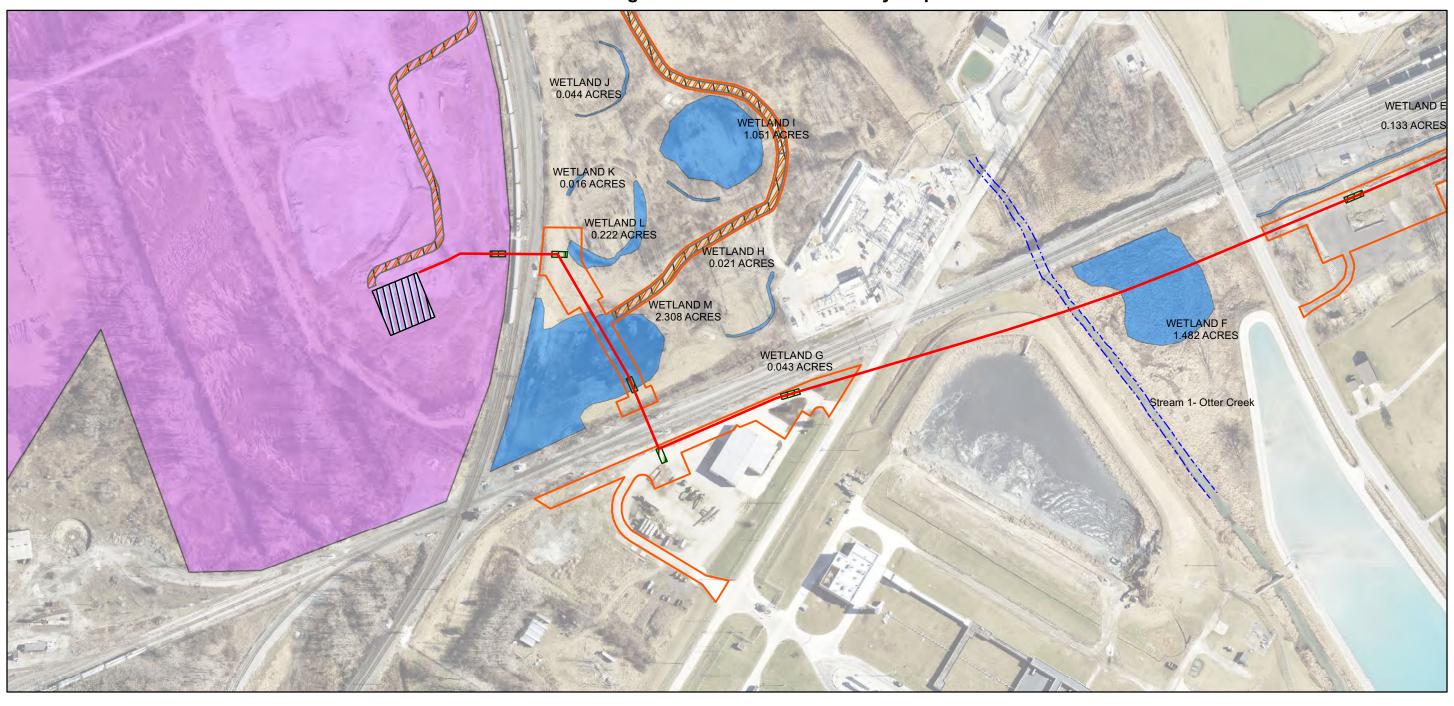
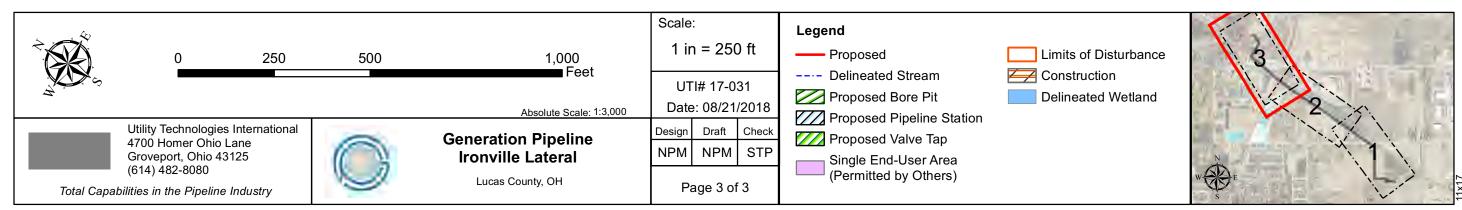
Figure 4- Environmental Survey Map





APPENDIX B

PHOTOGRAPH LOG





1. Wetland A – View east from data point A1.





2. Wetland A – View north from data point A1.



3. Wetland A – View south from data point A1.



4. Wetland A – View west from data point A1.



5. Wetland A – View east from data point A2.



6. 5. Wetland A – View north from data point A2.

Date of Photographs: April 5 & July 11, 2018



Project Name: Generation Pipeline – Ironville Lateral Project



Date of Photographs: April 5 & July 11, 2018



Project Name: Generation Pipeline – Ironville Lateral Project 14. 13. Wetland C – View north. 13. Wetland C – View east. 15. 13. Wetland C – View south. 16. 13. Wetland C – View west. 17. Wetland D – View east. 18. Wetland D – View north.

 $\textbf{Date of Photographs:} \ \, \mathsf{April} \, \mathbf{5} \, \, \mathbf{\&} \, \mathsf{July} \, \mathbf{11,2018}$



Project Name: Generation Pipeline – Ironville Lateral Project



19. Wetland D – View south.



20. Wetland D - View west.



21. Wetland E – View west of ditch at culvert crossing under Otter Creek Road.



22. Wetland E – View east of ditch at culvert crossing under Otter Creek Road.



23. Wetland F – View northwest from Otter Creek Road.



24. Wetland F – View south along Otter Creek Road.

Date of Photographs: April 5 & July 11, 2018



Project Name: Generation Pipeline – Ironville Lateral Project



25. Wetland G – View east.



26. Wetland H – View north of start of wetland. Note abandoned fuel tank valve.



27. Wetland H – View south.



28. Wetland J – View east along central portion of wetland.



29. Wetland K – View of central portion of wetland.



30. Wetland L – View east.

Date of Photographs: April 5 & July 11, 2018



Project Name: Generation Pipeline – Ironville Lateral Project



31. Wetland L – View north.



32. Wetland L – View south.



33. Wetland L – View west.



34. Wetland M – View east.



35. Wetland M – View north.



36. Wetland M – View south.

Date of Photographs: April 5 & July 11, 2018





37. Wetland M - View west.

Project Name: Generation Pipeline – Ironville Lateral Project

Date of Photographs: April 5 & July 11, 2018 Environmental Survey

APPENDIX C

WETLAND DATA FORMS

Project/Site: GPL - Ironville		_City/County:	Lucas	Sampling Date: A	oril 5, 2018
Applicant/Owner: Generation Pipeline		_	State: C	OH Sampling Poir	nt: Wet A.1
Investigator(s): S. Peffer/N. Daniels			Section,	Township, Range: Oregon	
Landform (hillslope, terrace, etc.):		Loc	- cal relief (d	concave, convex, none): N	one
Slope (%): 2 Lat.: 49deg39'26.	.02"N Long.:	83deg27'22.22'	"W Datui	m:	
Soil Map Unit NameLatty silty clay				NWI Classification: PEM	
Are climatic/hydrologic conditions of the site	typical for this	time of the year	? Yes	(If no, explain in remarks)	
Are vegetation , soil , or	hydrology	significantly	y disturbed	d? Are "normal	
Are vegetation , soil , or	hydrology	naturally pr	oblematic	? circumstances" pr	esent?
(If needed, explain any answers in remarks)					
SUMMARY OF FINDINGS					
Hydrophytic vegetation present?	<u>Y</u>	Is the sample	d area with	hin a wetland?	<u>/</u>
Hydric soil present?	<u>Y</u>				
Indicators of wetland hydrology present?	Y	If yes, optional	wetland si	ite ID:	
				•	
Remarks: (Explain alternative procedures he	ere or in a sepa	arate report.)			
LIVEROLOGY					
HYDROLOGY					
				Secondary Indicators (mir	nimum of two
Primary Indicators (minimum of one is require	•			required)	
Surface Water (A1)		ned Leaves (B9)		Surface Soil Cracks (B	
High Water Table (A2)	Aquatic Fa	una (B13)		Drainage Patterns (B10))
X Saturation (A3)	Marl Depos	sits (B15)		Moss Trim Lines (B16)	
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)		Dry-Season Water Tab	le (C2)
Sediment Deposits (B2)	Oxidized RI	hizospheres on Li	iving	Crayfish Burrows (C8)	
Drift Deposits (B3)	Roots (C3)			Saturation Visible on A	erial Imagery
Algal Mat or Crust (B4)	Presence o	of Reduced Iron (C	C4)	(C9)	
Iron Deposits (B5)	Recent Iron	Reduction in Till	ed	Stunted or Stressed Pla	
Inundation Visible on Aerial	Soils (C6)			Geomorphic Position (I	02)
X Imagery (B7)	Thin Muck	Surface (C7)		Shallow Aquitard (D3)	
Sparsely Vegetated Concave	Other (Expl	ain in Remarks)		FAC-Neutral Test (D5)	
Surface (B8)				Microtopographic Relie	f (D4)
Field Observations:					
Surface water present? Yes	No X	_Depth (inches)		Indicators of	
Water table present? Yes	No X	Depth (inches)		wetland	
Saturation present? Yes X	No	Depth (inches)	:	hydrology	
(includes capillary fringe)				present?	<u>Y</u>
Describe recorded data (stream gauge, mor	iltoring well, ae	erial photos, prev	ious inspe	ections), if available:	
Domonico					
Remarks:					

SOIL **Sampling Point:** Wet A.1 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Loc** Color (moist) % Type* 10YR 4/1 0-16+ 80 Loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) (LRR K, L) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) X Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (TF2) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? Y Depth (inches): Remarks:

Project/Site: GPL - Ironville		_City/County:	Lucas		Sampling Date: April	5, 2018
Applicant/Owner: Generation Pipeline		_	State:	ОН	Sampling Point:	Wet A.2
S. Peffer/N. Daniels			Section	, Townshi	p, Range: Oregon	
Landform (hillslope, terrace, etc.):		Loc	al relief	(concave,	convex, none): None	
Slope (%): 2 Lat.: 41deg39'2.5	59"N Long.:	83deg27'28.47	"W Dat	tum:	-	
Soil Map Unit NameLatty silty clay				NWI	Classification: PEM	
Are climatic/hydrologic conditions of the site	typical for this	time of the year	? Yes	s (If no,	explain in remarks)	
Are vegetation , soil , or		significantly		ed?	Are "normal	
	hydrology	naturally pr	oblemat	ic?	circumstances" prese	nt? Yes
(If needed, explain any answers in remarks)					·	
SUMMARY OF FINDINGS						
Hydrophytic vegetation present?	Υ	Is the sample	d area w	ithin a we	tland? Y	
Hydric soil present?	<u>Y</u>					_
		If yes, optional	wetland	site ID:		
Remarks: (Explain alternative procedures he	ere or in a sepa	arate report.)				
	·	. ,				
HYDROLOGY						
				Seco	ndary Indicators (minimu	ım of two
Primary Indicators (minimum of one is requi	ired; check all t	hat apply)		requir	red)	
Surface Water (A1)	Water-Stair	ned Leaves (B9)		S	urface Soil Cracks (B6)	
High Water Table (A2)	Aquatic Fa	una (B13)		— _D	rainage Patterns (B10)	
X Saturation (A3)	Marl Depos	sits (B15)		M	loss Trim Lines (B16)	
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)		— _D	ry-Season Water Table (0	C2)
Sediment Deposits (B2)	Oxidized RI	hizospheres on Li	ving	— _C	rayfish Burrows (C8)	
Drift Deposits (B3)	Roots (C3)		•	— _s	aturation Visible on Aeria	Imagery
Algal Mat or Crust (B4)	Presence o	of Reduced Iron (C	C4)	(C	C9)	
Iron Deposits (B5)	Recent Iron	Reduction in Till	ed		tunted or Stressed Plants	(D1)
Inundation Visible on Aerial	Soils (C6)				eomorphic Position (D2)	
X Imagery (B7)		Surface (C7)		— _s	hallow Aquitard (D3)	
Sparsely Vegetated Concave	Other (Expl	ain in Remarks)		— _F	AC-Neutral Test (D5)	
Surface (B8)				M	licrotopographic Relief (D	4)
Field Observations:						
Surface water present? Yes	No X	Depth (inches)	:		Indicators of	
Water table present? Yes	No X	Depth (inches)	:		wetland	
Saturation present? Yes X	No	Depth (inches)	:		hydrology	
(includes capillary fringe)		_			present? Y	
						_
Describe recorded data (stream gauge, mor	nitoring well, ae	rial photos, prev	ious ins	pections), i	if available:	
Remarks:						

SOIL **Sampling Point:** Wet A.2 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Loc** Color (moist) % Type* 10YR 4/1 0-16+ 80 Loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) (LRR K, L) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) X Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (TF2) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? Y Depth (inches): Remarks:

Project/Site: GPL - Ironville		_City/County:	Lucas		Sampling Date: <u>April</u>	5, 2018
Applicant/Owner: Generation Pipeline		_	State:	ОН	Sampling Point:	Wet B
Investigator(s): S. Peffer/N. Daniels			Section	, Township	o, Range: Oregon	
Landform (hillslope, terrace, etc.):					convex, none): None	e
	02"N Long.:	83deg27'22.22'	<u>"W</u> Dat			
Soil Map Unit NameLatty silty clay			-	NWI (Classification: PEM	
Are climatic/hydrologic conditions of the site	typical for this			`	explain in remarks)	
Are vegetation, soil, or l		significantly			Are "normal	
	nydrology	naturally pr	oblemat	ic?	circumstances" pres	ent?
(If needed, explain any answers in remarks)						
SUMMARY OF FINDINGS						
SUMMART OF FINDINGS						
Hydrophytic vegetation present?	Y	Is the sampled	d area w	ithin a we	tland? Y	
Hydric soil present?	<u> </u>					
-		If yes, optional	wetland	site ID:		
-		ii yoo, optioriai	Wottana			
Remarks: (Explain alternative procedures he	ere or in a sepa	rate report.)				
` '	•	, ,				
HYDROLOGY						
				Secor	ndary Indicators (minim	ium of two
Primary Indicators (minimum of one is requir	ed; check all the	nat apply)		requir	red)	
Surface Water (A1)	Water-Stair	ned Leaves (B9)		S	urface Soil Cracks (B6)	
High Water Table (A2)	Aquatic Fau	ına (B13)		D	rainage Patterns (B10)	
X Saturation (A3)	Marl Depos	its (B15)			oss Trim Lines (B16)	
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)		D	ry-Season Water Table	(C2)
Sediment Deposits (B2)		nizospheres on Li	ving	c	rayfish Burrows (C8)	
Drift Deposits (B3)	Roots (C3)				aturation Visible on Aeria	al Imagery
Algal Mat or Crust (B4)		f Reduced Iron (C	,		29)	
Iron Deposits (B5)		Reduction in Till	ed		tunted or Stressed Plant	
Inundation Visible on Aerial	Soils (C6)				eomorphic Position (D2))
X Imagery (B7)		Surface (C7)			hallow Aquitard (D3)	
Sparsely Vegetated Concave	Other (Expl	ain in Remarks)			AC-Neutral Test (D5)	- 43
Surface (B8)				M	icrotopographic Relief ([<i>)</i> 4)
Field Observations:						
Surface water present? Yes	No X	Depth (inches):			Indicators of	
Water table present? Yes	No $\frac{X}{X}$	Depth (inches):			wetland	
Saturation present? Yes X	No X	Depth (inches):			hydrology	
(includes capillary fringe)		_ Bopui (moneo):			present? Y	
(morados capinary minge)					<u> </u>	
Describe recorded data (stream gauge, mon	itoring well, ae	rial photos, prev	ious insi	pections), i	f available:	
3	J , , , ,	, , , , , , ,		,,		
Remarks:						

SOIL							Sa	ampling Point: Wet B
	cription: (Descri Matrix	be to th		to docun		indicato	or or confirm the absence	e of indicators.)
Depth (Inches)	Color (moist)	%	Color (moist)	% Feat	Type*	Loc**	Texture	Remarks
0-16+	10YR 4/1	80			. , , , ,		Loam	
*Type: C=C	Concentration D	-Deplet	l ion RM=Reduce	l Matrix	CS=C	overed c	r Coated Sand Grains	
	PL=Pore Lining,			, a maan,	., 00 0	0,0,00	r coatoa caria cramo	
Hydric Soi	I Indicators:						Indicators for Pro	blematic Hydric Soils:
His Bla Hyd Stra Dep Thic Sar Sar Sar Sar 149	,	,44) 5) k Sufac (A12) ral (S1) x (S4) LRR R,	(S8	yvalue B i) (LRR F in Dark S RR R, ML amy Muc RR K, L) amy Gley bleted Ma dox Dark bleted Da dox Depr	R, MLRA Surface (LRA 149 kky Mine yed Matri atrix (F3 a Surface ark Surf ressions	A 149B) (S9) OB eral (F1) rix (F2) 3) e (F6) Face (F7) s (F8)	Coast Prairie R 5 cm Mucky Pe Dark Surface (Polyvalue Belo Thin Dark Surfa Iron-Manganes Piedmont Floor Mesic Spodic (Red Parent Ma	w Surface (S8) (LRR K, L) ace (S9) (LRR K, L) e Masses (F12) (LRR K, L, R) dplain Soils (F19) (MLRA 149B) TA6) (MLRA 144A, 145, 149B) terial (TF2) bark Surface (TF12) in Remarks)
Restrictive Type: Depth (inch	Layer (if observe	ed):					Hydric soil prese	nt? <u>Y</u>
Remarks:								

Project/Site: GPL - Ironville		City/County:	Lucas		Sampling Date: April 5, 2018
Applicant/Owner: Generation Pipeline		_	State:	ОН	Sampling Point: Wet C
Investigator(s): S. Peffer/N. Daniels			_ Section	, Town	ship, Range: Oregon
Landform (hillslope, terrace, etc.):		Lo	cal relief	(conca	ive, convex, none):
Slope (%): 2 Lat.: 41deg39'34	.37"N Long.	: 83deg27'40.58	3"W Dat		·
Soil Map Unit Name Latty silty clay					WI Classification: PEM
Are climatic/hydrologic conditions of the site	typical for this			`	no, explain in remarks)
Are vegetation, soil, or		significant			Are "normal
	hydrology	naturally p	roblemati	ic?	circumstances" present? Yes
(If needed, explain any answers in remarks)					
SUMMARY OF FINDINGS					
SUMMART OF FINDINGS					
Hydrophytic vegetation present?	Υ	Is the sample	d area w	ithin a	wetland?
Hydric soil present?	<u> </u>	io tiio odiiipio	u u.ou	u	
Indicators of wetland hydrology present?		If yes, optional	haelland	cita ID:	
indicators of welland flydrology present:		ii yes, optional	i wellanu	SILE ID.	•
Remarks: (Explain alternative procedures he	ere or in a sepa	arate report.)			
Tromano. (Explain alternative precedures in	510 01 III a 00p.	arato roporti,			
HYDROLOGY					
				Se	econdary Indicators (minimum of two
Primary Indicators (minimum of one is requi	red: check all t	that apply)			quired)
Surface Water (A1)		ined Leaves (B9)			Surface Soil Cracks (B6)
High Water Table (A2)	—— Aquatic Fa				Drainage Patterns (B10)
X Saturation (A3)	— . Marl Depo				Moss Trim Lines (B16)
Water Marks (B1)		Sulfide Odor (C1)			Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized F	Rhizospheres on L	iving		Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3))	-		Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence	of Reduced Iron (C4)		(C9)
Iron Deposits (B5)	Recent Iro	n Reduction in Til	led		Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)				Geomorphic Position (D2)
Imagery (B7)	Thin Muck	Surface (C7)			Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Exp	olain in Remarks)			FAC-Neutral Test (D5)
Surface (B8)					Microtopographic Relief (D4)
F: 1101					_
Field Observations:					
Surface water present? Yes	No X	Depth (inches)	, <u> </u>		Indicators of
Water table present? Yes	No X	Depth (inches)			wetland
Saturation present? Yes X	No	Depth (inches)):		hydrology
(includes capillary fringe)					present? Y
D 1	.,,			· ·	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Describe recorded data (stream gauge, mor	nitoring well, as	eriai pnotos, prev	ious insp	ections	s), it available:
Remarks:					

SOIL **Sampling Point:** Wet C Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Matrix Remarks Texture (Inches) Color (moist) % Loc** Color (moist) % Type* 10YR 4/1 0-16+ 80 RMΜ Loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLRA 149B Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Suface (A11) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K. L. R) X Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (TF2) Sandy Redox (S5) Depleted Dark Surface (F7) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? Y Depth (inches): Remarks:

Project/Site: GPL - Ironville		City/County:	Lucas	Sampling Date: April 5, 2018
Applicant/Owner: Generation Pipeline		_	State:	OH Sampling Point: Wet D
Investigator(s): S. Peffer/N. Daniels			Section,	Township, Range: Oregon
Landform (hillslope, terrace, etc.):		Lo	cal relief (concave, convex, none):
Slope (%): 2 Lat.: 41deg39'46	.82"N Long.:	83deg28'5.90"	W Datu	
Soil Map Unit Name Fulton silty clay loam				NWI Classification: PEM
Are climatic/hydrologic conditions of the site	typical for this	time of the year	? Yes	(If no, explain in remarks)
Are vegetation , soil , or	hydrology	significant	ly disturbe	
Are vegetation , soil , or	hydrology	naturally p	roblemation	c? circumstances" present? Yes
(If needed, explain any answers in remarks)				
SUMMARY OF FINDINGS				
SUMMART OF FINDINGS				
Hydrophytic vegetation present?	Y	Is the sample	d area wi	thin a wetland?
Hydric soil present?	<u>Y</u>			
Indicators of wetland hydrology present?	<u> </u>	If yes, optional	l wetland s	site ID:
Remarks: (Explain alternative procedures he	ere or in a sepa	rate report.)		
()		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
HYDROLOGY				
HTDROLOGT				
				Secondary Indicators (minimum of two
Primary Indicators (minimum of one is requi				required)
Surface Water (A1)		ned Leaves (B9)		Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fa			Drainage Patterns (B10)
X Saturation (A3)	Marl Depos			Moss Trim Lines (B16)
Water Marks (B1)		Sulfide Odor (C1)		Dry-Season Water Table (C2)
Sediment Deposits (B2)		hizospheres on L	lving	Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3)		04)	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)		of Reduced Iron (,	(C9)
Iron Deposits (B5)		n Reduction in Til	led	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)	0 ((07)		Geomorphic Position (D2)
Imagery (B7)		Surface (C7)		Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Exp	lain in Remarks)		FAC-Neutral Test (D5)
Surface (B8)				Microtopographic Relief (D4)
Field Observations:				
Surface water present? Yes	No X	Depth (inches)):	Indicators of
Water table present? Yes	No X	Depth (inches)	<i></i>	wetland
Saturation present? Yes X	No No	Depth (inches)		hydrology
(includes capillary fringe)		_ Boptii (illorico)	,	present? Y
(includes capillary fillige)				present:
Describe recorded data (stream gauge, mor	nitoring well. ae	rial photos, prev	ious inspe	ections), if available:
(J, 0.0	,, ,,,		,,
_				
Remarks:				

SOIL								Sampling Point:	Wet D
Profile Dose	eription: (Descri	ha ta the	a donth noodod t	o docum	mont the	indicato	r or confirm the abse	nco of indicators \	
Depth	Matrix	oe to tile	Redox Features			Indicato		Remarks	
(Inches)	I I		%	Type*	Loc**	Texture			
0-16+	10YR 4/1				M	Loam			
0-101	10111 4/1	- 00			IXIVI	IVI	Loam		
					<u> </u>				
					ļ				
				d Matrix	, CS=Co	vered o	r Coated Sand Grains		
**Location:	PL=Pore Lining,	M=Mat	rix						
Hydric Soil	Indicators:						Indicators for P	roblematic Hydric Soils	; :
Hissi Black Hyde Strate Strate Sar Sar Strie Dar 149	of hydrophytic ve	(A1) (k Suface (A12)) (LRR in Dark Str. R. Millimy Muck R. K., L.) in y Gleboleted Millimy Clark Doleted D	yed Matr latrix (F3 k Surface ark Surfa ressions	A 149B) S9) BB ral (F1) ix (F2) S) e (F6) ace (F7)	Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodi Red Parent I Very Shallow	A10) (LRR K, L, MLRA 1 e Redox (A16) (LRR K, L) Peat or Peat (S3) (LRR II e (S7) (LRR K, L) e (S7) (LRR K, L) e (S9) (MLR K, L) e (S9) (MLRA 144A, 14) Material (TF2) v Dark Surface (TF12) e (TT12) e (T	., R) K, L, R) K, L) K, L, R) RA 149B)
Type:	Layer (if observe	ed):			_		Hydric soil pre	sent? <u>Y</u>	
Depth (inch	es):				-				
Remarks:									

Project/Site: GPL - Ironville		City/County:	Lucas	Sampling Date: April 5, 2018				
Applicant/Owner: Generation Pipeline	State: Of	H Sampling Point: Wet G						
Investigator(s): S. Peffer/N. Daniels	Section, To	ownship, Range: Oregon						
Landform (hillslope, terrace, etc.): Depre	cal relief (co	ncave, convex, none):						
Slope (%): 2 Lat.: 41deg40'4	.48"N Long.	: 83deg28'24.5	5"W Datum	:				
Soil Map Unit Name Fulton silty clay loam				NWI Classification: PEM				
Are climatic/hydrologic conditions of the si	te typical for this	s time of the yea	r? Yes	(If no, explain in remarks)				
Are vegetation , soil , o	r hydrology	significant	ly disturbed?	Are "normal				
Are vegetation , soil , o	r hydrology	naturally p	roblematic?	circumstances" present? Yes				
(If needed, explain any answers in remarks	s)							
SUMMARY OF FINDINGS								
Hudrophytic vegetation present?	Y	le the cample	d area withi	in a wetland?				
Hydrophytic vegetation present? Hydric soil present?	$\frac{1}{Y}$	Is the sample	u area witii	iii a wetialiu:				
	<u>'</u>	If you options	l wotland site	ND:				
Indicators of wetland hydrology present?	<u> </u>	If yes, optiona	i welland site	e ID				
Remarks: (Explain alternative procedures	nere or in a sep	arate report.)						
This is a man-made area located i	n an abandor	ned petroleum	storage va	ard.				
			3, 7,					
HYDROLOGY								
				Secondary Indicators (minimum of two				
Primary Indicators (minimum of one is requ	iired: check all	that apply)		required)				
Surface Water (A1)		ined Leaves (B9)		Surface Soil Cracks (B6)				
High Water Table (A2)	Aquatic Fa	, ,		Drainage Patterns (B10)				
X Saturation (A3)	Marl Depo			Moss Trim Lines (B16)				
Water Marks (B1)		Sulfide Odor (C1))	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Rhizospheres on I						
Drift Deposits (B3)	Roots (C3	•	g	Saturation Visible on Aerial Imagery				
Algal Mat or Crust (B4)		, of Reduced Iron (C4)	(C9)				
Iron Deposits (B5)		n Reduction in Ti		Stunted or Stressed Plants (D1)				
Inundation Visible on Aerial	Soils (C6)			Geomorphic Position (D2)				
Imagery (B7)	Thin Muck	Surface (C7)		Shallow Aquitard (D3)				
Sparsely Vegetated Concave		olain in Remarks)		FAC-Neutral Test (D5)				
Surface (B8)	` `	,		Microtopographic Relief (D4)				
Field Observations:								
Surface water present? Yes X	No	_ Depth (inches		_ Indicators of				
Water table present? Yes	No X	Depth (inches		wetland				
Saturation present? Yes X	No	Depth (inches):	hydrology				
(includes capillary fringe)		_		present? Y				
Describe recorded data (stream gauge, me	onitoring well, a	erial photos, pre	vious inspec	tions), if available:				
Remarks:								
Nomains.								

SOIL Wet G **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Loc** Color (moist) Type* 10YR 4/1 0-16+ 80 RMΜ Loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) (LRR K, L) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) X Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (TF2) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? Y Depth (inches): Remarks: Are disturbed in the past.

Project/Site: GPL - Ironville	City/County:	Lucas	Sampling Date: April 5, 2018
Applicant/Owner: Generation Pipeline		State: 0	OH Sampling Point: Wet H
Investigator(s): S. Peffer/N. Daniels			Township, Range: Oregon
Landform (hillslope, terrace, etc.): Depression			concave, convex, none):
	ong.: 83deg28'24.55	<u>"W</u> Datu	
Soil Map Unit Name Fulton silty clay loam	4l-: 4: 4l	2 //	NWI Classification: PEM
Are climatic/hydrologic conditions of the site typical fo			(If no, explain in remarks)
Are vegetation , soil , or hydrolog Are vegetation , soil , or hydrolog			
Are vegetation, soil, or hydrolog (If needed, explain any answers in remarks)	ynaturany pi	Порієптанс	c? circumstances" present? Yes
(ii ficeded, explain any answers in remarks)			
SUMMARY OF FINDINGS			
Hydrophytic vegetation present? Hydric soil present? Y Y Y	Is the sample	d area wit	thin a wetland? Y
Indicators of wetland hydrology present?	If yes, optional	wetland s	ite ID:
Remarks: (Explain alternative procedures here or in a	a separate report.)		
This is a man made area located in an abo	ndoned netrologing	otorogo i	rowd.
This is a man-made area located in an abar	naonea petroleum s	siorage y	yaru.
HYDROLOGY			
			Secondary Indicators (minimum of two
Primary Indicators (minimum of one is required; chec	k all that annly)		required)
	er-Stained Leaves (B9)		Surface Soil Cracks (B6)
	atic Fauna (B13)		Drainage Patterns (B10)
	Deposits (B15)		Moss Trim Lines (B16)
	ogen Sulfide Odor (C1)		Dry-Season Water Table (C2)
	ized Rhizospheres on Li	iving	Crayfish Burrows (C8)
<u> </u>	s (C3)		Saturation Visible on Aerial Imagery
<u> </u>	ence of Reduced Iron (0	•	(C9)
	ent Iron Reduction in Till	ed	Stunted or Stressed Plants (D1)
	(C6)		Geomorphic Position (D2)
<u> </u>	Muck Surface (C7)		Shallow Aquitard (D3)
· · · · · · · · · · · · · · · · · · ·	r (Explain in Remarks)		FAC-Neutral Test (D5)
Surface (B8)			Microtopographic Relief (D4)
Field Observations:			
Surface water present? Yes X No	Depth (inches)	:	Indicators of
Water table present? Yes No	X Depth (inches)	:	wetland
Saturation present? Yes X No	Depth (inches)	:	hydrology
(includes capillary fringe)			present? Y
Describe recorded data (atracare accord rescribering or	all assistant shotos sussi	iaua inana	ations) if available.
Describe recorded data (stream gauge, monitoring w	eii, aeriai photos, previ	ious inspe	ections), if available:
Remarks:			

							Sampling Point: Wet H		
anintian. (Dagari	h a 4 a 4 b	a danth naadad t			indiaata	u ou oomfirme the observe	on of indicators		
	be to th				indicato	r or confirm the absenc	·		
	%				Loc**	Texture	Remarks		
		Color (moist)		T		Loam			
1011(4/1	00			IXIVI	IVI	Loaiii			
				1					
				 			+		
				 					
				<u> </u>					
				<u> </u>					
1							+		
				<u> </u>					
				<u> </u>					
				ļ					
				<u> </u>					
			d Matrix	c, CS=Cc	overed o	r Coated Sand Grains			
il Indicators:						Indicators for Pro	oblematic Hydric Soils:		
rdrogen Sulfide (A ratified Layers (As epleted Below Dan ick Dark Surface andy Mucky Miner andy Gleyed Matri andy Redox (S5) ripped Matrix (S6) ark Surface (S7) (5) rk Sufact (A12) ral (S1) x (S4) LRR R,	(LR	RR, Milling Mud RR, L) Imy Glei Dieted M dox Darl Dieted D dox Dep	LRA 149 cky Mine yed Matr latrix (F3 k Surface eark Surface pressions	ral (F1) rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface of Polyvalue Below Thin Dark Surface of Polyvalue Below Iron-Mangane Piedmont Floom Mesic Spodic Red Parent March Very Shallow Other (Explain	Dark Surface (TF12) in Remarks)		
	ed):			- -		Hydric soil pres	ent? <u>Y</u>		
turbed in the pa	ast.								
	Matrix Color (moist) 10YR 4/1 10YR 4/1 Concentration, D= : PL=Pore Lining, il Indicators: stisol (A1) stic Epipedon (A2 ack Histic (A3) ydrogen Sulfide (A ratified Layers (A4 epleted Below Dan ick Dark Surface andy Mucky Miner andy Gleyed Matrix andy Gleyed Matrix andy Redox (S5) ripped Matrix (S6) ark Surface (S7) (198) s of hydrophytic ver thes):	Matrix Color (moist) % 10YR 4/1 80 10YR 4/1 80 Concentration, D=Depleti : PL=Pore Lining, M=Mat il Indicators: stisol (A1) stic Epipedon (A2) ack Histic (A3) /drogen Sulfide (A4) ratified Layers (A5) epleted Below Dark Suface ick Dark Surface (A12) andy Mucky Mineral (S1) andy Gleyed Matrix (S4) andy Redox (S5) ripped Matrix (S6) ark Surface (S7) (LRR R, 19B) s of hydrophytic vegetation a Layer (if observed):	Matrix Color (moist) % Color (moist) 10YR 4/1 80 Concentration, D=Depletion, RM=Reduce : PL=Pore Lining, M=Matrix il Indicators: stisol (A1) Polystic Epipedon (A2) (S8 ack Histic (A3) (LR ratified Layers (A5) epleted Below Dark Suface (A11) (LR ratified Layers (A5) andy Mucky Mineral (S1) Andy Gleyed Matrix (S4) andy Redox (S5) pipped Matrix (S6) ark Surface (S7) (LRR R, MLRA 19B) so of hydrophytic vegetation and weltand hydrogen (If observed): hes):	Matrix Color (moist) % Color (Matrix Color (moist) % Color (moist) % Type* 10YR 4/1 80 RM RM Concentration, D=Depletion, RM=Reduced Matrix, CS=Color (Plant) Reduced Matrix, CS=Color (Plant) Re	Matrix Color (moist) % Color (moist) % Type* Loc** 10YR 4/1 80 RM M RM M Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Plant P	Scription: (Describe to the depth needed to document the indicator or confirm the absence of Matrix Redox Features Texture 10YR 4/1 80		

Project/Site: GPL - Ironville	City/County:	Lucas	Sampling Date: April 5, 2018
Applicant/Owner: Generation Pipeline		State: C	OH Sampling Point: Wet I
Investigator(s): S. Peffer/N. Daniels			Township, Range: Oregon
Landform (hillslope, terrace, etc.): Depression			concave, convex, none):
	ong.: 83deg28'24.55	5"W Datur	
Soil Map Unit Name Fulton silty clay loam			NWI Classification: PEM
Are climatic/hydrologic conditions of the site typical for			(If no, explain in remarks)
Are vegetation, soil, or hydrology		y disturbed	
Are vegetation, soil, or hydrology	naturally p	roblematic ²	? circumstances" present? Yes
(If needed, explain any answers in remarks)			
SUMMARY OF FINDINGS			
Hydrophytic vegetation present? Hydric soil present? Y Y	Is the sample	d area with	nin a wetland? Y
Indicators of wetland hydrology present?	If yes, optional	wetland si	te ID:
Remarks: (Explain alternative procedures here or in a	 separate report.)		
	, ,		
This is a man-made area located in an aband	doned netroleum	storage v	ard
This is a mair made area located in air aban	aorica petroleam	otorage y	ara.
HYDROLOGY			
			Secondary Indicators (minimum of two
Primary Indicators (minimum of one is required; check	all that apply)		required)
•	Stained Leaves (B9)		Surface Soil Cracks (B6)
High Water Table (A2) Aquati	c Fauna (B13)		Drainage Patterns (B10)
X Saturation (A3) Marl D	eposits (B15)		Moss Trim Lines (B16)
Water Marks (B1) Hydrog	gen Sulfide Odor (C1)		Dry-Season Water Table (C2)
	ed Rhizospheres on L	iving	Crayfish Burrows (C8)
Drift Deposits (B3) Roots			Saturation Visible on Aerial Imagery
<u> </u>	nce of Reduced Iron (,	(C9)
	t Iron Reduction in Til	led	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Soils (,		Geomorphic Position (D2)
<u> </u>	luck Surface (C7)		Shallow Aquitard (D3)
· , , , , , , , , , , , , , , , , , , ,	(Explain in Remarks)		FAC-Neutral Test (D5)
Surface (B8)			Microtopographic Relief (D4)
Field Observations:			
Surface water present? Yes X No	Depth (inches)):	Indicators of
Water table present? Yes No	X Depth (inches)		— wetland
Saturation present? Yes X No	Depth (inches)		— hydrology
(includes capillary fringe)			present? Y
			· ——
Describe recorded data (stream gauge, monitoring well	l, aerial photos, prev	ious inspec	ctions), if available:
Remarks:			

SOIL							8	Sampling Point: Wet I
D (1) D	· (· (D)						c	f: P ()
		be to th				indicato	r or confirm the absenc	ce of indicators.)
Depth	Matrix	%		lox Feat %		Loc**	Texture	Remarks
(Inches)	Color (moist)		Color (moist)	70 I	Type*			+
0-16+	10YR 4/1	80			RM	M	Loam	
					-			
*Type: C=C	concentration, D=	Depleti	ion, RM=Reduce	d Matrix	k, CS=Co	overed o	r Coated Sand Grains	
	PL=Pore Lining,							
Hvdric Soi	I Indicators:						Indicators for Pro	oblematic Hydric Soils:
Bla Hyo Str: De Thi San San Str: Dan Hyo		.4) 5) k Suface (A12) al (S1) x (S4)	Thin (LR Loa ce (A11) (LR Loa X Dep Rec Dep Rec MLRA	n Dark (R R, M Imy Muck R K, L) Imy Gle bleted M dox Dari bleted D dox Dep	yed Mati Matrix (F3 k Surface Dark Surf Pressions	(S9) PB Pral (F1) rix (F2) B) e (F6) ace (F7) E (F8)	5 cm Mucky P Dark Surface (Polyvalue Beld Thin Dark Surf Iron-Mangane: Piedmont Floc Mesic Spodic Red Parent Ma	Dark Surface (TF12) in Remarks)
Restrictive	Layer (if observe	d):						
Type:	` `	,					Hydric soil prese	ent? Y
Depth (inch	es):				_			
Remarks:								
Area dis	sturbed in the p	oast.						

Project/Site: GPL - Ironville		City/County:	Lucas		Sampling Date: April 5, 2018
Applicant/Owner: Generation Pipeline		_	State:	ОН	Sampling Point: Wet J
Investigator(s): S. Peffer/N. Daniels			_ Section	n, Tov	wnship, Range: Oregon
Landform (hillslope, terrace, etc.): Depres	sion	Lo	cal relief	(con	cave, convex, none):
Slope (%): 2 Lat.: 41deg40'4.	48"N Long.:	83deg28'24.5	5"W Da	tum:	
Soil Map Unit Name Fulton silty clay loam					NWI Classification: PEM
Are climatic/hydrologic conditions of the sit	e typical for this	time of the yea	r? Ye	s	(If no, explain in remarks)
	r hydrology	significant			Are "normal
Are vegetation, soil, o	r hydrology	naturally p	roblemat	tic?	circumstances" present? Yes
(If needed, explain any answers in remarks	s)				
SUMMARY OF FINDINGS					
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					11 10 V
Hydrophytic vegetation present?	<u>Y</u>	Is the sample	ed area w	/ithin	a wetland? Y
Hydric soil present?	Y				
Indicators of wetland hydrology present?	<u>Y</u>	If yes, optiona	l wetland	site	ID:
Remarks: (Explain alternative procedures here or in a separate report.)					
This is a man-made area located in an abandoned petroleum storage yard.					
		•		•	
HYDROLOGY					
					Secondary Indicators (minimum of two
Primary Indicators (minimum of one is requ	ired: check all t	hat annly)			required)
Surface Water (A1)		ned Leaves (B9)			Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fa			-	Drainage Patterns (B10)
X Saturation (A3)	Marl Depos			-	Moss Trim Lines (B16)
Water Marks (B1)		Sulfide Odor (C1))	-	Dry-Season Water Table (C2)
Sediment Deposits (B2)		hizospheres on L		-	Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3)	•		-	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)		of Reduced Iron ((C4)	-	—(C9)
Iron Deposits (B5)		n Reduction in Ti		-	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)			-	Geomorphic Position (D2)
Imagery (B7)		Surface (C7)		-	Shallow Aquitard (D3)
Sparsely Vegetated Concave		lain in Remarks)		-	FAC-Neutral Test (D5)
Surface (B8)	` `	,		-	Microtopographic Relief (D4)
				-	
Field Observations:					
Surface water present? Yes X	No	Depth (inches			Indicators of
Water table present? Yes	No X	Depth (inches):		wetland
Saturation present? Yes X	No	Depth (inches):		hydrology
(includes capillary fringe)		_			present? Y
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
-					
Remarks:					

SOIL							Sa	ampling Point: Wet J
Profile Des Depth	cription: (Descri Matrix	be to th		to docur lox Feat		indicate	or or confirm the absenc	e of indicators.)
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-16+	10YR 4/1	80			RM	М	Loam	
						-		
*Type: C=C	Concentration, D	-Deplet	ion, RM=Reduce	ed Matrix	x, CS=C	overed o	or Coated Sand Grains	<u>l</u>
**Location:	PL=Pore Lining,	M=Ma	trix					
Hydric Soi	I Indicators:						Indicators for Prol	blematic Hydric Soils:
Bla Hyo Stra Dep Thi Sar Sar Sar Stri Dal	,	A4) 5) rk Sufac (A12) ral (S1) ix (S4)) LRR R	Thi (LR Loa X Dep Rec Dep Rec Rec MLRA	n Dark S RR R, MI amy Muc RR K, L) amy Gley bleted M dox Dark bleted D dox Dep	yed Mati fatrix (F3 k Surfac Jark Surf ressions	(S9) PB Pral (F1) rix (F2) B) e (F6) Face (F7) face (F8)	5 cm Mucky Pe Dark Surface (\$ Polyvalue Below Thin Dark Surfa Iron-Manganes Piedmont Flood Mesic Spodic (* Red Parent Ma	w Surface (S8) (LRR K, L) ace (S9) (LRR K, L) be Masses (F12) (LRR K, L, R) dplain Soils (F19) (MLRA 149B) TA6) (MLRA 144A, 145, 149B) dterial (TF2) bark Surface (TF12) in Remarks)
Restrictive Type: Depth (inch	Layer (if observe	ed):			-		Hydric soil prese	nt? <u>Y</u>
Remarks: Are dist	urbed in the p	ast.						

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: GPL - Ironville		City/County:	Lucas		Sampling Date: April 5, 2018	
Applicant/Owner: Generation Pipeline		_	State:	ОН	Sampling Point: Wet K	
Investigator(s): S. Peffer/N. Daniels			Section	n, Tov	wnship, Range: Oregon	
Landform (hillslope, terrace, etc.): Depres	ssion	Lo	cal relief	(con	cave, convex, none):	
Slope (%): 2 Lat.: 41deg40'4	.48"N Long.:	83deg28'24.5	5"W Dat			
Soil Map Unit Name Fulton silty clay loam					NWI Classification: PEM	
Are climatic/hydrologic conditions of the sit	e typical for this	time of the yea	r? Yes	s	(If no, explain in remarks)	
	r hydrology	significant			Are "normal	
Are vegetation, soil, o	r hydrology	naturally p	roblemat	tic?	circumstances" present? Yes	
(If needed, explain any answers in remarks	s)					
OUR ARY OF FINIDINGS						
SUMMARY OF FINDINGS						
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					11 10 V	
Hydrophytic vegetation present?	<u>Y</u>	Is the sample	d area w	/ithin	a wetland? Y	
Hydric soil present?	<u>Y</u>					
Indicators of wetland hydrology present?	<u>Y</u>	If yes, optiona	l wetland	site	ID:	
B 1 (5 1 : 11 : 11 : 11 : 11 : 11 : 11 :						
Remarks: (Explain alternative procedures I	nere or in a sepa	arate report.)				
This is a man-made area located in	n an abandon	ed petroleum	storage	yar	d.	
		·		•		
HYDROLOGY						
					Secondary Indicators (minimum of two	
Primary Indicators (minimum of one is requ	iired: check all t	hat annly)			required)	
Surface Water (A1)		ned Leaves (B9)			Surface Soil Cracks (B6)	
High Water Table (A2)	Aquatic Fa			-	Drainage Patterns (B10)	
X Saturation (A3)	Marl Depos			-	Moss Trim Lines (B16)	
Water Marks (B1)		Sulfide Odor (C1))	-	Dry-Season Water Table (C2)	
Sediment Deposits (B2)		hizospheres on I		-	Crayfish Burrows (C8)	
Drift Deposits (B3)	Roots (C3)					
Algal Mat or Crust (B4)		of Reduced Iron (C4)	-	—(C9)	
Iron Deposits (B5)		n Reduction in Ti		-	Stunted or Stressed Plants (D1)	
Inundation Visible on Aerial	Soils (C6)			-	Geomorphic Position (D2)	
Imagery (B7)		Surface (C7)		-	Shallow Aquitard (D3)	
Sparsely Vegetated Concave		lain in Remarks)		-	FAC-Neutral Test (D5)	
Surface (B8)	` ` `			-	Microtopographic Relief (D4)	
						
Field Observations:						
Surface water present? Yes X	No	Depth (inches			Indicators of	
Water table present? Yes	No X	Depth (inches			wetland	
Saturation present? Yes X	No	Depth (inches):		hydrology	
(includes capillary fringe)					present? Y	
Describe recorded data (stream gauge, mo	onitoring well, a	erial photos, pre	vious ins	pection	ons), if available:	
Domarko						
Remarks:						

SOIL Wet K **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Loc** Color (moist) Type* 10YR 4/1 0-16+ 80 RMΜ Loam *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Coast Prairie Redox (A16) (LRR K, L, R) Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral (F1) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Suface (A11) (LRR K, L) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) X Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (TF2) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? Y Depth (inches): Remarks: Are disturbed in the past.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: GPL - Ironville	City/County:	Lucas	Sampling Date: April 5, 2018		
Applicant/Owner: Generation Pipeline		State:	OH Sampling Point: Wet L		
Investigator(s): S. Peffer/N. Daniels			Township, Range: Oregon		
Landform (hillslope, terrace, etc.): Depression			(concave, convex, none):		
· · · / · · ·	g.: 83deg28'24.55	<u>"W</u> Datı			
Soil Map Unit Name Fulton silty clay loam			NWI Classification: PEM		
Are climatic/hydrologic conditions of the site typical for the			_ ` ' ' '		
Are vegetation, soil, or hydrology	significantl				
Are vegetation , soil , or hydrology	naturally p	robiemati	c? circumstances" present? Yes		
(If needed, explain any answers in remarks)					
OURMANN OF FINDINGS					
SUMMARY OF FINDINGS					
Hydrophytic vegetation present? Hydric soil present? Y Y	Is the sample	d area wi	thin a wetland? Y		
Indicators of wetland hydrology present? Y	If yes, optional	wetland	site ID:		
Remarks: (Explain alternative procedures here or in a se	eparate report.)				
-					
This is a man-made area located in an abando	onea petroleum	storage	yard.		
HYDROLOGY					
			Secondary Indicators (minimum of two		
Primary Indicators (minimum of one is required; check a			required)		
	tained Leaves (B9)		Surface Soil Cracks (B6)		
	Fauna (B13)		Drainage Patterns (B10)		
	posits (B15)		Moss Trim Lines (B16)		
	n Sulfide Odor (C1)		Dry-Season Water Table (C2) Crayfish Burrows (C8)		
Drift Deposits (B3) Roots (C	Rhizospheres on L	iving			
	e of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)		
	ron Reduction in Til		Stunted or Stressed Plants (D1)		
Inundation Visible on Aerial Soils (C6		ieu	Geomorphic Position (D2)		
	ck Surface (C7)		Shallow Aquitard (D3)		
<u> </u>	xplain in Remarks)		FAC-Neutral Test (D5)		
Surface (B8)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Microtopographic Relief (D4)		
Field Observations:					
Surface water present? Yes X No	Depth (inches)):	Indicators of		
Water table present? Yes No X	Depth (inches)):	wetland		
Saturation present? Yes X No	Depth (inches)):	hydrology		
(includes capillary fringe)			present? Y		
Describe recorded data (stream gauge, monitoring well,	aerial photos, prev	ious insp	ections), if available:		
Remarks:					
. Comarto.					

SOIL							Sa	ampling Point: Wet L
Profile Des	crintion: (Descri	he to th	e denth needed	to docu	ıment the	indicate	or or confirm the absence	e of indicators)
Depth	Matrix	be to th		lox Fea		inuicaic		le of indicators.)
						Loc**	Texture	Remarks
			Color (moist)	%	Type*			
0-16+	10YR 4/1	80			RM	M	Loam	
					1			
				ed Matri	x, CS=C	overed c	or Coated Sand Grains	
**Location:	PL=Pore Lining,	M=Mat	rix					
Hydric Soi	l Indicators:						Indicators for Pro	blematic Hydric Soils:
⊔io	tisol (A1)		Dol	varalua l	Below Su	ırfaca	2 cm Muck (Δ1	0) (LRR K, L, MLRA 149B
	tic Epipedon (A2	٠١		•	R, MLR			ledox (A16) (LRR K, L, R)
	ck Histic (A3)	.)			Surface			eat or Peat (S3) (LRR K, L, R)
	drogen Sulfide (A	M)			ILRA 149		Dark Surface (
	atified Layers (A				cky Mine			w Surface (S8) (LRR K, L)
	oleted Below Da			RK, L	-	iai (i i)		ace (S9) (LRR K, L)
	ck Dark Surface				<i>)</i> eyed Mat	riv (F2)		e Masses (F12) (LRR K, L, R)
	ndy Mucky Miner			-	лаtrix (F3			dplain Soils (F19) (MLRA 149B)
	ndy Gleyed Matri				k Surfac	,		TA6) (MLRA 144A, 145, 149B)
	ndy Redox (S5)	X (U+)			Dark Surf			
	pped Matrix (S6	١			pressions			Park Surface (TF12)
	rk Surface (S7) (JOX DCF	7103310110	3 (1 0)	Other (Explain	
149			mero-				Other (Explain	in remarks)
	,	egetatio	n and weltand h	vdrolog	v must h	e preser	nt, unless disturbed or p	roblematic
maioatoro	o, a. op., j. a. o	gotatio	mana wokana m	y an onog	y maor b	о рі сосі.	n, arnoco dictarboa or p	iobioinado
	Layer (if observe	ed):						
Type:					_		Hydric soil prese	nt? <u>Y</u>
Depth (inch	ies):				_			
Remarks:								
	urbed in the p	ast						
Aic dist	arbea in the p	ast.						

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: GPL - Ironville		City/County:	Lucas		Sampling Date: April 5, 2018
Applicant/Owner: Generation Pipeline		_	State:	ОН	Sampling Point: Wet M
Investigator(s): S. Peffer/N. Daniels			Section	n, Tov	vnship, Range: Oregon
Landform (hillslope, terrace, etc.): Depres	ssion	Lo	cal relief	(con	cave, convex, none):
Slope (%): 2 Lat.: 41deg40'4	.48"N Long.:	83deg28'24.5	5"W Dat		
Soil Map Unit Name Fulton silty clay loam					NWI Classification: PEM
Are climatic/hydrologic conditions of the sit	e typical for this	time of the yea	r? Yes	s	(If no, explain in remarks)
	r hydrology	significant			Are "normal
Are vegetation, soil, o	r hydrology	naturally p	roblemat	tic?	circumstances" present? Yes
(If needed, explain any answers in remarks	s)				
OUR ARY OF FINIDINGS					
SUMMARY OF FINDINGS					
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					11 10 V
Hydrophytic vegetation present?	<u>Y</u>	Is the sample	d area w	/ithin	a wetland? Y
Hydric soil present?	<u>Y</u>				
Indicators of wetland hydrology present?	<u>Y</u>	If yes, optiona	l wetland	site	D:
B 1 (5 1 : 11 : 11 : 11 : 11 : 11 : 11 :					
Remarks: (Explain alternative procedures I	nere or in a sepa	arate report.)			
This is a man-made area located in	n an abandon	ed petroleum	storage	yar	d.
		·		•	
HYDROLOGY					
					Secondary Indicators (minimum of two
Primary Indicators (minimum of one is requ	iired: check all t	hat annly)			required)
Surface Water (A1)		ned Leaves (B9)			Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fa			-	Drainage Patterns (B10)
X Saturation (A3)	Marl Depos			-	Moss Trim Lines (B16)
Water Marks (B1)		Sulfide Odor (C1))	-	Dry-Season Water Table (C2)
Sediment Deposits (B2)		hizospheres on I		-	Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3)	•	3	-	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)		of Reduced Iron (C4)	-	—(C9)
Iron Deposits (B5)		n Reduction in Ti		-	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)			_	Geomorphic Position (D2)
Imagery (B7)		Surface (C7)		-	Shallow Aquitard (D3)
Sparsely Vegetated Concave		lain in Remarks)		-	FAC-Neutral Test (D5)
Surface (B8)	` ` `			-	Microtopographic Relief (D4)
				-	
Field Observations:					
Surface water present? Yes X	No	Depth (inches			Indicators of
Water table present? Yes	No X	Depth (inches			wetland
Saturation present? Yes X	No	Depth (inches):		hydrology
(includes capillary fringe)					present? Y
Describe recorded data (stream gauge, mo	onitoring well, a	erial photos, pre	vious ins	pection	ons), if available:
Damada					
Remarks:					

SOIL							Sa	ampling Point: Wet M
Profile Desc	cription: (Descri	be to th	ne depth needed	to docu	ment the	e indicato	or or confirm the absence	ee of indicators.)
Depth	Matrix	50 10 111		dox Feat		, intaloate	T OF COMMITTE THE ABOUTTO	T
•		%				100**	Texture	Remarks
(Inches)	Color (moist)		Color (moist)	<u>%</u>	Type*	Loc**		
0-16+	10YR 4/1	80			RM	M	Loam	
							I	
			1					
			+		+	†		
							 	
			+					
			+		_		 	
		<u> </u>		<u> </u>	<u> </u>		<u> </u>	
							<u> </u>	
			1		1			
*Type: C=C	oncentration D:	-Denlet	ion RM=Reduce	d Matri	<u> </u>	overed c	or Coated Sand Grains	
	PL=Pore Lining,			o Main	x, C3-C	overeu c	1 Coaled Sand Grains	
		ivi–iviai	LIIX					
Hydric Soil	I Indicators:						Indicators for Prol	blematic Hydric Soils:
Hist	tisol (A1)		Pol	yvalue [Below Su	urface	2 cm Muck (A1	0) (LRR K, L, MLRA 149B
— His	tic Epipedon (A2	()	(S8	(LRR	R, MLR	A 149B)	Coast Prairie R	Redox (A16) (LRR K, L, R)
	ck Histic (A3)	,			Surface (eat or Peat (S3) (LRR K, L, R)
	, ,	. 4)						
	drogen Sulfide (A	,			LRA 149		Dark Surface (S	
	atified Layers (A			amy Mud	cky Mine	ral (F1)		w Surface (S8) (LRR K, L)
Dep	oleted Below Dar	k Sufac	ce (A11) (LR	RRK, L))		Thin Dark Surfa	ace (S9) (LRR K, L)
— Thic	ck Dark Surface	(A12)	Loa	amy Gle	yed Mati	rix (F2)	Iron-Manganes	e Masses (F12) (LRR K, L, R)
	ndy Mucky Miner	. ,		-	⁄latrix (F3			dplain Soils (F19) (MLRA 149B)
	ndy Gleyed Matri	. ,		•	k Surfac	,		TA6) (MLRA 144A, 145, 149B)
	ndy Redox (S5)	х (Оч)				face (F7)		
				•		. ,		• •
	pped Matrix (S6)			зох рер	pressions	3 (F8)		Oark Surface (TF12)
	k Surface (S7) (LRR R,	, MLRA				Other (Explain i	in Remarks)
149	,							
*Indicators	of hydrophytic ve	egetatio	on and weltand h	ydrology	y must b	e presen	it, unless disturbed or pr	roblematic
		•			•	•	·	
Restrictive I	Layer (if observe	۳۹)٠						
	Layer (II observe	;u).						12 V
Type:					_		Hydric soil presei	nt? <u>Y</u>
Depth (inch	es):				_			
Remarks:								
Are dist	urbed in the pa	ast.						

APPENDIX D

OHIO RAPID ASSESSMENT METHOD FORMS

Wetland A - Ironville Pipeline

Background Information

S. Peffer / N. Daniels	
Date: April 5, 2018	
Affiliation: Utility Technologies International, Inc.	
4700 Homer Ohio Lane, Groveport, OH	
Phone Number: 614-482-8080	
e-mail address: speffer@uti-corp.com	
Name of Wetland: Wetland A	
Vegetation Communit(les): Emergent	
HGM Class(es): Depressional	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
Sane wethers maps.	
¥	
Lettling as LITM Coordingto	
Lat/Long or UTM Coordinate 41deg40'4.48"N / 83deg28'24.55"W USGS Quad Name Organ Ohio Michigan	
County County	
Lucas	
Township Oregon Section and Subsection	
Hydrologic Unit Code Lower Maumee - 04100010	
Site Visit April 5, 2018	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey	
Delineation report/map	

Name of Wetland: Wetland A	
Wetland Size (acres, hectares):	
Sketch: Include north arrow, relationship with other surface waters, vege	etation zones, etc.
A wet A	A Cosour A A
	N
Comments, Narrative Discussion, Justification of Category Changes:	
Wathers associated of Aa	Adelda
Final score: 37	Category: Mod. 2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	1	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	/	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.		
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	/	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		V
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		V

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	7
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peal, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

			7
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	>
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	(NO)
9b	elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Go to Question 9b YES Wetland should be evaluated for possible Category 3 status	Go to Question 10 NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 10 YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
7. 0	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan:
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		_
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland A - Ironville	Pipeline	Rater(s): S. Peffer/N. Daniels		Date: April 5, 2018
4 4 Metri	ic 1. Wetland A	rea (size).		
	ne size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)) 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts) 0.12ha) (1 pt)		
5 9 Metri	ic 2. Upland bu	ffers and surround	ing land use.	
2b. Inter	WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers sity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Res	Select only one and assign score. Em (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around a 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetlar. Select one or double check and a rolder forest, prairie, savannah, wide, shrub land, young second growth sidential, fenced pasture, park, conspen pasture, row cropping, mining, compared to <25m (164ft) and the control of the control	erimeter (7) wetland perimeter (4) of wetland perimeter (1) of perimeter (0) verage. dlife area, etc. (7) forest. (5) ervation tillage, new fall	
/3 22 Metri	ic 3. Hydrology	'·		
3c. Maxi	rces of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la Imum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) iffications to natural hydrolog	ce water (3) ke or stream) (5) 3d. nly one and assign score.	Part of wetland/u Part of riparian o Duration inundation/sat Semi- to perman Regularly inunda Seasonally inunda Seasonally satur	ain (1) //ake and other human use (1) //ake and other human use (1) //pipland (e.g. forest), complex (1) // rupland comidor (1) // turation. Score one or dbl chec // lently inundated/saturated (4) // ted/saturated (3)
<u></u>	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)		point source (nor filling/grading road bed/RR trace dredging other	
14 36 Metr	ic 4. Habitat Al	teration and Develo	pment.	
×	strate disturbance, Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) itat development, Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	e or double check and average,		
4c. Habi	itat alteration. Score one or one or one or one or none apparent (9)	double check and average. Check all disturbances observed		
subtotal this page	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal

Site: W	etland A -	Ironville Pipeline	Rater	(s): S. Peffer/	N. Daniels	Date: April 5, 2018
ŝi	36	age .				
D	2/6	Metric 5. Special	Wetlan	ids.		
max 10 pts	subtotal	Check all that apply and score as Bog (10) Fen (10) Old growth forest (10) Mature forested wetlan Lake Erie coastal/tribut Lake Erie coastal/tribut Lake Plain Sand Prairie Relict Wet Prairies (10) Known occurrence stat Significant migratory so Category 1 Wetland. S	d (5) ary wetland-r ary wetland-r es (Oak Oper) e/federal thre ongbird/water See Question	estricted hydro nings) (10) eatened or enda fowl habitat or 1 Qualitative R	ogy (5) ingered species (10) usage (10) ating (-10)	
1	37	Metric 6. Plant co	ommun	ities, int	erspersion, microt	opography.
max 20 pts.	subtotal	J 6a. Wetland Vegetation Commun	nities	Vegetation	Community Cover Scale	
max 20 pts.	востощи	Score all present using 0 to 3 sca		0	Absent or comprises <0.1ha (0.	2471 acres) continuous area
		Aquatic bed	NO.	1	Present and either comprises si	
		Emergent		·	vegetation and is of moderate	
		Shrub			significant part but is of low qu	
		Forest		2	Present and either comprises si	
				_	vegetation and is of moderate	
		Mudflats			part and is of high quality	quanty or compliace a small
		Open water				at part or more of wetland's
		Other		3	Present and comprises significa	*
		6b. horizontal (plan view) Intersp	ersion.		vegetation and is of high quali	ty
		Select only one.				
		High (5)		-	escription of Vegetation Quality	
		Moderately high(4)		low	Low spp diversity and/or predor	
		Moderate (3)			disturbance tolerant native sp	
		Moderately low (2)		mod	Native spp are dominant compo	_
		Low (1)			although nonnative and/or dis	• •
		None (0)			can also be present, and spec	•
		6c. Coverage of invasive plants.			moderately high, but generally	
		to Table 1 ORAM long form for lis	st. Add		threatened or endangered sp	
		or deduct points for coverage		high	A predominance of native speci	es, with nonnative spp
		Extensive >75% cover	(-5)		and/or disturbance tolerant na	tive spp absent or virtually
		Moderate 25-75% cove	er (-3)		absent, and high spp diversity	and often, but not always,
		Sparse 5-25% cover (-	1)		the presence of rare, threaten	ed, or endangered spp
		Nearly absent <5% cov	/er (0)			
		Absent (1)		Mudflat and	Open Water Class Quality	
		6d. Microtopography.		0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 sca	ale	1	Low 0.1 to <1ha (0.247 to 2.47	acres)
		Vegetated hummucks/		2	Moderate 1 to <4ha (2.47 to 9.8	38 acres)
		Coarse woody debris >		3	High 4ha (9.88 acres) or more	
		Standing dead >25cm				
		Amphibian breeding po		Microtopoa	raphy Cover Scale	
		p	- · -	0	Absent	
				1	Present very small amounts or	f more common
				•	of marginal quality	
				2	Present in moderate amounts, t	nut not of highest
				2	quality or in small amounts of	
				3		
	1			3	Present in moderate or greater	amounts
71	/	Nonthal 1			and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	4	
	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology	13	
	Metric 4. Habitat	14	
	Metric 5. Special Wetland Communities	8	
	Metric 6. Plant communities, interspersion, microtopography	ĺ	
	TOTAL SCORE	37	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	m	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category						
Choose one	Category 1	11/	Category 2 //	Category 3		
		W				

End of Ohio Rapid Assessment Method for Wetlands.

Wetland B - Ironville Pipeline

Background Information

Name: S. Peffer / N. Daniels
Date: April 5, 2018
Affiliation: Utility Technologies International, Inc.
Address: 4700 Homer Ohio Lane, Groveport, OH
Phone Number: 614-482-8080
e-mail address: speffer@uti-corp.com
Name of Wetland # B
Vegetation Communit(ies): Emergent
HGM Class(es): Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
See wetland ways
wet and ways
Lat/Long or UTM Coordinate
41deg40'4.48"N / 83deg28'24.55"W
County Lucas
Township Oregon
Section and Subsection
Hydrologic Unit Code Lower Maumee - 04100010
Site Visit April 5, 2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey
Delineation report/map

tland Size (acres, hectares):	1111 4	-	
etch: Include north arrow, relationship wi	th other surface waters was	tation zonce etc	
itcn: include north arrow, relationship wi	in other surface waters, vege	nauvii zviles, etc.	
	. ()	11 Ments	
	1) charge	1/10/1-	
	May good		
	e Watlers		
mments, Narrative Discussion, Justificat	on of Category Changes:		

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	V	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	1	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		/
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		/

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	1
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed	YES	NO
	threatened or endangered plant or animal species?	Wetland is a Category 3 wetland,	Go to Question 3
		Go to Question 3	
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	0
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Welland is a Category 3 wetland	NO Go to Question 5
		Go to Question 5	
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	(ON)
	significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	NO
1	is saturated during most of the year, primarily by a discharge of frowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Welland is a Calegory 3 welland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	(NO)
Ja	forest characterized by, but not limited to, the following characteristics; overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			B
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	12
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
9c	A laber Polymer to the state of	Go to Question 10	110
90	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES	NO
		Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	2
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	NO)
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland.	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	Go to Question 11	1
	type of wetland and its quality.	-	
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	YES Wetland should be evaluated for possible Category 3 status	Complete Quantitative Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristic plant species.

Invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var capillacea	Carex lasiocarpa	Calamogrostis stricte
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherode
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaum
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellit
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwell
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrews
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicat
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflor
	Parnassia glauca	Schechzeria palustris		Lythrum alatu
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianus
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceur
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinal
	Salix myricoides	Woodwardia virginica		Solidago riddell
	Salix serissima	Xyris difformis		•
	Solidago ohioensis	2		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland B - Ironville Pipeline	Rater(s): S. Peffer/	N. Daniels	Date: April 5, 2018
		1 1	
O O Metric 1.	Wetland Area (size).		
>50 aci 25 to < 10 to < 3 to <10 0.3 to < 0.1 to <	ass and assign score. res (>20.2ha) (6 pts) 50 acres (10.1 to <20.2ha) (5 pts) 25 acres (4 to <10.1ha) (4 pts) 0 acres (1.2 to <4ha) (3 pts) 13 acres (0.12 to <1.2ha) (2pts) 10.3 acres (0.04 to <0.12ha) (1 pt) 11 pt (0.04ha) (0 pts)		
2 2 Metric 2.	Upland buffers and suri	rounding land u	se.
WIDE. MEDIU NARRO VERY I 2b. Intensity of si VERY I LOW. MODEI	erage buffer width. Select only one and assig Buffers average 50m (164ft) or more around M. Buffers average 25m to <50m (82 to <1640W. Buffers average 10m to <25m (32ft to <narrow. (="" (<32ft)="" 2nd="" <10m="" arounding="" average="" buffers="" claw.="" double="" field="" forest,="" growth="" land="" old="" older="" one="" or="" prairie,="" save="" select="" use.="">10 years), shrub land, young secon RATELY HIGH. Residential, fenced pasture, Urban, industrial, open pasture, row cropping</narrow.>	wetland perimeter (7) 4ft) around wetland perimeter 82ft) around wetland perimeter und wetland perimeter (0) heck and average. annah, wildlife area, etc. (7) nd growth forest. (5) park, conservation tillage, ne	r (4) er (1)
Metric 3.	Hydrology.	=	
High ph Other g Precipit Season Perenn 3c. Maximum wa >0.7 (2 0.4 to 0	later. Score all that apply. If groundwater (5) If groundwater (3) If all intermittent surface water (3) If all surface water (1) If all surface water (2) If all surface water (3) If all surface w	Part of wetl Part of ripal 3d. Duration inundation Semi- to pe Regularly ir Seasonally Seasonally	
Recove Recove Recent	or no recovery (1) tile dike weir stormwater input	point source filling/gradir Y road bed/R dredging other	sortated w/ R
10	Habitat Alteration and I		reductionance work
None o Recove Recove Recove Recent 4b. Habitat devel Excelle Very go Good (i Modera Fair (3) Poor to Poor (1	ring (2) or no recovery (1) opment, Select only one and assign score, nt (7) ood (6) 5) itely good (4) fair (2)		
	tion. Score one or double check and average r none apparent (9) Check all disturbances		
Recove		shrub/saplir herbaceous sedimentati dredging	Jaquatic bed removal

Site: Wetland B - Ironville Pipeline		Rater(s)	Rater(s): S. Peffer/N. Daniels		Date: April 5, 2018
12 subtotal first pa	ige				
0 12	Metric 5. Special \	Wetland	s.		
max 10 pts subtotal	Check all that apply and score as i Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state Significant migratory sor Category 1 Wetland. Se	(5) ry wetland-unre ry wetland-rest s (Oak Opening //federal threate ngbird/water fov se Question 1 C	ricted hydrolog s) (10) ned or endang vi habitat or us Qualitative Rati	gy (5) gered species (10) sage (10) ing (-10)	
-3 9	Metric 6. Plant co	mmuniti	es, inte	rspersion, microt	opography.
max 20 pts subtotal	6a. Wetland Vegetation Communi	ties.	Vegetation Co	ommunity Cover Scale	
	Score all present using 0 to 3 scale	-		Absent or comprises <0.1ha (0.2	2471 acres) contiguous area
	Aquatic bed Emergent Shrub	•		Present and either comprises so vegetation and is of moderate significant part but is of low qu	nall part of wetland's quality, or comprises a
	Forest	-	2	Present and either comprises si	
			- I		-
	Mudflats			vegetation and is of moderate	quality of comprises a small
	Open water	-		part and is of high quality	-44
	Other	1	3	Present and comprises significa	-
	6b. horizontal (plan view) Interspe	rsion,		vegetation and is of high quali	ıy
	Select only one				
	High (5)			scription of Vegetation Quality	
	Moderately high(4)		low	Low spp diversity and/or predon	
	Moderate (3)			disturbance tolerant native spe	
	Moderately low (2)		mod	Native spp are dominant compo	-
	Low (1)			although nonnative and/or dist	- ·
	None (0)			can also be present, and spec	=
	6c. Coverage of invasive plants. I			moderately high, but generally	-
	to Table 1 ORAM long form for list	. Add		threatened or endangered spp	
	or deduct points for coverage		high	A predominance of native specie	
	Extensive >75% cover (-	•		and/or disturbance tolerant na	
	Moderate 25-75% cover	· (-3)		absent, and high spp diversity	
	Sparse 5-25% cover (-1))		the presence of rare, threaten	ed, or endangered spp
	Nearly absent <5% cover	er (0)			
	Absent (1)		Mudflat and C	Open Water Class Quality	
	6d. Microtopography.		0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale		1	Low 0.1 to <1ha (0.247 to 2.47 a	acres)
	Vegetated hummucks/tu	issucks	2	Moderate 1 to <4ha (2.47 to 9.8	88 acres)
	Coarse woody debris >1	5cm (6in)	3	High 4ha (9.88 acres) or more	
	Standing dead >25cm (1	•			
	Amphibian breeding poo	ols !		phy Cover Scale	
			0	Absent	
			1	Present very small amounts or it of marginal quality	
			2	Present in moderate amounts, be quality or in small amounts of	
		•	3	Present in moderate or greater	amounts
a				and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	6	
	Metric 4. Habitat	4	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-3	
	TOTAL SCORE	9	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	3	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NÓ)	Evaluate the wettand using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.



End of Ohio Rapid Assessment Method for Wetlands.

Wetland C - Ironville Pipeline

Background Information

Name: O Deffer (N. Deviele
S. Peffer / N. Daniels
April 5, 2018
Utility Technologies International, Inc.
4700 Homer Ohio Lane, Groveport, OH
Phone Number: 614-482-8080
speffer@uti-corp.com
Name of Wetland C
Vegetation Communit(ies): Emergent
HGM Class(es): Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
See Wettand Map
Lat/Long or UTM Coordinate 41deg40'4.48"N / 83deg28'24.55"W
USGS Quad Name Oregon, Ohio-Michigan
Crogon, Crito telloringari
County Lucas
County
County Lucas Township Oregon Section and Subsection
County Lucas Township Oregon Section and Subsection
County Lucas Township Oregon
County Lucas Township Oregon Section and Subsection Hydrologic Unit Code Lower Maumee - 04100010
County Lucas Township Oregon Section and Subsection Hydrologic Unit Code Lower Maumee - 04100010 Site Visit April 5, 2018
County Lucas Township Oregon Section and Subsection Hydrologic Unit Code Lower Maumee - 04100010 Site Visit April 5, 2018 National Wetland Inventory Map

ame of Wetland:	etiand C		
Vetland Size (acres, h			
ketch: Include north	arrow, relationship with other surface waters, veg	etation zones, etc.	
	See wetters	Λ Λ	
		1. ment	
	- Jave	V .	
	1 sellar	•	
	Of U		
	· ·		
omments, Narrative	Discussion, Justification of Category Changes:		
····		<u> </u>	
			· <u>-</u>
inal score :	22	Category:	1

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	1	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	_	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	0
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has	YES	NO
	been designated by the U.S. Fish and Wildlife Service as "critical"	Wetland should be	Go to Question 2
	habitat for any threatened or endangered plant or animal species?	evaluated for possible	
	Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has	Category 3 status	
	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000)	Go to Question 2	λ
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed	YES	NO
	threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	13
3	Documented High Quality Wetland. Is the wetland on record in	YES	(NO)
	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	12
4	Significant Breeding or Concentration Area. Does the wetland	YES	/NO)
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
		Go to Question 5	B
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of	YES	(NO)
	vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or	Wetland is a Category 1 wetland	Go to Question 6
	2) an acidic pond created or excavated on mined lands that has little or no vegetation?	Go to Question 6	1
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,	YES	NO
	particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the	Wetland is a Category 3 wetland	Go to Question 7
	cover of invasive species (see Table 1) is <25%?	Go to Question 7	1
7	Fens, is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free	YES	(NO)
	flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0)	Wetland is a Category	Go to Question 8a
	and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	3 wetland	20
		Go to Question 8a	110
Ba	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics:	YES	NO)
	overstory canopy trees of great age (exceeding at least 50% of a	Wetland is a Category 3 wetland.	Go to Question 8b
	projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100	5 wettand.	
	years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	Go to Question 8b	

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	YES	(NO)
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	MO)
	an elevation less than 575 feet on the USGS map, adjacent to this	100	
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO =
	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or	Wetland should be	Go to Question 9c
	landward dikes or other hydrological controls?	evaluated for possible	Go to Question 9¢
	landward dikes of other hydrological controls?	Category 3 status	
		outogory o states	
		Go to Question 10	
9¢	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland	0-4-0	
	border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These	Go to Question 9d	Ga to Question 10
	include sandbar deposition wetlands, estuarine wetlands, river mouth	1	
	wetlands, or those dominated by submersed aquatic vegetation.		
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant	.	
	native species can also be present?	Wetland is a Category	Go to Question 9e
		3 wetland	
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?		
		Wetland should be evaluated for possible	Go to Question 10
		Category 3 status	
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES (NO)
	characterized by the following description: the wetland has a sandy	Wetland is a Category	Go to Question 11
	substrate with interspersed organic matter, a water table often within	3 wetland.	CO TO QUESTION II
	several inches of the surface, and often with a dominance of the		
	gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	present). The Ohio Department of Natural Resources Division of		
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		7
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
* "	dominated by some or all of the species in Table 1. Extensive prairies	123	
	were formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion	evaluated for possible	Quantitative
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	Complete Ougetitetive	
	workgonisty, van vveit etc.j.	Complete Quantitative Rating	
	· · · · · · · · · · · · · · · · · · ·	1	

Table 1. Characteristic plant species.

Invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicato
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflore
,, ,	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianun
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinate
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		-
	Solidago ohioensis	J		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland C - Ire	onville Pipeline	Rater(s): S. Peffer/N. Daniels		Date: April 5, 2018
2 2 N	Metric 1. Wetland	Area (size).		
max 6 pts subtotal Se	elect one size class and assign set	ts) <20,2ha) (5 pts) J.1ha) (4 pts) ha) (3 pts) :1.2ha) (2pts) o <0,12ha) (1 pt)		
4 6 N	letric 2. Upland b	uffers and surroundi	ng land use.	
2b	MIDE. Buffers average: MEDIUM. Buffers average: NARROW. Buffers average: VERY NARROW. Buffers average: VERY LOW. Buffers average: VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. Field) HIGH. Urban, industrial,	. Select only one and assign score, De 50m (164ft) or more around wetland per ge 25m to <50m (82 to <164ft) around war age 10m to <25m (32ft to <82ft) around s average <10m (<32ft) around wetland se. Select one or double check and award or older forest, prairie, savannah, wildly rs), shrub land, young second growth for desidential, fenced pasture, park, consections open pasture, row cropping, mining, consections.	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. ife area, etc. (7) prest. (5) ervation tillage, new fallo	ow field. (3)
12 18 N	Metric 3. Hydrolog	ly.		
3c	A. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surprise Perennial surface water (2) Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (1) Modifications to natural hydrological processing surprise processing	face water (3) lake or stream) (5) 3d. I only one and assign score.	Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inundation/seasonally inundation	lin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check, ently inundated/saturated (4) ted/saturated (3)
	None or none apparent (Recovered (7) Recovering (3) Recent or no recovery (1	ditch	point source (non filling/grading road bed/RR trac dredging other_	
8 26 N	Metric 4. Habitat A	Alteration and Develo	pment.	J
	None or none apparent (Recovered (3) Recovering (2) Recent or no recovery (1 Habitat development, Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)) —		
4c	Poor to fair (2) Poor (1) Habitat alteration. Score one of	r d <u>ouble check and average.</u>		
sublotal this page	None or none apparent (Recovered (6) Recovering (3) Recent or no recovery (1	9) Check all disturbances observed mowing grazing	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	itic bed removal

Site: Wetland C -	Ironville Pipeline	Rater(s)	S. Peffer/N	. Danjels	Date: April 5, 2018
26 subtotal first pa	ī	***			
0 16	Metric 5. Special	Wetlands			
max 10 pts. subtotal	Check all that apply and score as Bog (10) Fen (10) Old growth forest (10) Mature forested wetlan Lake Erie coastal/tribut Lake Erie coastal/tribut Lake Plain Sand Prairie Relict Wet Prairies (10) Known occurrence stat Significant migratory so	d (5) ary welland-unrea ary welland-restri as (Oak Openings e/federal threater angbird/water fow	cted hydrolog () (10) ned or endand I habitat or us	gy (5) gered species (10) sage (10)	
-3 13	Category 1 Wetland, S Metric 6. Plant co				opography.
max 20 pts. subtotal] 	141		it. Cover Seele	
max 20 pts. subtotal	6a. Wetland Vegetation Communication Score all present using 0 to 3 sca			ommunity Cover Scale Absent or comprises <0.1ha (0.2)	2471 acres) continuous area
	Aquatic bed Emergent	_	1	Present and either comprises sn vegetation and is of moderate	nall part of wetland's quality, or comprises a
	Shrub	_		significant part but is of low qu	
	Forest Mudflats Open water		2	Present and either comprises significant vegetation and is of moderate part and is of high quality	
	Other		3	Present and comprises significan	nt part, or more, of wetland's
	6b. horizontal (plan view) Intersp	ersion.		vegetation and is of high qualit	у
1)	Select only one.		arrativo Dos	cription of Vegetation Quality	
+	High (5) Moderately high(4)	<u></u>	low	Low spp diversity and/or predom	inance of nonnative or
	Moderate (3)			disturbance tolerant native spe	
	Moderately low (2)	_	mod	Native spp are dominant compo	
	Low (1)			although nonnative and/or dist	
	None (0)			can also be present, and speci	ies diversity moderate to
	6c. Coverage of invasive plants.	Refer		moderately high, but generally	
	to Table 1 ORAM long form for lis	st. Add		threatened or endangered spp	
	or deduct points for coverage		high	A predominance of native specie	
T	Extensive >75% cover			and/or disturbance tolerant nat	
- 0	Moderate 25-75% cove	* *		absent, and high spp diversity	
	Sparse 5-25% cover (- Nearly absent <5% cov			the presence of rare, threatene	u, or endangered spp
	Absent (1)	* *	ludfiat and (Open Water Class Quality	
	6d. Microtopography.	-	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 sca	le –	1	Low 0.1 to <1ha (0.247 to 2.47 a	acres)
	Vegetated hummucks/		2	Moderate 1 to <4ha (2.47 to 9.8	<u> </u>
	Coarse woody debris >		3	High 4ha (9.88 acres) or more	
	Standing dead >25cm O Amphibian breeding po	(10in) dbh	licrotopogra	phy Cover Scale	
			0	Absent	
			1	Present very small amounts or if of marginal quality	
			2	Present in moderate amounts, b quality or in small amounts of I	
		-	3	Present in moderate or greater a	<u> </u>
72		_		and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (10	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	4	And a street date falls and
	Metric 3. Hydrology	12	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-3	
	TOTAL SCORE	23	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	12	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g., a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Fin	al Category	
Choose one	/Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Wetland D - Ironville Pipeline

Background Information

S. Peffer / N. Daniels				
April 5, 2018				
Affiliation: Utility Technologies International, Inc.				
4700 Homer Ohio Lane, Groveport, OH				
Phone Number: 614-482-8080				
e-mall address: speffer@uti-corp.com				
Name of Wetland D				
Vegetation Communit(les): Emergent				
HGM Class(es): Depressional				
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.				
See wettard work.				
Lat/Long or UTM Coordinate 41deg40'4.48"N / 83deg28'24.55"W				
Oregon, Ohio-Michigan				
Lucas				
Township Oregon Section and Subsection				
Lower Maumee - 04100010				
National Wetland Inventory Map				
Ohio Wetland Inventory Map				
Soil Survey				
Delineation report/map				

Name of Wetland: Wetland D
Wetland Size (acres, hectares):
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.
+ AK
Country Scoub/shock
Country Country /
Colors of
Country Yard Waste
Vale
Years Mr. Will
Mr Wetland D
Moured Laur
//
Comments, Narrative Discussion, Justification of Category Changes:
NA
Final score : Category: /

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	/	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	/	25
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	_	/
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		V

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	0
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17,95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Welland is a Category 3 welland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics; overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed togs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			1
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally	YES Wetland should be	NO Go to Question 9a
	diameters greater than 45cm (17.7in) dbh?	evaluated for possible Category 3 status.	
-00	Lake Erie coastal and tributary wetlands. Is the wetland located at	Go to Question 9a	(NO)
9a	an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO
33	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland	YES	NO
	border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant		
	native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		3 Welland	
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES	NO
		Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be		
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland.	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Go to Question 11	
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		0
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO
	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion	evaluated for possible	Complete Quantitative
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,		-
	Montgomery, Van Wert etc.).	Complete Quantitative	
	l	Rating	

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Invasivelexotic spp Lythrum salicaria Myriophyllum spicatum Najas munor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp.	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	wat prairie species Calamagrostis canadensis Calamagrostis stricta Carex atherodes Carex buxbaumin Carex sartwellii Gentiana andrewsii Helianihus grosseserratus Liatris spicata
Typha xglauca	Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhammis alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium carymbosum Vaccinium oxycoccos Woodwardia virginica Nyris difformis		Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinala Solidago riddellii

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland D - Ironville Pipeline	Rater(s): S. Peffer/N. Daniels	Date: April 5, 2018
-Ca17		
Metric 1. Wetla	d Area (size).	
max 6 pts. subtotal Select one size class and as	ın score,	
>50 acres (>20.2h	(6 pts) 1 to <20.2ha) (5 pts)	
10 to <25 acres (4		
3 to <10 acres (1.3 0.3 to <3 acres (0.4 0.5 to <3 acres (0.5 0.5 to <5 0.5		
0.1 to <0.3 acres (04 to <0.12ha) (1 pt)	
<0.1 acres (0.04h)	• •	
3 3 Metric 2. Uplar	l buffers and surrounding land ι	ise.
	ridth. Select only one and assign score. Do not double che	ck.
	ige 50m (164ft) or more around wetland perimeter (7) /erage 25m to <50m (82 to <164ft) around wetland perimete	r (4)
NARROW. Buffer	average 10m to <25m (32ft to <82ft) around wetland perime	
	uffers average <10m (<32ft) around wetland perimeter (0) nd use. Select one or double check and average.	
VERY LOW. 2nd	owth or older forest, prairie, savannah, wildlife area, etc. (7)	
	years), shrub land, young second growth forest. (5) H. Residential, fenced pasture, park, conservation tillage, no	ew fallow field (3)
	trial, open pasture, row cropping, mining, construction. (1)	10.000
Metric 3. Hydro	ogy.	
max 30 pts. subtotal 3a. Sources of Water. Scot	all that apply. 3b. Connectivity. So	ore all that apply.
High pH groundwa		oodplain (1)
Other groundwate		tream/lake and other human use (1) land/upland (e.g. forest), complex (1)
		rian or upland corridor (1)
		on/saturation, Score one or dbl check, ermanently inundated/saturated (4)
>0.7 (27.6in) (3)		nundated/saturated (3)
0.4 to 0.7m (15.7 to <0.4m (<15.7in) (*)		r inundated (2) r saturated in upper 30cm (12in) (1)
	drologic regime. Score one or double check and average.	
None or none app Recovered (7)		e (nonstormwater)
Recovering (3)	tile filling/grad	ing
Recent or no reco	ry (1) dike road bed/f	RR track
	stormwater input Sother	lowed lawn
Metric 4. Habit	t Alteration and Development.	 ,
117		
max 20 pts. subtotal 4a. Substrate disturbance.	ore one or double check and average.	
Recovered (3)	sii (*)	
Recovering (2) Recent or no reco	2/4)	
	ectionly one and assign score	
Excellent (7)		
Very good (6) Good (5)		
Moderately good		
Fair (3) Poor to fair (2)		
Poor (1)	one or double check and average.	
Ac. Habitat alteration. Scor		
Recovered (6)	mowing shrub/sapl	ing removal
Recovering (3) Recent or no reco		s/aquatic bed removal
The cent of the feed	selective cutting dredging	
[] 7]	woody debris removal farming toxic pollutants	richment
subtotal this page	Toxic politicants Truthent el	(NATIONAL CONTRACTOR OF THE C
last revised 1 February 2001 jjm	The second secon	

Site: W	etland D -	Ironville Pipeline	Rater(s): S. P	Peffer/N. D	Daniels	Date: April 5, 2018
Su	/Z	ge				
0	17	Metric 5. Special	Wetlands.			
max 10 pis.	subtotal	Lake Erie coastal/tribu Lake Plain Sand Prairi Relict Wet Prairies (10 Known occurrence sta	nd (5) tary wetland-unrestricte tary wetland-restricted t es (Oak Openings) (10)) te/federal threatened or	hydrology) r endange	(5) red species (10)	
			ongbird/water fowl habit See Question 1 Qualitat			
-4	B	Metric 6. Plant co		`		otopography.
max 20 pts.	subtotal	J 6a. Wetland Vegetation Commu	nities. Vegeta	ation Con	nmunity Cover Scale	
		Score all present using 0 to 3 sci				0.2471 acres) contiguous area
		Aquatic bed	1		resent and either comprises	
		Emergent			vegetation and is of modera	te quality, or comprises a
		Shrub			significant part but is of low	
		Forest	- 2	2 Pr	resent and either comprises	significant part of wetland's
		Mudflats			vegetation and is of modera	te quality or comprises a small
		Open water	alii a		part and is of high quality	
		Other		3 Pi	resent and comprises signific	cant part, or more, of wetland's
		6b. horizontal (plan view) Inters	persion		vegetation and is of high qui	ality
		Select only one.				
		High (5)	Narrati	ive Descr	iption of Vegetation Qualit	ty
		Moderately high(4)	lo	w Lo	ow spp diversity and/or pred	ominance of nonnative or
		Moderate (3)			disturbance tolerant native s	species
		Moderately low (2)	m	od Na	ative spp are dominant com	ponent of the vegetation.
		Low (1)				listurbance tolerant native spp
		None (0)			can also be present, and sp	
		6c. Coverage of invasive plants.	Refer		moderately high, but genera	lly w/o presence of rare
		to Table 1 ORAM long form for li			threatened or endangered s	pp
		or deduct points for coverage	hig	gh A	predominance of native spe	cles, with nonnative spp
		Extensive >75% cover	(-5)		and/or disturbance tolerant i	native spp absent or virtually
		Moderate 25-75% cov			absent, and high spp diversi	ity and often, but not always,
	6	Sparse 5-25% cover (-			the presence of rare, threate	ened, or endangered spp
		Nearly absent <5% co	ver (0)			
		Absent (1)	Mudfla	at and Op	en Water Class Quality	
		6d. Microtopography.) Al	bsent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 sci	ale. 1	1 Lo	ow 0.1 to <1ha (0.247 to 2.4)	7 acres)
		Vegetated hummucks/	tussucks 2	2 M	oderate 1 to <4ha (2.47 to 9	9.88 acres)
		Coarse woody debris :	>15cm (6in) 3	3 Hi	igh 4ha (9.88 acres) or more	
		Standing dead >25cm	(10in) dbh			
		/ Amphibian breeding po	ools Microt	opograph	ny Cover Scale	
					bsent	
			1		resent very small amounts o of marginal quality	r if more common
					resent in moderate amounts quality or in small amounts o	
			3	3 Pi	resent in moderate or greate	r amounts
17			0 0		and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	(FES) NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
•	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology	7	
	Metric 4. Habitat	7	
	Metric 5. Special Wetland Communities	Ò	
	Metric 6. Plant communities, interspersion, microtopography	-4	
	TOTAL SCORE	/3	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos, 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the welland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the welland is determined to be a Category 3 welland using either of these, it should be categorized as a Category 3 welland. Detailed biological and/or functional assessments may also be used to determine the welland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the welland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the welland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wellands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Fi	nal Category	
Choose one	/ Category 1)	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Wetland E - Ironville Pipeline

Background Information

S. Peffer / N. Daniels				
Date: April 5, 2018				
Affiliation: Utility Technologies International, Inc.				
4700 Homer Ohio Lane, Groveport, OH				
Phone Number: 614-482-8080				
e-mail address: speffer@uti-corp.com				
Name of Wetland: Wetland E				
Vegetation Communit(les): Emergent				
HGM Class(es): Depressional				
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.				
See Wetland Maps.				
Lat/Long or UTM Coordinate 41deg40'4.48"N / 83deg28'24.55"W				
USGS Quad Name Oregon, Ohio-Michigan				
County Lucas				
Township Oregon				
Section and Subsection				
Hydrologic Unit Code Lower Maumee - 04100010				
Site Visit April 5, 2018 National Wetland Inventory Map				
Ohio Wetland Inventory Map				
Soil Survey				
Delineation report/map				

Name of Wetland:	Wetland E		
Wetland Size (acres	, hectares):		
Sketch: Include nort	th arrow, relationship with other surface waters, veget	ation zones, etc.	
Culvent	RR easement Watland E	(gravel)	*
	Cauntry Yard	On watland	P
Comments, Narrativ	ve Discussion, Justification of Category Changes:		1
	1)4		
	NA		
Final score :	10	Category:	1

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	/	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		/
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		/
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		V

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	P
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland, Go to Question 3	NO Ga to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Welland is a Category 3 welland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Welland is a Category 1 welland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
Z	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			\rightarrow
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	7
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	(NO)
9b	elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to	Go to Question 9b YES	Go to Question 10
	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
·9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
	0.0	Go to Question 10	
90	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		>
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1. Characteristic plant species.

Invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var, glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherode
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellit
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwell
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrews
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicat
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflor
	Parnassia glauca	Schechzeria palustris		Lythrum alatui
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianui
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceur
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinat
	Salix myricoides	Woodwardia virginica		Solidago riddell
	Salix serissima	Xyris difformis		
	Solidago ohioensis	, 2		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland E - Ironville Pipeline	Rater(s): S. Peffer/N. Daniels	Date: April 5, 2018
/ Metric 1. Wetland	Area (size).	
Select one size class and assign >50 acres (>20.2ha) (6 25 to <50 acres (10.1 t 10 to <25 acres (4 to < 3 to <10 acres (1.2 to < 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0	pts) o <20,2ha) (5 pts) 10,1ha) (4 pts) 4ha) (3 pts) <1,2ha) (2pts) to <0,12ha) (1 pt)	
/ 2 Metric 2. Upland	ouffers and surroundin	g land use.
WIDE. Buffers average MEDIUM. Buffers average NARROW. Buffers average NARROW. Buffers average VERY NARROW. Buffers average NARROW. Buffers NARROW. Buf	th. Select only one and assign score. Do no 50m (164ft) or more around wetland perinage 25m to <50m (82 to <164ft) around we trage 10m to <25m (32ft to <82ft) around we trage 10m to <25m (32ft to <82ft) around wetland puse. Select one or double check and averation or older forest, prairie, savannah, wildlife trars), shrub land, young second growth fore Residential, fenced pasture, park, conservel, open pasture, row cropping, mining, conservely.	neter (7) etland perimeter (4) wetland perimeter (1) perimeter (0) rage. e area, etc. (7) est. (5) vation tillage, new fallow field. (3)
Metric 3. Hydrolo	gy.	
	urface water (3) (lake or stream) (5) 3d. Dict only one and assign score. 6in) (2)	ponnectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland comidor (1) uration inundation/saturation. Score one or dbl check. Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) and average.
None or none apparent Recovered (7) Recovering (3) Recent or no recovery	ditch tile	point source (nonstormwater) filling/grading road bed/RR track dredging other
Metric 4. Habitat	Alteration and Develop	ment.
max 20 pts. subtotal 4a. Substrate disturbance, Scor None or none apparen Recovering (2) Recovering (2) Recent or no recovery 4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	1)	
4c. Habitat alteration. Score one		
Recovered (6) Recovering (3) Recent or no recovery aubtotal this page last revised 1 February 2001 jim	mowing grazing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

Metric 5. Special Wetlands. Metric 5. Special Wetlands. Metric 5. Special Wetlands. Metric 5. Special Wetlands. Beg (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric costatil/ributary wetland-usrestricted hydrology (10) Lake Eric costatil/ributary wetland-usrestricted hydrology (5) Lake Eric costatil/ributary wetland-usrestricted hydrology (6) Lake Eric costatil/ributary wetland-usrestricted hydrology (7) Relied Wet Prairies (10) Room occurrence state/fedderal threatened or endangered species (10) Significant impratory sorgibir/dwater frowt habitat or usage (10) Rhown occurrence state/fedderal threatened or endangered species (10) Significant impratory sorgibir/dwater frowt habitat or usage (10) Rhown occurrence state/fedderal threatened or endangered species (10) Significant impratory sorgibir/dwater frowt habitat or usage (10) Rhown occurrence state/fedderal threatened or endangered species (10) Significant impratory sorgibir/dwater frowt habitat or usage (10) Rhown occurrence state/fedderal threatened or endangered species (10) Significant markers (10) Metric 6. Plant communities, interspersion, microtopography. Vegetation Community Cover Scale A part and wetler comprises significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises and is of moderate quality or c	Site: Wetland E -	tronville Pipeline Rater	S. Peffer	N. Daniels Date: April 5, 2018	
Check all that apply and score as indicated. Bog (10) Bog (10) Far (10) Old growth forest (10) Muture forested welland (5) Lake Eric costatistributary welland-unrestricted hydrology (10) Lake Plan's Sand Franties (Oak Openings) (10) Robert Well Francis (10) Robert Well	subtotal first pa	1ge			
Bog (10) Fen (10) Old growth forest (10) Mature forested welland (5) Lake Erie coastal/tributary welland-unrestricted hydrology (10) Lake Erie coastal/tributary welland-restricted hydrology (10) Lake Erie coastal/tributary welland-restricted hydrology (5) Lake Plain Sand Prairies (20k Openings) (10) Relict Wet Prairies (10) Known occurrance state/federal threatened or endangered species (10) Significant migratory songlar/dwater from habitat or usage (10) Category 1 Wetland. See Question 1 Coalitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. Wegtation Community Cover Scale Score all present using 0 to 3 scale. Apusition of the Communities of the Category of Wetland's vegetation and is of moderate quality, or comprises a significant part of welland's vegetation and is of moderate quality or comprises a significant part of welland's vegetation and is of moderate quality or comprises a significant part of welland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part of welland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part of welland's vegetation and is of moderate quality or organises significant part, or more, of welland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or moderate to light quality. Nerretive Description of Vegetation and is of moderate quality or organises and or disturbance tolerant native species and shough nonsative and/or disturbance tolerant native species and s	0 10	Metric 5. Special Wetlan	ds.		
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Shrub Significant part but is of low quality		and the same	1		
Present and either comprises significant part of welland's vegetation and is of moderate quality or comprises a small part and is of high quality					
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Open water			2		
Other Select only one.					Idii
Select only one Native persion Vegetation and is of high quality			- 3		de
Select only one. High (5) Moderately high(4) Moderatel (3) Moderatel (3) Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Ocarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pods Marrative Description of Vegetation Quality low Low spp diversity and/or predominance of nonnalive or disturbance tolerant native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp Mudflat and Open Water Class Quality Mudflat and Open Water Class Quality O Absent <1 Low 0 1 to <1ha (0.247 acres) Wegetated hummucks/tussucks O Absent <0.1ha (0.247 acres) A Microtopography Cover Scale Microtopography Cover Scale O Absent in moderate amounts, but not of highest quality or in small amounts of highest quality or in small amounts of highest quality			3		us
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3 Present in moderate or greater amounts			~		
/ O			3		
10	10			and or ingliest quality	
	10				

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (10)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	VES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be
	Question 9b. Lake Erie Wetlands - Restricted	YES (10)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (19	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	5	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	0	
	TOTAL SCORE	10	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

End of Ohio Rapid Assessment Method for Wetlands.

Wetland G - Ironville Pipeline

Background Information

Name: S. Peffer / N. Daniels
Date:
April 5, 2018 Affiliation: In the second se
Utility Technologies International, Inc.
Address: 4700 Homer Ohio Lane, Groveport, OH
Phone Number: 614-482-8080
e-mail address: speffer@uti-corp.com
Name of Wetland: Wetland G
Vegetation Communit(ies): Emergent
HGM Class(es): Depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
See Wetland Maps
Lat/Long or UTM Coordinate 41deg40'4.48"N / 83deg28'24.55"W
USGS Quad Name Oregon, Ohio-Michigan
County Lucas
Township Oregon
Section and Subsection
Hydrologic Unit Code Lower Maumee - 04100010
Site Visit April 5, 2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey
Delineation report/map

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	/	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	/	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		V
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		V
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	0
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland, is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			$\mathcal{O}_{\mathcal{A}}$
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	YES	(NO)
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible	Go to Question 9a
	diameters greater than 450an (17.7m) don't	Category 3 status.	
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
	an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO
	prevent erosion and the loss of aquatic plants, i.e. the wetland is		
	partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"estuarine" wetland with lake and river influenced hydrology. These	GO TO CITARRION 20	GO TO CARSTION TO
	include sandbar deposition wetlands, estuarine wetlands, river mouth		
9d	wetlands, or those dominated by submersed aquatic vegetation.	YES	. NO
ขน	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant	150	NO
	native species can also be present?	Wetland is a Category	Go to Question 9e
		3 wetland	
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be	Go to Question 10
		evaluated for possible	00 10 Question 10
		Category 3 status	
		Go to Question 10	A CONTRACTOR OF THE CONTRACTOR
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be		
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within	Wetland is a Category 3 wetland.	Go to Question 11
	several inches of the surface, and often with a dominance of the	o manana.	
	gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this		
	type of wetland and its quality.		
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
	dominated by some or all of the species in Table 1. Extensive prairies	Molland should be	Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	Wetland should be evaluated for possible	Complete Quantitative
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,		
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	
	<u> </u>	Lisaming	

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensi
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis strict
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherode
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaum
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellit
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwell
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrews
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	_ •	Helianthus grosseserrati
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spica
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflor
71 0	Parnassia glauca	Schechzeria palustris		Lythrum alatu
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianu
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceu
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutai
	Salix candida	Vaccinium oxycoccos		Spartina pectina
	Salix myricoides	Woodwardia virginica		Solidago riddeli
	Salix serissima	Xyris difformis		•
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Wetland G - Ironville Pipeline	Rater(s): S. Peffer/N. Daniels	Date: April 5, 2018
Metric 1. Wetland	Aroa (sizo)	
	• • • • • • • • • • • • • • • • • • • •	
max 6 pts. subtotal Select one size class and assign so >50 acres (>20,2ha) (6 p		
25 to <50 acres (10.1 to		
10 to <25 acres (4 to <10	.1ha) (4 pts)	
3 to <10 acres (1,2 to <4 0,3 to <3 acres (0,12 to <		
0.1 to <0.3 acres (0.04 to	<0.12ha) (1 pt)	
<0,1 acres (0,04ha) (0 pt		
Metric 2. Upland b	uffers and surrounding land us	e.
	Select only one and assign score. Do not double check.	
	60m (164ft) or more around welland perimeter (7) ge 25m to <50m (82 to <164ft) around welland perimeter (4	1
NARROW. Buffers avera	ige 10m to <25m (32ft to <82ft) around wetland perimeter	'/ (1)
	s average <10m (<32ft) around wetland perimeter (0)	
	e. Select one or double check and average. or older forest, prairie, savannah, wildlife area, etc. (7)	
LOW. Old field (>10 year	rs), shrub land, young second growth forest. (5)	
MODERATELY HIGH. R	esidential, fenced pasture, park, conservation tiliage, new fopen pasture, row cropping, mining, construction. (1)	fallow field. (3)
Metric 3. Hydrolog		
max 30 pls. subtotal 3a, Sources of Water, Score all th	at apply, 3b. Connectivity. Score	all that apply
High pH groundwater (5)	at apply, 55. Connectivity. Score	
Other groundwater (3)		am/lake and other human use (1)
Precipitation (1) Seasonal/Intermittent sur		d/upland (e.g. forest), complex (1) n or upland comidor (1)
Perennial surface water (saturation. Score one or dbl chec
3c. Maximum water depth, Select		namently inundated/saturated (4)
>0.7 (27.6in) (3) 0.4 to 0.7m (15,7 to 27.6i		ndated/saturated (3)
<0.4m (<15,7in) (1)	Seasonally sa	turated in upper 30cm (12in) (1)
3e. Modifications to natural hydrological	gic regime. Score one or double check and average.	
None or none apparent (
Recovered (7) Recovering (3)	ditch point source (nonstormwater)
Recent or no recovery (1	dike road bed/RR t	track
	weir dredging dredging	hultand
	stormwater input \ \ other Tol	men Hall
4,5 // Metric 4. Habitat A	Iteration and Development.	nt location
max 20 pts. subtotal 4a. Substrate disturbance. Score		
None or none apparent (Recovered (3)	1)	
Recovering (2)		
Recent or no recovery (1		
4b. Habitat development. Select o Excellent (7)	nly one and assign score,	
Very good (6)		
Good (5)		
Moderately good (4) Fair (3)		
Poor to fair (2)		
Poor (1) 4c. Habitat alteration, Score one of	r double about and average	
None or none apparent (mowing shrub/sapling	removal
Recovering (3)	grazing herbaceous/a	quatic bed removal
Recent or no recovery (1	clearcutting 7 sedimentation selective cutting dredging	
//	woody debris removal farming	
	toxic pollutants nutrient enrich	nment
subtotal this page		

Site: Wetland	d G - i	ronville Pipeline	Rater	S. Peffer	N. Daniels	Date: April 5, 2018
subtotal	first pag	Metric 5. Special	Wetlan	ds.		
max 10 pts sub	ototal	Check all that apply and score as Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Plain Sand Prairie Relict Wet Prairies (10) Known occurrence state	indicated. d (5) ary wetland-u ary wetland-ro s (Oak Open	nrestricted hydestricted hydro ings) (10)	logy (5)	
		Significant migratory so Category 1 Wetland. So	ngbird/water	fowl habitat or	usage (10)	
/ /	7	Metric 6. Plant co				topography.
max 20 pts sub	ototal	C- Mi-Nord Viscolation Communication	Man	Vocatellos	Community Cover Seale	
max ev pis Suo	ruruali	6a. Wetland Vegetation Commun Score all present using 0 to 3 scale		vegetation 0	Community Cover Scale Absent or comprises <0.1ha (0	2471 acres) contiguous area
		Aquatic bed	0.	1	Present and either comprises	
		// Emergent			vegetation and is of moderat	•
		77 Shrub			significant part but is of low of	
		Forest		2	Present and either comprises	
		Mudflats			·	e quality or comprises a small
		Open water			part and is of high quality	
		Other		3	Present and comprises signific	ant part, or more, of wetland's
		6b. horizontal (plan view) Interspe	ersion.		vegetation and is of high qua	
		Select only one.			1 1050.00.00.00.00.00.00.00.00.00.00.00.00.	
		High (5)		Narrative D	escription of Vegetation Qualit	v
		Moderately high(4)		low	Low spp diversity and/or predo	
		Moderate (3)		1011	disturbance tolerant native s	
		Moderately low (2)		mod	Native spp are dominant comp	
		Low (1)		11100	although nonnative and/or di	
		None (0)			can also be present, and spe	* •
		6c. Coverage of invasive plants.	Refer		moderately high, but general	
		to Table 1 ORAM long form for list			threatened or endangered sp	
		or deduct points for coverage		high	A predominance of native spec	
		Extensive >75% cover ((-5)		and/or disturbance tolerant re	
		Moderate 25-75% cove			absent, and high spp diversit	
		Sparse 5-25% cover (-1			the presence of rare, threate	
		Nearly absent <5% cover			110 p1000.100 01 1010; 1110010	ited of orthograph
		Absent (1)	Ci (O)	Mudflat and	Open Water Class Quality	
		6d. Microtopography.		0	Absent <0,1ha (0.247 acres)	
		Score all present using 0 to 3 scal	le	1	Low 0.1 to <1ha (0.247 to 2.47	acres)
		Vegetated hummucks/te		2	Moderate 1 to <4ha (2.47 to 9	
		Coarse woody debris >		3	High 4ha (9.88 acres) or more	
		Standing dead >25cm (ingh and (0.00 dolos) of more	
		/ Amphibian breeding po		Microtones	raphy Cover Scale	
			0.0	0	Absent	
				1	Present very small amounts or	if more common
				•	of marginal quality	- India delition
				2	Present in moderate amounts.	but not of highest
				~	quality or in small amounts o	
				3	Present in moderate or greater	
				3	and of highest quality	arregaria
IA.					Land or riightest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	(YES) NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	5.5	
	Metric 4. Habitat	4.5	
	Metric 5. Special Wetland Communities	8	
	Metric 6. Plant communities, interspersion, microtopography	1	
	TOTAL SCORE	12	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

This foregoing document was electronically filed with the Public Utilities

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in

Case No(s). 18-1601-GA-BLN

Summary: Letter of Notification Attachment J (Part 3b of 4) electronically filed by Mr. Michael J. Settineri on behalf of Generation Pipeline LLC