts] >5 cm - 10 cm [15 pts]	
>22.5 - 30 cm [ <b>30 pts</b> ]	
X         >10 - 22.5 cm [25 pts]         NO WATER OR MOIST CHANNEL [0 pts]	
	15
COMMENTS MAXIMUM POOL DEPTH (centimete	
	rs):
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
>4.0 meters (>13') [30 pts] >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]	Bankfull Width
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]	Bankfull
>4.0 meters (>13') [30 pts] >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]	Bankfull Width Max = 30
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         X       >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]	Bankfull Width Max = 30
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]	Bankfull Width Max = 30
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       ≤1.0 m (≤ 3'3") [5 pts]         COMMENTS       AVERAGE BANKFULL WIDTH (meters)	Bankfull Width Max = 30
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       ≤1.0 m (≤ 3'3") [5 pts]         COMMENTS         AVERAGE BANKFULL WIDTH (meter         This information must also be completed	Bankfull Width Max = 30 ers)
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         ≤1.0 m (≤ 3'3") [5 pts]       COMMENTS         AVERAGE BANKFULL WIDTH (meter         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY	Bankfull Width Max = 30 ers)
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       ≤1.0 m (≤ 3'3") [5 pts]         COMMENTS         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY	Bankfull Width Max = 30 ers)
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m ( $\leq$ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts] $\leq$ 1.0 m ( $\leq$ 3'3") [5 pts]         COMMENTS         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY $L R$ (Most Predominant per Bank) $L R$	ers) 1.5 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       ≤1.0 m (≤ 3'3") [5 pts]         COMMENTS         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH (Per Bank)       L R         FLOODPLAIN QUALITY       * Motter Forest, Wetland	ers) 1.5 Bankfull Width Max = 30 20
	ers) 1.5 Bankfull Width Max = 30 20 20
	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
	ers) 1.5 Bankfull Width Max = 30 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       ≤1.0 m (≤ 3'3") [5 pts]         COMMENTS         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L R       (Most Predominant per Bank)       L R         Wide >10m       Mature Forest, Shrub, or Old Field         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       ≤1.0 m (≤ 3'3") [5 pts]         COMMENTS         AVERAGE BANKFULL WIDTH (meter         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L R       (Most Predominant per Bank)       L R         Wide >10m       Mature Forest, Shrub, or Old Field         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         RIPARIAN ZONE AND FLOODPLAIN QUALITY         * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY         (Per Bank)       L R         Wide >10m       Mature Forest, Wetland         None       Mature Forest, Shrub, or Old Field         None       Residential, Park, New Field         None       Fenced Pasture         Comments       FLOW REGIME (At Time of Evaluation) (Check ONLY one box):         Stream Flowing       Moist Channel, isolated pools, no flow	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       L R         (Per Bank)       L R         Wide >10m       Mature Forest, Shrub, or Old Field         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         RIPARIAN ZONE AND FLOODPLAIN QUALITY         * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub, or Old Field         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L R       (Per Bank)       L R         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub, or Old Field         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       L R         (Per Bank)       L R         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub, or Old Field         None       Residential, Park, New Field         Comments       FlOW REGIME (At Time of Evaluation ) (Check ONLY one box):         Stream Flowing       Subsurface flow with isolated pools (Interstitial)         Comments       Immature Size (20 m)         SINUOSITY (Number of bends per 61m (200ft) of channel) (Check ONLY one box):         None       1.0         2.0       3.0	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       ≤1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L R       (Per Bank)       L R         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub, or Old Field         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         RIPARIAN ZONE AND FLOODPLAIN QUALITY         * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       L R         (Per Bank)       L R         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Mature Forest, Shrub, or Old Field         None       Fenced Pasture         Comments       Flow REGIME (At Time of Evaluation ) (Check ONLY one box):         Stream Flowing       Subsurface flow with isolated pools (Interstitial)         SINUOSITY (Number of bends per 61m (200ft) of channel) (Check ONLY one box):       3.0         None       1.0       2.0       3.0         0.5       1.5       2.5       3.0         3.0       3.0       3.0       3.0         STREAM GRADIENT ESTIMATE	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20
>4.0 meters (>13') [30 pts]       >1.0 m - 1.5 m (>3'3" - 4'8") [15 pts]         >3.0 m - 4.0 m (>9'7" - 13') [25 pts]       >1.0 m (≤ 3'3") [5 pts]         >1.5 m - 3.0 m (>4'8" - 9'7") [20 pts]       AVERAGE BANKFULL WIDTH (meter         COMMENTS         AVERAGE BANKFULL WIDTH (meter         RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking dow         RIPARIAN WIDTH       L R       FLOODPLAIN QUALITY         Wide >10m       Mature Forest, Wetland       Immature Forest, Wetland         Moderate 5-10m       Immature Forest, New Field       IXX         Narrow <5m	ers) 1.5 Bankfull Width Max = 30 20 20 20 20 20 20 20 20 20 20 20 20 20

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed): S101
QHEI PERFORMED? Yes V NO QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Weston NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Wood Township/City: Weston/Weston
MISCELLANEOUS
Base Flow Conditions? (Y/N):     Y     Date of last precipition:     10/20/2020     Quantity:     0.5
Photographer Information: See photopages
Elevated Turbidity? (Y/N): N Canopy (% open): 95
Were samples collected for water chemistry? (Y/N):       N       (Note lab sample no. or id. And attach results) Lab Number
Field Measures:     Temp (°C)     Dissolved Oxygen (mg/l)     pH (S.U.)     Conductivity (µmhos/cm)
Is the sampling reach representative of the stream? (Y/N) Y If not, please explain:
Additional comments/description of pollution impacts
BIOTIC EVAULATION
Performed? (Y/N): <u>N</u> (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appopriate field data sheets from the Primary Hedwater Habitat Assessment Manual)
Fish observed? (Y/N) N Voucher(Y/N) N Salamander Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher(Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

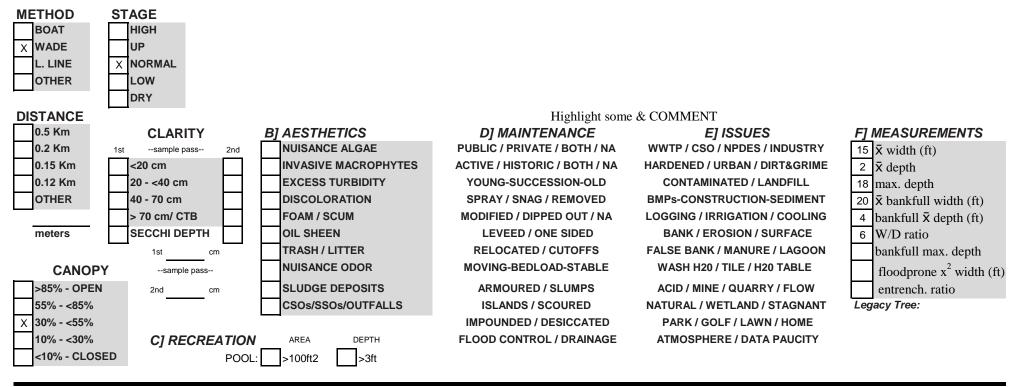
Include important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location

(see associated waters delineation report figures and photo pages)

 $FLOW \longrightarrow$ 

OhioEPAQualitative Habitat Evaluation Index and Use Assessment Field SheetQHEI Score:	57.50
	0/21/2020
Kaitlin Hillier Scorers Full Name & Affiliation: Cardno	Office verified
River Code:         -         STORET #:         Lat/ Long:         41.3358 / -83.8342	location
1] SUBSTRATE       Check ONLY Two substrate TYPE BOXES; estimate         % or note every type present       Check ONE (Or 2 & average)	
BEST TYPES       POOL       RIFFLE       OTHER TYPES       POOL       RIFFLE       ORIGIN       QUALITY         BUDR /SLABS [10]       5       1       HARDPAN [4]       1       1       HEAVY [-2]         BOULDER [9]       5       1       DETRITUS [3]       1       1       MODERATE [-1]         X       GRAVEL [7]       40       1       SILT [2]       15       15       NORMAL [0]         SAND [6]       15       ARTIFICIAL [0]       15       SANDSTONE [0]       FREE [1]       MODERATE [-1]         DBEDROCK [5]       (Score natural substrates; ignore sludge from point-sources)       SANDSTONE [0]       MODERATE [-1]       MODERATE [-1]         NONMEL [0]       3 or less [0]       sources)       SHALE [-1]       NONE [1]       NONE [1]	18.0
2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal AMOUNT	
quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in       Check ONE (Or 2 & average of the state of the stat	1
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)	
SINUOSITY       DEVELOPMENT       CHANNELIZATION       STABILITY         HIGH [4]       EXCELLENT [7]       NONE [6]       HIGH [3]         X MODERATE [3]       GOOD [5]       RECOVERED [4]       MODERATE [2]         LOW [2]       FAIR [3]       RECOVERING [3]       LOW [1]       C/         NONE [1]       POOR [1]       RECOVERING [3]       LOW [1]       C/         Comments       RECOVERING [3]       LOW [1]       C/         NONE [1]       POOR [1]       Check ONE in each category for EACH BANK (Or 2 per bank & average)         River right looking downstream       L       R RIPARIAN WIDTH       L       R FLOOD PLAIN QUALITY       L       R         X       X NONE / LITTLE [3]       MODERATE 10-50m [3]       X       X       FOREST, SWAMP [3]       URBAN OR INDUSTRIA         X       X NONE / LITTLE [3]       X       NARROW 5-10m [2]       RESIDENTIAL, PARK, NEW FIELD [1]       URBAN OR INDUSTRIA         MODERATE [2]       X       NARROW 5-10m [2]       RESIDENTIAL, PARK, NEW FIELD [1]       Indicate predominant land       Rip         Moderate [1]       NONE [0]       NONE [0]       NONE [0]       Indicate predominant land       Mix	AL [0]
use(s) past 100m riparian.	10
< 0.2m [0]	ct act × ht on back) Pool / urrent 5.0
	AIII 12
Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:       Check ONE (Or 2 & average).         RIFFLE DEPTH       RUN DEPTH       RIFFLE / RUN SUBSTRATE       RIFFLE / RUN EMBEDDE         BEST AREAS > 10cm [2]       MAXIMUM > 50cm [2]       STABLE (e.g., Cobble, Boulder) [2]       NONE [2]	
X BEST AREAS 5-10cm [1]       X MAXIMUM < 50cm [1]	Riffle / Run 4.0
Comments	8
6] GRADIENT ( 2.0 ft/mi) XVERY LOW - LOW [2-4] %POOL: 20% %GLIDE: 5% Gra	dient iimum 10
EPA 4520 excel file updated 7/30/2020	06/16/06

Check ALL that apply



Stream Drawing:

(see associated waters delineation report figures and photo pages)

Juliet Solar Project

# APPENDIX



## WETLAND AND WATERBODY IMPACT TABLES

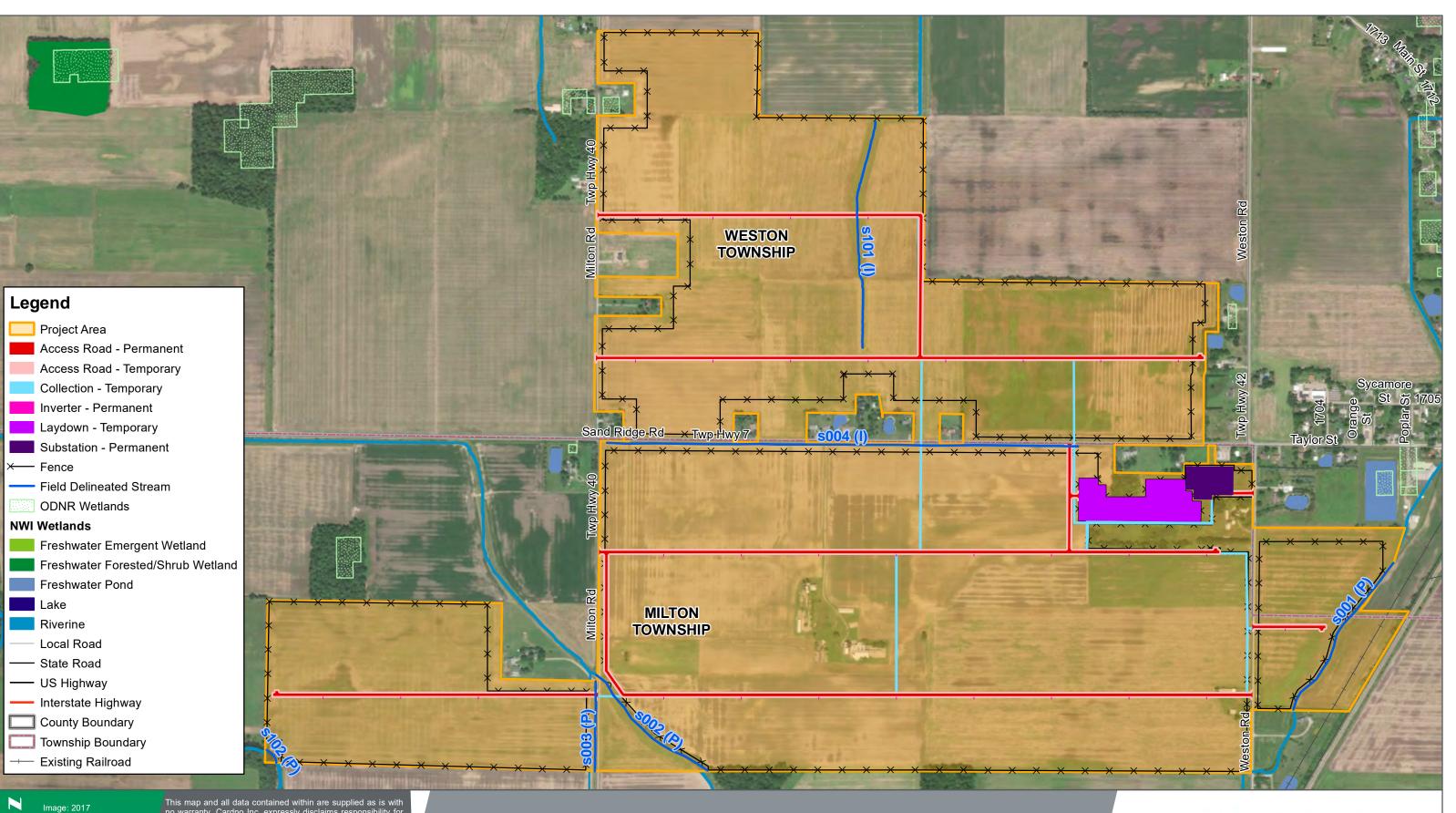


Feature ID	County	Linear Feet in Project Area	Flow Regime	Туре	Drainage Basin	Anticipated Jurisdictional (Yes/No)	Crossed (Yes/No)
S001	Wood	1,470	Perennial	Ditch	Tontogany Creek	Yes	No
S002	Wood	1,217	Perennial	Ditch	Beaver Creek - Maumee River	Yes	Yes
S003	Wood	729	Perennial	Ditch	Beaver Creek - Maumee River	Yes	Yes
S004	Wood	3,833	Intermittent	Ditch	Beaver Creek - Maumee River	Yes	Yes
S101	Wood	1,868	Intermittent	Ditch	Beaver Creek - Maumee River	Yes	Yes
S102	Wood	137	Perennial	Stream	Beaver Creek - Maumee River	Yes	No
Project	Totals	9,253				6	4

Table E-1.Waterbodies within the Juliet Solar Project Boundary

## Table E-2. Proposed Waterbody Crossing Methods and Impacts for the Juliet Solar Project

	Access Roads					Collection Lines						
Feature	Cross	sings	Temporar	y Impacts	Permaner	nt Impacts	Cross	sings	Temporar	y Impacts	Permaner	t Impacts
ID	Number of Crossings	Crossing Method	Access Road Impact (I.f.)	Access Road Impact (acre)	Access Road Impact (I.f.)	Access Road Impact (acre)	Number of Crossings	Crossing Method	Collection Line Impact (I.f.)	Collection Line Impact (acre)	Collection Line Impact (I.f.)	Collection Line Impact (acre)
S001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
S002	0	n/a	0.00	0	0.00	0	1	HDD	0	0	0	0
S003	1	Culvert	30.00	0.006887	20.00	0.00459	1	Open Cut	0	0	0	0
S004	1	Culvert	30.00	0.006887	20.00	0.00459	2	Open Cut (1), HDD (1)	20	0.005	0	0
S101	1	Culvert	31.00	0.014233	20.00	0.009183	1	HDD	0	0	0	0
S102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Project Totals	3	n/a	91	0.028	60	0.018	5	n/a	20	0.005	0	0.00



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500 750 1,000 1,250 Feet

300

400 Meters

## Figure E-1 - Proposed Project Layout

Juliet Solar Project Wood County, Ohio

#### Date Created: 2/3/2021 Date Revised: 2/3/2021 File Path: S:\GIS\7x Energy\Juliet Solar Project\MXD\Environmental Assessment\Appendix E - Proposed Project Layou

200

250

100

<u>}-</u>++++ ₀



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## APPENDIX



## INADVERTENT RELEASE OF DRILLING FLUID CONTINGENCY PLAN



## INADVERTENT RELEASE OF DRILLING FLUID CONTINGENCY PLAN

For Horizontal Directional Drilling Juliet Solar Project Wood County, Ohio

## I. Introduction

Construction of the Juliet Solar Project in Wood County, Ohio, will include the use of trenchless excavation methods known as horizontal directional drilling ("HDD"). This widely used technique accomplishes the installation of buried utilities with minimal impact, by routing the utility under a sensitive feature (such as a stream, river or wetland). The HDD procedure uses a bentonite slurry, a fine clay material as a drilling lubricant ("drilling mud"). Although bentonite is non-toxic and non-hazardous, a potential environmental risk associated with conducting HDD under sensitive features occurs when bentonite is released to the surface during construction (sometimes referred to as an inadvertent release or "frac-out").

Seepage of drilling fluid is most likely to occur near the bore entry and exit points where the drill head is shallow. Frac-outs can occur, however, in any location along a directional bore. This plan establishes operational procedures and responsibilities for the prevention, containment, and remediation of any of frac-outs that may occur in connection with the proposed HDD as part of the construction of the Juliet Solar Project.

The objectives of this Plan are to:

- 1. Minimize the potential for an inadvertent release associated with HDD activities;
- 2. Provide for the timely detection of an inadvertent release;
- 3. Protect sensitive water courses and associated riparian vegetation;
- 4. Ensure an organized, timely, and minimum-impact response in the event an inadvertent release occurs; and
- 5. Ensure that all appropriate notifications are made immediately to management and environmental personnel.

Measures to be deployed as part of the contingency plan include site inspection, proper training of the contractor and construction personnel, development of response procedures, provision of containment materials, and implementation of appropriate clean up procedures. These measures are described in detail below:

## II. <u>Description of Work</u>

Drilling operations will be carefully monitored to determine if and when a frac-out may be occurring. Operations will be halted immediately upon detection of a significant decline in drilling pressure or other evidence that a frac-out may be occurring. The clean-up of all spills shall begin immediately. Management and environmental personnel shall be notified immediately of any spills and shall be consulted regarding remediation procedures. Spill response kits shall be maintained on-site and used if a frac-out occurs. A vacuum truck and containment materials, such as straw bales, shall also be readily available. In the event of a frac-out, the on-site supervisor of construction activities ("Site Supervisor") will conduct an evaluation of the situation and direct recommended mitigation actions, based on the following guidelines:

- 1. If the frac-out is minor, easily contained, has not reached the surface, and is not threatening sensitive resources, then drilling operations may resume after use of a leak-stopping compound or redirection of the bore; and
- 2. If the frac-out has reached the surface, any hazardous materials within the bentonite shall be removed, contained and properly disposed of, as required by law. The drilling contractor shall be responsible for ensuring that the bentonite either is properly disposed of at an approved disposal facility or properly recycled in an approved manner. The Site Supervisor shall notify and take any necessary follow-up response actions in coordination with the relevant regulatory agency representatives. The Site Supervisor shall coordinate the mobilization of equipment stored at off-site locations (e.g., vacuum trucks) on an as needed basis.

## III. <u>Site Supervisor Responsibilities</u>

The Site Supervisor has ultimate responsibility for implementing this plan. The Site Supervisor shall ensure that all relevant employees are trained prior to drilling. The Site Supervisor shall be notified immediately when a frac-out is detected. The Site Supervisor shall be responsible for ensuring that environmental personnel are aware of the frac-out, and coordinate personnel, response, remediation, and regulatory agency notification. The Site Supervisor shall ensure all waste materials are properly containerized, labeled, and removed from the site to an approved disposal facility by personnel experienced in the removal, transport and disposal of drilling mud.

The Site Supervisor shall be familiar with all aspects of the drilling activity, the contents of this plan and the conditions of approval under which the HDD is authorized to take place. The Site Supervisor shall have the authority to stop work and commit the resources (personnel and equipment) necessary to implement this plan. The Site Supervisor shall ensure that a copy of this plan is available (at the project work site) and accessible to all construction personnel. The Site Supervisor shall ensure that all workers are properly trained and familiar with the necessary procedures for response to a frac-out, prior to commencement of drilling operations.

## IV. Equipment

The Site Supervisor shall ensure that:

- 1. Spill responses kit and spill containment materials are available on-site at all times, and that the equipment is in good working order;
- 2. Equipment required to contain and remediate a frac-out release either will either be available at the work site or readily available at an offsite location within 15- minutes of the bore site; and

If equipment is required to be operated adjacent to a water course, absorbent pads and plastic sheeting for placement beneath motorized equipment shall be used to protect sensitive areas from engine fluids.

## V. <u>Training</u>

Prior to the start of construction, the Site Supervisor shall ensure that relevant workers receive training in the following areas:

- 1. The provisions of this plan, equipment maintenance and site-specific permit and monitoring requirements;
- 2. Inspection procedures for release prevention and containment equipment and materials;
- 3. Contractor/employee obligations to immediately stop the drilling operation upon first evidence of the occurrence of a frac-out and to immediately report any frac-out releases;
- 4. Contractor/employee responsibilities in the event of a release;
- 5. Operation of release prevention and control equipment and the location of release control materials, as necessary and appropriate; and
- 6. Protocols for communication with relevant regulatory agency representatives who might be on-site during the remediation effort.

## VI. <u>Procedures</u>

The following procedures shall be followed each day, prior to the start of work. This plan shall be available on-site during all construction. The Site Supervisor shall be on-site at any time that HDD is occurring or is planned to occur. The Site Supervisor shall ensure that a briefing is held at the start of each day of HDD to review the appropriate procedures to be followed in case of a frac-out. Questions shall be answered and clarification given on any point over which the HDD operating crew or other employees or contractors have concerns.

## A. Drilling

Drilling pressures shall be closely monitored so they do not exceed those needed to penetrate the target formation. Pressure levels shall be monitored randomly by the operator. Pressure levels shall be set at a minimum level to prevent frac-outs. During the pilot bore, the drilled annulus shall be maintained. Cutters and reamers shall be pulled back into previously-drilled sections after each new joint of pipe is added.

Exit and entry pits shall be enclosed by silt fences and straw or similar material. A spill kit shall be on-site and used if a frac-out occurs. A vacuum truck shall be readily available prior to and during all HDD operations. Containment materials (straw, silt fencing, sand bags, frac-out spill kits, etc.) shall be staged on-site at locations where they are readily available and easily mobilized for immediate use in the event of a frac-out. If necessary, barriers (straw bales or sedimentation fences) between the bore site and the edge of the water source, shall be constructed, prior to drilling, to prevent released bentonite material from reaching the water.

Once the drill rig is in place, and drilling begins, the drill operator shall stop work whenever the pressure in the drill rig significantly drops or there is a lack of returns in the entrance pit. If either of these occur, the Site Supervisor shall be informed that a possible frac-out has occurred. The

Site Supervisor and the drill rig operator(s) shall work to coordinate the likely location of the fracout.

The location of the frac-out shall be recorded and notes made on the location and measures taken to address the concern. The following subsections shall be adhered to when addressing a frac-out situation.

Water containing mud, silt, bentonite, or other pollutants from equipment washing or other activities, shall not be allowed to enter any water course. The bentonite used in the drilling process shall be either disposed of at an approved disposal facility or recycled in an approved manner. Other construction materials and wastes shall be recycled, or disposed of, as appropriate.

## B. Vacuum Truck

A vacuum truck shall be staged at a location from which it can be mobilized and relocated so that any place along the drill shot, can be reached by the apparatus, within thirty (30) minutes of information indicating a possible frac-out.

## C. Field Response

The response of the field crew to a frac-out release shall be immediate and in accordance with procedures set forth in this plan. All appropriate emergency actions that do not pose additional threats to sensitive resources will be taken, as follows:

- 1. Boring shall stop immediately;
- 2. The bore stem shall be pulled back to relieve pressure on the frac-out;
- 3. The Site Supervisor shall be notified to ensure that management and environmental personnel are notified, adequate response actions are taken and required notifications are made;
- 4. The Site Supervisor shall evaluate the situation and recommend the type and level of response warranted, including the level of notification required;
- 5. If the frac-out is minor, easily contained, has not reached the surface and is not threatening any sensitive resources, then a leak-stopping compound shall be employed to block the frac-out. If the use of leak-stopping compound is not fully successful, then the bore stem shall be redirected to a new location along the desired drill path (i.e., where a frac-out has not occurred);
- 6. If the frac-out has reached the surface, any hazardous materials within the bentonite shall be removed to a depth of 48 inches, contained and properly disposed of, as required by law. A dike or berm may be constructed around the frac-out to entrap released drilling fluid, if necessary. Clean sand shall be deployed and the area returned to pre-project contours; and
- 7. If a frac-out occurs, reaches the surface and becomes widespread, the Site Supervisor shall authorize a vacuum truck and bulldozer stored off-site to be mobilized. The vacuum

truck may be either positioned at either end of the line of the drill so that the frac-out can be reached by crews on foot, or may be pulled by a bulldozer, so that contaminated soils can be vacuumed up.

## D. Response Close-out Procedures

- 1. When the release has been contained and remediated, response close-out activities shall be conducted at the direction of the Site Supervisor. These activities shall include those below.
- 2. The recovered drilling fluid shall either be recycled or transported to an approved facility for disposal. No recovered drilling fluids may be discharged into streams, storm drains or any other water source;
- 3. All frac-out excavation and remediation sites shall be returned to pre-project contours using clean fill, as necessary; and
- 4. All containment measures (fiber rolls, straw bale, etc.) shall be removed, unless otherwise specified by the Site Supervisor.

## E. Resumption of HDD

For minor releases not necessitating external notification, HDD may continue, if full containment is achieved through the use of a leak-stopping compound or redirection of the bore and the cleanup crew remains at the frac-out location throughout the HDD activity. For releases necessitating external notification, HDD activities shall not restart without prior approval from the Site Supervisor.

## F. Bore Abandonment

Abandonment of the bore will only be required when all efforts to control the frac-out within the existing directional bore have failed.

## VII. <u>Notification</u>

In the event of a frac-out that reaches a water source, the Site Supervisor shall notify safety personnel so they can notify the appropriate regulatory agencies. All agency notifications will occur within 24 hours and proper documentation will be created in a timely and complete manner.

The following information will be provided:

- 1. Name and telephone number of person reporting;
- 2. Location of the release;
- 3. Date and time of release;
- 4. Type and quantity, estimated size of release;

- 5. How the release occurred;
- 6. The type of activity that was occurring around the area of the frac-out;
- 7. Description of any sensitive areas, and their location in relation to the frac-out; and
- 8. Description of the methods used to remediate the site.

### A. Communicating with Regulatory Agency Personnel

All employees and subcontractors shall adhere to the following protocols when regulatory agency personnel arrive on site. Regulatory agency personnel shall be required to comply with appropriate safety rules. Only the Site Supervisor, safety personnel and environmental should coordinate communication with regulatory agency personnel.

### **B.** Documentation

The Site Supervisor shall record the frac-out event in his or her daily log. The log will include the following:

- 1. Details on the release event, including an estimate of the amount of bentonite released;
- 2. The location and time of release;
- 3. The size of the area impacted, and the success of the remediation action;
- 4. Name and telephone number of person reporting;
- 5. Date;
- 6. How the release occurred;
- 7. The type of activity that was occurring around the area of the frac-out:
- 8. Description of any sensitive areas, and their location in relation to the frac-out;
- 9. Description of the methods used to remediate the site; and
- 10. Listing of the water-related permits for the project.

### VIII. Project Completion and Clean-up

- 1. All materials and any rubbish-construction debris shall be removed from the construction zone at the end of each work day;
- 2. Sump pits at bore entry and exits will be filled and returned to natural grade; and
- 3. All protective measures (fiber rolls, straw bale, silt fence, etc.) will be removed unless otherwise specified by the Site Supervisor.

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3/12/2021 2:23:31 PM

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Case No(s). 20-1760-EL-BGN

Summary: Application Exhibit E - Ecological Assessment Part 4 of 4 electronically filed by Teresa Orahood on behalf of Dylan F. Borchers