Site: AEP TO	ENT-DERAWANE	Rater(s): PA	DJAC	Date: /2/19/12
(2) 0	Metric 1. Wetland A	Area (size).		•
max 6 pts. subtotal	Select one size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10." 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)	.) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
3 3	Metric 2. Upland bu	iffers and sur	rounding land u	se.
max 14 pts. subtotal	NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use	Im (164ft) or more around a 25m to <50m (82 to <16 to <16 to <25m (32ft to < average <10m (<32ft) around a 25m (32ft to < average <10m (<32ft) around a 25m (32ft) aro	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) der (1)
9	Metric 3. Hydrology		, riming, concudence (1)	
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfar Perennlal surface water (la 3c. Maximum water depth. Select of 50.7 (27.6ln) (3) 0.4 to 0.7m (15.7 to 27.6in c).4m (<15.7in) (1) 3e. Modifications to natural hydrology	nce water (3) ke or stream) (5) nly one and assign score) (2)	Between st Part of wetl Part of ripa 3d. Duration inundate Semi- to pe Regularly in Seasonally Seasonally	ore all that apply. codplain (1) tream/lake and other human use (1) land/upland (e.g. forest), complex (1) rian or upland corridor (1) con/saturation. Score one or dbl check. ermanently inundated/saturated (4) nundated/saturated (3) r Inundated (2) r saturated In upper 30cm (12in) (1)
	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)		s observed point source filling/gradii road bed/R dredging	RR track
Q 17	Metric 4. Habitat Al	teration and I	Development.	<u> </u>
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)		verage.	
	Poor (1) 4c. Habitat alteration. Score one or			
subtotal this per		Check all disturbance mowing grazing clearcutting selective cutting woody debris re toxic pollutants	shrub/sapli herbaceou sedimentat dredging	

Site: AND TRANT- DELAWARE Rater	(s): 12/	10, the Date: 1019/2
P. POPOT OCCUPANTAL.	<u> </u>	- C - C - C - C - C - C - C - C - C - C
sublotal first page Metric 5. Special Wetlan	ıds.	
0 14- metrie or opeoidi victiari		
max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-Lake Erie coastal/tributary wetland-Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water	estricted hydro nings) (10) eatened or enda	angered species (10)
Category 1 Wetland. See Question	1 Ouglitative R	usage (10)
		erspersion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed	1	Present and either comprises small part of wetland's
Emergent Shrub		vegetation and is of moderate quality, or comprises a
Forest	2	significant part but is of low quality Present and either comprises significant part of wetland's
Mudflats	2	vegetation and is of moderate quality or comprises a small
Open water		part and is of high quality
Other	3	Present and comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
Select only one. High (5)	Namatica D	annulation of the second of the
Moderately high(4)	low	escription of Vegetation Quality Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbance tolerant native species
Moderately low (2)	mod	Native spp are dominant component of the vegetation,
OLow (1)		although nonnative and/or disturbance tolerant native spo
None (0) 6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to
to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare threatened or endangered spp
or deduct points for coverage	high	A predominance of native species, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
3 Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
Nearly absent <5% cover (0) Absent (1)	Mondelmhanad	0
6d. Microtopography.	0	Open Water Class Quality 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 acres)
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
ottaining dead * 200iii (10iii) dbii		
Amphibian breeding pools		aphy Cover Scale
	0	Absent Present very small amounts or if more common
Jan A	'	of marginal quality
\mathcal{L}	2	Present in moderate amounts, but not of highest
T V ' /		quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
1 1		and of highest quality

Site: ALP -	TACINT - DEZ AC	Rater(s):	13AD: JHC	Date: /p.19/2
111	Metric 1. W	etland Area (size))	
max 6 pts. subtotal	25 to <50 ac 10 to <25 ac 3 to <10 acr 0.3 to <3 acr	and assign score. 20.2ha) (6 pts) res (10.1 to <20.2ha) (5 pts) res (4 to <10.1ha) (4 pts) es (1.2 to <4ha) (3 pts) res (0.12 to <1.2ha) (2pts) res (0.04 to <0.12ha) (1 pt) 0.04ha) (0 pts)		
4 5	Metric 2. Up	land buffers and	surrounding land	use.
max 14 pts. subtotal	WIDE. Buffe MEDIUM. B NARROW. I VERY NARE 2b. Intensity of surrour VERY LOW. LOW. Old fir MODERATE HIGH. Urbal	ers average 50m (164ft) or more uffers average 25m to <50m (82 Buffers average 10m to <25m (\$2 ROW. Buffers average <10m (\$2 R	2 to <164ft) around wetland perime 32ft to <82ft) around wetland perin 32ft) around wetland perimeter (0) louble check and average. irie, savannah, wildlife area, etc. (7	eter (4) neter (1) 7) new fallow field. (3)
10 15	Metric 3. Hy	drology.		
max 30 pts. subtotal	Perennial sur 3c. Maximum water de >0.7 (27.6ln) 0.4 to 0.7m (O.4 to 0.7m (4 o.4m (<15.7) 3e. Modifications to na	Indwater (5) Iwater (3) (1) ermittent surface water (3) rface water (lake or stream) (5) rpth. Select only one and assign (3) 15.7 to 27.6in) (2) I'in) (1) tural hydrologic regime. Score e apparent (12) Check all distured title	100 yea Betweer A Part of v Part of v Part of v Part of v SemI-to Regularl Season Season Season Trbances observed point so	urce (nonstormwater)
	Procedure and the second	weir stormwa	dredging	J
85 23.5	Metric 4. Ha	bitat Alteration a	nd Development.	
max 20 pts. subtotal	None or none Recovered (3 Recovering (Recent or no	2) recovery (1) nt. Select only one and assign		
	Moderately g Fair (3) Poor to fair (2) Poor (1)	• •	average.	
subtotal this pa	None or none Recovered (to Recovering (Recent or no	c apparent (9) (5) (7) (8) (8) (9) (9) (1) (1) (1) (2) (1) (2) (3) (4) (4) (5) (6) (7) (7) (7) (7) (7) (8) (8) (9) (1) (9) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	rbances observed shrub/sa herbace sedimen cutting cutting ebris removal shrub/sa shrub/sa herbace sedimen dredging	ll l

Site: AEP	THENT - OFTHENARE Rate	er(s): 13 s	10 JAC	Date: /2/9/12
23			·	
subtotal	first page			
0 23	Metric 5. Special Wetla	nds.		
max 10 pts. sub	total Check all that apply and score as indicated.			
	Bog (10)			
	Fen (10) Old growth forest (10)			
	Mature forested wetland (5)			
	Lake Erie coastal/tributary wetland	-unrestricted hy-	drology (10)	
	Lake Erie coastal/tributary wetland		ology (5)	
	Lake Plain Sand Prairies (Oak Ope	enings) (10)		
	Relict Wet Prairies (10) Known occurrence state/federal th	ractoned or and	annound (10)	
	Significant migratory songbird/water			
	Category 1 Wetland. See Question			
- 00	Metric 6. Plant commur			onogrank
5 28	5,2	ntics, int	erspersion, microt	opograpny.
max 20 pts. subte	otal 6a. Wetland Vegetation Communitles.	Vegetation	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.3	2471 acres) continuous area
	Aquatic bed	1	Present and either comprises sr	
	a Emergent		vegetation and is of moderate	quality, or comprises a
	2 Shrub Forest		significant part but is of low qu	
	Mudflats	2	Present and either comprises sign	gnificant part of wetland's
	Open water		vegetation and is of moderate part and is of high quality	quality or comprises a small
	Other	3	Present and comprises significa	nt part or more of wetlands
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quali	
	Select only one.			
	High (5)		escription of Vegetation Quality	
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predom	inance of nonnative or
	Mandamatal village (O)	mod	disturbance tolerant native spe Native spp are dominant compo	nent of the vocatation
	O Low (1)	***************************************	although nonnative and/or dist	urbance tolerant native con
	None (0)		can also be present, and spec	es diversity moderate to
•	6c. Coverage of invasive plants. Refer		moderately high, but generally	w/o presence of rare
	to Table 1 ORAM long form for list. Add or deduct points for coverage		threatened or endangered spp	
	Extensive >75% cover (-5)	high	A predominance of native specie	es, with nonnative spp
	Moderate 25-75% cover (-3)		and/or disturbance tolerant nat absent, and high spp diversity	and often, but not clusure
	Sparse 5-25% cover (-1)		the presence of rare, threatene	ed. or endangered son
	Nearly absent <5% cover (0)			-, or orleangulod opp
	Absent (1)		Open Water Class Quality	
	6d. Microtopography. Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres)	
	Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 a	cres)
	Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.8 High 4ha (9.88 acres) or more	s acres)
	Standing dead >25cm (10in) dbh		Trigit that (9.00 acres) of more	
	1 Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
1			of marginal quality	
1_		2	Present in moderate amounts, bu	It not of highest
		3	quality or in small amounts of h Present in moderate or greater a	
00		9	and of highest quality	nounts

Site:	AEP -	TREV	л-Dtza	WANE	· · · · · · · · · · · · · · · · · · ·	Rater(s):	BAO.	JAIC		Date: /2/9/	ر _م
						·			3, .0		110171	
2	2	M	letric '	1. W	etland A	rea (s	ize).					
max 6 pts.	subtotal	ੁੱSe	>50 25 1 10 1 3 to \$\times 0.3 0.1) acres (2 to <50 acto <25 acto <10 acreto <3 acreto <3 acreto <0.3 acreto <0.	and assign sco >20.2ha) (6 pts cres (10.1 to <2 cres (4 to <10.1 es (1.2 to <4ha res (0.12 to <1, acres (0.04 to < 0.04ha) (0 pts)) (0.2ha) (5 p ha) (4 pts)) (3 pts) 2ha) (2pts) 0.12ha) (1	·)					
4	6	M	etric 2	2. Uį	oland bu	ffers a	and :	surro	undi	ng	land use.	
nax 14 pts.	subtotal	1	MEI NAF VEF Intensity C LOV MOI	DE. Buff DIUM. E RROW. RY NARI OF SUFFOUR RY LOW W. Old fi DERATE	Buffers average ROW. Buffers anding land use. 2nd growth oreld 2nd (>10 years)	m (164ft) or 25m to <50 at 10m to < average <10 select or older forest should be sidential, fe	r more a 0m (82 to 25m (32 0m (<32 ne or do st, prairi d, young nced pa	around we to <164ft) 2ft to <82 2ft) aroun Juble che de, savani g second asture, pa	etland pe around ft) aroun d wetlan ck and av nah, wild growth f rk. conse	erimete wetlar d wetl d peri verage life ard orest. ervatio	er (7) nd perimeter (4) land perimeter (1) meter (0) e. rea, etc. (7) (5) on tillage, new fallow field, (3)	
	112	M	etric 3	3. Hy	drology	*						
I (subtotal	4 3c.	High Othe Sea Pere Maximum >0.4									

A			15			
Site: AEP T	NEW	T- DFZAWIARF	Rater(s):	130	40. JAC	Date: 121912
subtotal first	N	letric 5. Special \				
		Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributal Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory son Category 1 Wetland. Se	(5) y wetland-unrestrict y wetland-restricted (Oak Openings) (10 federal threatened o gbird/water fowl hab	hydrolo)) or endai oltat or u	ogy (5) ngered species (10) usage (10)	
1 24	_]	etric 6. Plant cor	nmunities,		erspersion, microto	pography.
max 20 pts. subtotal		Wetland Vegetation Communit		ation (Community Cover Scale	
	Sco	re all present using 0 to 3 scale	·	0	Absent or comprises <0.1ha (0.24	
	2	Aquatic bed 2 Emergent Shrub		1	Present and either comprises small vegetation and is of moderate of significant part but is of law and	uality, or comprises a
	~	Forest		2	significant part but is of low qua Present and either comprises sign	
		Mudflats		-	vegetation and is of moderate q	
		Open water			part and is of high quality	daily or comprises a small
		Other		3	Present and comprises significant	part or more of wotland's
	6b.	horizontal (plan view) Intersper		-	vegetation and is of high quality	
		ect only one.			Transfer and to or might quality	
		Hlgh (5)	Narra	tive De	scription of Vegetation Quality	
		Moderately high(4)		ow	Low spp diversity and/or predomin	nance of nonnative or
		Moderate (3)			disturbance tolerant native spec	ies
		Moderately low (2)	n	od	Native spp are dominant compone	
	- [X Low (1)			although nonnative and/or distu	
		None (0)			can also be present, and specie	s diversity moderate to
		Coverage of invasive plants. R			moderately high, but generally v	v/o presence of rare
		able 1 ORAM long form for list.			threatened or endangered spp	
	or d	educt points for coverage		lgh	A predominance of native species	, with nonnative spp
		Extensive >75% cover (-5			and/or disturbance tolerant nativ	e spp absent or virtually
	_5	Moderate 25-75% cover (-3)		absent, and high spp diversity a	nd often, but not always,
		Sparse 5-25% cover (-1)	(0)		the presence of rare, threatened	l, or endangered spp
		Nearly absent <5% cover Absent (1)		_4	0	
	64	Microtopography.			Open Water Class Quality	
		re all present using 0 to 3 scale.		0 1	Absent <0.1ha (0.247 acres)	
	000	Vegetated hummucks/tus		2	Low 0.1 to <1ha (0.247 to 2.47 ac	res)
	1	Coarse woody debris >15		3	Moderate 1 to <4ha (2.47 to 9.88	acres)
	ı	Standing dead >25cm (10		<u> </u>	High 4ha (9.88 acres) or more	
		Amphibian breeding pools	,	opone	aphy Cover Scale	
				0	Absent	
1				1	Present very small amounts or if n	nore common
11					of marginal quality	.c. c continue
J. J				2	Present in moderate amounts, but	not of highest
H.J					quality or in small amounts of hig	
				3	Present in moderate or greater an	
					and of highest quality	

Site: #	401) 16	EN	T- DEZHIOAME	Rater(s):	BAU, JAC		Date:	121912
<u> </u>	CP							
1	1	Me	etric 1. Wetland	Area (size)	•			
max 6 pts.	subtotal	_	ct one size class and assign: >50 acres (>20.2ha) (6 25 to <50 acres (10.1 to 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 p	pts) 0 <20.2ha) (5 pts) 10.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) to <0.12ha) (1 pt) pts)	_			
8	9	ł	etric 2. Upland l					
nax 14 pts.	sublotal	4	Calculate average buffer widl WIDE. Buffers average MEDIUM. Buffers aver NARROW. Buffers aver VERY NARROW. Buffill Intensity of surrounding land VERY LOW. 2nd grow LOW. Old field (>10 ye MODERATELY HIGH. HIGH. Urban, Industria	e 50m (164ft) or more age 25m to <50m (82 erage 10m to <25m (6 ers average <10m (< use. Select one or of th or older forest, pra ears), shrub land, you Residential, fenced p	around wetland per 2 to < 164ft) around v 32ft to <82ft) around 32ft) around wetland louble check and av irie, savannah, wildli ng second growth fo pasture, park, conse	imeter (7) vetland perimeter (4) wetland perimeter (1) perimeter (0) erage. fe area, etc. (7) vest. (5) vation tillage, new fall	ow field. (3)	
18	27	Me	etric 3. Hydrolo					
max 30 pts.	subtotal	(g 3c.	Sources of Water. Score all High pH groundwater (3) Other groundwater (3) Precipitation (1) Seasonal/Intermittent s Perennial surface wate Maximum water depth. Sele >0.7 (27.6ln) (3) 0.4 to 0.7m (15.7 to 27 <0.4m (<15.7in) (1) Modifications to natural hydronics.	surface water (3) r (lake or stream) (5) ct only one and assig .6in) (2) clogic regime. Score	/ // 3d. i n score. る	Part of wetland/u Part of riparian of partion inundation/sa Semi- to perman Regularly inundation/sa Seasonally inundation/sa	ain (1) /lake and oth upland (e.g. to upland core turation. Somently inunda ated/saturate dated (2)	ore one or dbl check. ated/saturated (4)
		7	None or none apparent Recovered (7) Recovering (3) Recent or no recovery	(1) ditch tile dike weir	ater Input	point source (no filling/grading road bed/RR tradredging other / Cor	ck	
15	34.	M	etric 4. Habitat	Alteration a	and Develo	pment.		
max 20 pts.	subtotal	-1 4a. ∂.5 4b.	Substrate disturbance. Scol None or none apparent Recovered (3) Recovering (2) Recent or no recovery Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)	it (4)				
		9	Poor to fair (2)					
	34, 6	3	Habitat alteration. Score on None or none apparer Recovered (6) Recovering (3) Recent or no recovery	nt (9) Check all dis V mowing grazing v clearcu selectiv woody	turbances observed] 	shrub/sapling re herbaceous/aqu sedimentation dredging farming nutrient enrichn	uatic bed ren	noval
last revise	ed 1 Febru	ary 2	001 jjm					

WETLAND 20
ORAM v. 5.0 Field Form Quantitative Rating

W.13170-121912-04

Metric 5. Special Wetlands. Onex 18 pist. Substitute of Page 10 per 10	Site: AEP TRENT-	DEZMWARE	Rater(s):	BAO, JAC	Date: 121912
Check all that apply and score as indicated. Bog (19) Check all that apply and score as indicated. Bog (19) Old growth forest (10) Mature forested wetland (5) Lake Fie constaltributary welland-unrestricted hydrology (5) Lake Fie constaltributary welland-unrestricted hydrology (5) Lake Pain Sand Prairies (Oak Openings) (10) Relict Wat Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant impreson snopbirdwater forth habitat or usage (10) Significant myeratory snopbirdwater forth habitat or usage (10) Score all present using 0 to 3 scale. Aquatic bed Aquatic bed Aquatic bed Aquatic bed Aquatic bed Aquatic bed Corest Mudfats Open water Other Shrub One water Other Shrub Advarda (3) Moderatel (3) Moderatel (4) Moderatel (4) Moderatel (5) Edentative 75% cover (4) None (0) Soc Coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refer to Table 1 ORAM long form for itst. Add or dedutz points for coverage of Invasive plants. Refe	subtotal first page			'	
Bog (10) Fen (10) Cold growth forest (10) Mature forested wetland (5) Lake Efie coastel/inbutary wetland-unrestricted hydrology (10) Lake Efie coastel/inbutary wetland-restricted hydrology (10) Lake Efie coastel/inbutary wetland-restricted hydrology (5) Lake Plain Sand Prairies (304 Copenings) (10) Relict Wet Prairies (10) Contemporary (10) Relict Wet Prairies (10) Relict	0 34.5 Metric 5	5. Special W	etlands.		
Old growth forest (10) Meture forested wetland (5) Lake Erise coastal/tributary wetland-unrestricted hydrology (5) Lake Erise coastal/tributary wetland-restricted hydrology (5) Lake Pala Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrance state/federal threatened or endangered species (10) Significant intigratory songhirdwater fow habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Significant intigratory songhirdwater fow habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. Wetric 6. Plant communities, interspersion, microtopography. Wegetation community Cover Scale	Bog	(10)	cated.		
Lake Eria coastal/fibulary welland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Relict Wet Prair	Old	growth forest (10)			
Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Proiries (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fow habitat or usage (10) Scalegory 1 Wetland. See Question 1 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. Sea. Wetland Vegetation Communities. Socre all present using 0 to 3 scale. Aquatic bed Emergent Shrub Forest Other Other	Lake	Erie coastal/tributary v	vetland-unrestricte		
Known occurrence stake/federal threatened or endangered species (10) Significant migratory sonsphirdwater fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (10) Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub Forest Mudflats Open water Other Other Other Other Other Other Other Select only one. High (5) Moderately high(4) Moderately Now (2) Low (1) None (0) 6c. Cowrage of Invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetation Community Cover Scale 0 Absent (-1) Present and either comprises smill part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality 1 we present and comprises significant part of wetland's vegetation and is of high quality 1 we present and comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality 1 we present of vegetation and is of high quality 1 we present of vegetation and is of high quality 1 we present of a fact the comprises a significant part of wetland's vegetation and is of high quality 1 we present of a fact the comprises a significant part of wetland's vegetation and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or comprises a small part and is of high quality or compri	Lake	Plain Sand Prairies (C			
Category 1 Welland. See Question 1 Qualitative Rating (-10) Wetric 6. Plant communities, interspersion, microtopography. Saudicial Sea Welland Vegetation Communities. Score all present using 0 to 3 scale. Aquatic bed Aquatic bed Emergent Shrub Forest Mudflats Open water Other Oth	Knov	vn occurrence state/fed			
Score all present using 0 to 3 scale. Aquatic bed					
Score all present using 0 to 3 scale. Aquatic bed Emergent Aquatic bed Emergent Shrub Forest Forest Forest Mudflats Open water Other Other Other Shrub Forest Addidate Open water Other Other Steuch Other Steuch Other Steuch Other Other Other Steuch Other Oth	Metric 6	. Plant com	munities,	interspersion, m	icrotopography.
Acquatic bed Emergent Shrub Shrub Forest Mudflats Open water Other Other High (5) Moderately high(4) Moderately high(4) Moderately high (2) Low (1) None (0) 6. Coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants. Refer to Table 1 OPAM long form for list. Add or deduct points for coverage of Invasive plants are dominant component of the vegetation, although nonnative and/or disturbance tolerant native species of native species. With nonnative and species of native species of native species of native species. With nonnative and sp	· · · · · · · · · · · · · · · · · · ·	•	. Vegeta	ition Community Cover Scale)
Select only one. High (5) Moderately ligh(4) Moderatel (3) 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 plonts for coverage (Extensive >75% cover (-5) Moderatel (5) Moderatel (7) Moderatel (7) Moderatel (7) Moderatel (8) Moderatel (9) Modera		•	(
Shrub Forest Forest Mudflats Open water Other Other Other Select only one. High (5) Moderately high(4) Moderately low (2) Low (1) None (0) None (0) System or deduct points for coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover (-1) Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding poots Microtopography Cover Scale O Absent 1 Present and either comprises significant part of wetland's vegetation and is of high quality Present and comprises significant part, or more, of wetland's vegetation and is of high quality I part and is of high quality Present and comprises significant part of wetland's vegetation and is of high quality I part and is of high quality Neart and comprises significant part of wetland's vegetation and is of high quality I part and is of high quality I par			·		
Forest Mudflats Open water Opter Other Select only one. High (5) Moderately high(4) Moderately low (2) Low (1) None (0) Sec. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-1) Nearly absent (-1) Nearly absent (-1) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/lussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O Absent 1 Present and either comprises significant part of wetland's vegetation and is of high quality 1 Present and is of high quality 1 Present and comprises significant part, or more, of wetland's vegetation and is of high quality 1 Nearly logh quality 2 Present and comprises significant part of wetland's vegetation and is of high quality 3 Present and comprises significant part of wetland's vegetation and is of high quality Narrative Description of Vegetation and is of high quality Low spot quality Narrative Description of Vegetation and is of high quality Low spot quality Narrative Description of Vegetation and is of high quality Low spot quality Narrative Description of Vegetation and is of high quality Low spot quality Narrative Description of Vegetation and is of high quality Narrative Description of Vegetation and is of high quality Narrative Description of Vegetation and is of high quality Low spot quality Narrative Description of Vegetation and is of high part and comprises a smail part and is of high quality Narrative Description of Vegetation and is of high quality Narrative Description of Vegetation and is of high part and comprise and	1 '-3' 1 a.	•			
Mudflats Open water Other Oth	~ ⊢—				
Open water Other	Mudf	lats			
Other 6b. horizontal (plan view) Interspersion. Select only one. High (5)	Oper	n water			
Select only one. High (5) Moderately high(4) 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 < 1) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Milerotopography Cover Scale Mind Vegetation and is of high quality Narrative Description of Vegetation Quality low Low spp diversity and/or predominance of nonnative or disturbance tolerant native spp attentive spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp all over disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance tolerant	Othe	r			
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Moderate (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 (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O Absent Present very small amounts or if more common of marginal quality Present in moderate or greater amounts.	— ·		Narrat	ve Description of Vegetation	Quality
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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 (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Microtopography Cover Scale O Absent Present very smail amounts or if more common of marginal quality although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spo and/or disturbance tolerant native spp and/or disturbance of native species, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp and/or disturbance of native species, with nonative species, and species diversity moderate to frate threatened or endangered spp and/or disturbance tolerant native spp and/or disturbance toleran			me		
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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 (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present ln moderate amounts of highest quality 2 Present ln moderate or greater amounts	None	(0)		can also be present.	and species diversity moderate to
to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5)			er		
or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate or greater amounts					
Extensive >75% cover (-5) 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	or deduct points	s for coverage	hig		
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Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Microtopography Cover Scale Description Present very smail amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts	5 Mode	erate 25-75% cover (-3))		
Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Microtopography Cover Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts	Spars	se 5-25% cover (-1)			
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Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Microtopography Cover Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts or greater amounts Present in moderate or greater amounts	6d. Microtopog	raphy.			
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts	Score all preser	nt using 0 to 3 scale.	1		
Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present In moderate amounts, but not of highest quality or In small amounts of highest quality 3 Present in moderate or greater amounts					
Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts	Coan	se woody debris >15cn	n (6in)3	High 4ha (9.88 acres) o	r more
D Absent 1 Present very small amounts or if more common of marginal quality 2 Present In moderate amounts, but not of highest quality or In small amounts of highest quality 3 Present in moderate or greater amounts		ding dead >25cm (10in)	dbh		
Present very small amounts or if more common of marginal quality Present In moderate amounts, but not of highest quality or In small amounts of highest quality Present in moderate or greater amounts	Ampt	nibian breeding pools	<u>Mi</u> crot	opography Cover Scale	
of marginal quality Present In moderate amounts, but not of highest quality or In small amounts of highest quality Present in moderate or greater amounts Present in moderate or greater amounts			C		
Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts Present in moderate or greater amounts	- 7		1		unts or if more common
	A, d		2	Present In moderate am	
			3		
125	225			and of highest quality	

Site: AEPTRE	INT- DERAWARE	Rater(s):	BROWNC	Date: 121912
	Metric 1. Wetland	Area (size).	v.	
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 acres (4 to <10 acres (1.2 to <4) 0.3 to <10 acres (1.2 to <4) 0.3 to <0.3 acres (0.12 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 pto <10 acres (0.04ha)	ts) <20.2ha) (5 pts) 1.1ha) (4 pts) na) (3 pts) :1.2ha) (2pts) <0.12ha) (1 pt)		
8 9	Metric 2. Upland b	uffers and	surrounding land	use.
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. R	50m (164ft) or more a ge 25m to <50m (82 age 10m to <25m (3 s average <10m (<3 se. Select one or do or older forest, prair s), shrub land, youn esidential, fenced pa	around wetland perimeter (7) to <164ft) around wetland perime 2ft to <82ft) around wetland perine 2ft) around wetland perine 2ft) around wetland perimeter (0) buble check and average. ie, savannah, wildlife area, etc. (7	eter (4) meter (1) 7) new fallow field. (3)
11 20	Metric 3. Hydrolog		., 5.	
nax 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surimater Perennial surface water (1) 3c. Maximum water depth. Select (1) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (1) 3e. Modifications to natural hydrolo	face water (3) lake or stream) (5) only one and assign n) (2)	Between Part of w Part of ri Score. 3d. Duration Inund Semi-to Regulari Seasona Seasona Seasona	r floodplain:(1) n stream/lake and other human use (1) vetland/upland (e.g. forest), complex (1) iparian or upland corridor (1) latton/saturation. Score one or dbl check. p permanently inundated/saturated (4) ly inundated/saturated (3) ally inundated (2) ally saturated in upper 30cm (12in) (1)
	None or none apparent (1) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all distur ditch tile	point sot	urce (nonstormwater) ading d/RR track
1.5 27.5	Metric 4. Habitat A	Iteration a	nd Development.	
nax 20 pts. subtotal	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	()	-	. e
	Poor (1) 4c. Habitat alteration. Score one o			
subtotal this p		mowing grazing clearcuttir	herbaced sedimen dredging bris removal farming	11

W.BAD-12/012-05

Site: AEP THENT-DELAWARE	Rater(s): PA	O VHC	Date: 2/7/2
subtolal first page Metric 5. Special We max 10 pts. subtolal Check all that apply and score as indice	**		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erle coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (Oa Relict Wet Prairies (10) Known occurrence state/fede Significant migratory songbir Category 1 Wetland. See Qu	etland-restricted hydro ak Openings) (10) eral threatened or enda d/water fowl habitat or uestion 1 Qualitative R	angered species (10) usage (10) ating (-10)	iorotopo gues ha
Metric 6. Plant comr	numues, mu	erspersion, m	icrotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
Score all present using 0 to 3 scale.	0	Absent or comprises <(0.1ha (0.2471 acres) contiguous area
Aquatic bed	1	Present and either com	prises small part of wetland's
Emergent Shrub		vegetation and Is of n	noderate quality, or comprises a
Forest		significant part but is	
Mudflats	2	Present and either com	prises significant part of wetland's
Open water		vegetation and is of m	noderate quality or comprises a small
Other		part and is of high qua	ality
6b. horizontal (plan view) Interspersion	3	Present and comprises	significant part, or more, of wetland's
Select only one.	·	vegetation and is of h	igh quality
High (5)	Narrotivo De	anarimbian asilanatan	
Moderately high(4)	low	escription of Vegetation	Quality
Moderate (3)	IOW	disturbance telemet	r predominance of nonnative or
Moderately low (2)	mod	disturbance tolerant n	
b Low (1)	mod	although poppetite or	t component of the vegetation,
None (0)		can also be present a	nd/or disturbance tolerant native spp and species diversity moderate to
6c. Coverage of invasive plants. Refer		moderately blab, but a	generally w/o presence of rare
to Table 1 ORAM long form for list. Add	i	threatened or endange	ered son
or deduct points for coverage	high		e species, with nonnative spp
Extensive >75% cover (-5)	3	and/or disturbance tole	erant native spp absent or virtually
Moderate 25-75% cover (-3)		absent, and high spp	diversity and often, but not always,
→ Sparse 5-25% cover (-1)		the presence of rare, t	hreatened, or endangered spp
Nearly absent <5% cover (0)	<u></u>	<u> </u>	The state of the s
Absent (1)	Mudflat and	Open Water Class Quali	lty
6d. Microtopography.	0	Absent <0.1ha (0.247 a	
Score all present using 0 to 3 scale.	11	Low 0.1 to <1ha (0.247)	to 2.47 acres)
Vegetated hummucks/tussucl		Moderate 1 to <4ha (2.4	17 to 9.88 acres)
Coarse woody debris >15cm		High 4ha (9.88 acres) or	more
Standing dead >25cm (10in)			
Amphiblan breeding pools		aphy Cover Scale	
	0	Absent	
1	1	Present very small amou	ints or if more common
at 'V	· · · · · · · · · · · · · · · · · · ·	of marginal quality	· · · · · · · · · · · · · · · · · · ·
AT I	2	Present in moderate amo	ounts, but not of highest
• •		quality or in small amo	unts of highest quality
	3	Present in moderate or g	reater amounts
/ I		and of highest suglific	

WETZAND	22	
DRAM v. 5.0 Field Form	Quantitative	Rating

W-1340-121912-06

Site:	HEP	THENT-	DOZAWARE.	Rater(s):	13 NO.	JAC	Date: /タ19/2
}	1	Metric	: 1. Wetland A	Area (size).	. ,		
max 6 pts.	sublotal		size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <10 10 to <25 acres (4 to <10.3 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <10.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to)	6) 20.2ha) (5 pts) 1 ha) (4 pts) A) (3 pts) .2ha) (2pts) 50.12ha) (1 pt)			
8	9	Metric	: 2. Upland bu	ıffers and s	urroundi	ng land use.	
max 14 pls.	sublotal	2b. Intensi	ate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average MARROW. Buffers average VERY NARROW. Buffers to of surrounding land use VERY LOW. 2nd growth cOW. Old field (>10 years MODERATELY HIGH. RelIGH. Urban, industrial, o	om (164ft) or more and a 25m to <50m (82 to the 10m to <25m (82 to the 10m to <25m (32 to average <10m (<32 to the 10m to control or older forest, prairie to the 10m to the 10m to	round wetland per cound wetland per cound fit to <82ft) around fit around wetlan to le check and are, savannah, wild second growth feture, park, conse	wimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) werage. life area, etc. (7) orest. (5) ervation tillage, new fallo	ow field. (3)
9	18	Metric	3. Hydrology	/-			
max 30 pls.	subtotal	3c. Maximu	is of Water. Score all that ligh pH groundwater (5) other groundwater (3) trecipitation (1) treasonal/Intermittent surfactorial surface water (laum water depth. Select of 0.7 (27.6in) (3) 4.4 to 0.7m (15.7 to 27.6in) 0.4m (<15.7in) (1) ations to natural hydrolog	nce water (3) ke or stream) (5) nly one and assign s	/ 3d. core.	Part of wetland/uj Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund V Seasonally satura	in (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)
		\$ 荟昂	lone or none apparent (12 lecovered (7) lecovering (3) lecent or no recovery (1)	Check all disturb. ditch tile dike weir stormwater		point source (non filling/grading X road bed/RR trac dredging x other 1000	k
7.5	25.5	Metric	4. Habitat Al	teration an	d Develo	pment.	
max 20 pts.	subtotal	2.5 Report of the second of th	ate disturbance. Score or lone or none apparent (4) decovered (3) decovering (2) decent or no recovery (1) development. Select online devicellent (7) dery good (6) Good (5) dederately good (4)		_		
		2 F	rater (3) Poor to fair (2) Poor (1) alteration. Score one or	double check and a	/erage.		
	25,5 ubtotal lhis pa	3 = F	lone or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective co) utting ris removal	shrub/sapling rem herbaceous/aqua sedImentation dredging farming nutrient enrichme	itic bed removal

WETLAND 22
ORAM v. 5.0 Field Form Quantitative Rating

· 11)-1540-121912-06

Site: ACP THENT DICHWAMF Rater	r(s):	RAU VAC Date: 121910
subtotal first page Metric 5. Special Wetlar	nde	
6 25.5 Metric 3. Special Wellar	ius.	
max 10 pts. subtolal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5)		
Lake Erie coastai/tributary wetland-	restricted hydro	
Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal thre	- , , ,	
Significant migratory songbird/water Category 1 Wetland. See Question	fowl habitat or	usage (10)
THE PARTY OF THE P		erspersion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed	1	Present and either comprises small part of wetland's
Emergent Shrub		vegetation and is of moderate quality, or comprises a
Forest	2	significant part but is of low quality Present and either comprises significant part of wetland's
Mudflats	_	vegetation and is of moderate quality or comprises a small
Open water		part and is of high quality
Other	3	Present and comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
Select only one.	Manual Comp	
High (5) Moderately high(4)		escription of Vegetation Quality
Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
Moderately low (2)	mod	Native spp are dominant component of the vegetation,
Low (1)		although nonnative and/or disturbance tolerant native spp
None (0)		can also be present, and species diversity moderate to
6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
to Table 1 ORAM long form for list. Add		threatened or endangered spp
or deduct points for coverage	high	A predominance of native species, with nonnative spp
Extensive >75% cover (-5) Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually
Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always,
Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
Absent (1)	Mudflat and	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 acres)
/ Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
Standing dead >25cm (10in) dbh Amphibian breeding pools	Minata	manifest Course Co. 1
L. Aubuman preeding books		raphy Cover Scale
	0	Absent Present year small amounts or if more common
1	'	Present very small amounts or if more common of marginal quality
A2. L	2	Present in moderate amounts, but not of highest
11.	-	quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
76.5		and of highest quality
(C. OA)		

Site: A	EP TREN	T- DELAWARE	Rater(s):	BAO, JAC	Date: /2 /	9/2
6	·····	letric 1. Wetland A	rea (size).	<u> </u>		, - , - ;
max 6 pts.	subtotal Se	lect one size class and assign scor >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 <<1.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)			
9	9 M	etric 2. Upland bu	ffers and su	rrounding lan	d use.	
max 14 pts.	2b.	Calculate average buffer width. S WIDE. Buffers average 50r MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res HIGH. Urban, industrial, op	m (164ft) or more arou 25m to <50m (82 to < c 10m to <25m (32ft to exerge <10m (<32ft) of Select one or double of older forest, prairie, s of, shrub land, young se idential, fenced pastur en pasture, row cropp	and wetland perimeter (7) 164ft) around wetland perimon (82ft) around wetland perimeter (9 check and average. avannah, wildlife area, etchech cond growth forest. (5) re. park. conservation tillage.	meter (4) rimeter (1) 0) . (7) le. new fallow field (3)	
18	27 M	etric 3. Hydrology				
max 30 pts.	6 3c.	Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lak Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <a blue;"="" color:="" href="Otherwise-style=">O.4 to 0.7m (15.7 to 27.6in) <a blue;"="" color:="" href="Otherwise-style=">O.4m (<15.7in) (1) Modifications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) 	ce water (3) te or stream) (5) ly one and assign sco (2) regime. Score one o	Jack Duration inuiting Season of double check and average ses observed	Score all that apply. ear floodplain (1) een stream/lake and other hum f wetland/upland (e.g. forest), f riparian or upland corridor (1) ndation/saturation. Score one to permanently inundated/satu- arily inundated/saturated (3) enally inundated (2) enally saturated in upper 30cm ge. source (nonstormwater) grading ed/RR track	complex (1)) or dbl check. urated (4)
			weir stormwater in	dredgi	ng	!
8.5	35.5 M	etric 4. Habitat Alt	eration and	Development.		
nax 20 pts.	subtotal 4a.	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	e or double check and	average.		
	4c.	Habitat alteration. Score one or d None or none apparent (9)	ouble check and avera			
[sul	4,5 35,5 botal this page	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cuttir woody debris i	shrub/sherbac sedime gg farming farming	ng	
t revised	1 February 20	01 jim	<u> </u>			

W-BAU-12912-07

Site: AEP THENT- DETALSARE Rat	er(s): 🔑	40 Mc	Date: /2/19/12
SS.S Metric 5. Special Wetla	ands.	7 · · · · · · · · · · · · · · · · · · ·	, ,
0 53.9			
max 10 pts. subtotal Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlar Lake Erie coastal/tributary wetlar Lake Piain Sand Prairies (Oak O Relict Wet Prairies (10) Known occurrence state/federal to Significant migratory songbird/wat Category 1 Wetland. See Questi	nd-unrestricted hy nd-restricted hydr penIngs) (10) threatened or end ater fowl habitat co ion 1 Qualitative	ology (5) dangered species (10) or usage (10) Rating (-10)	
	inities, in	terspersion, microte	opography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Voqetetler	Community Course	
Score all present using 0 to 3 scale.	vegetation 0	Absent or comprises <0 the (0.0	474
Aquatic bed		Absent or comprises <0.1ha (0.2 Present and either comprises sm	471 acres) contiguous area
Z Emergent	•	vegetation and is of moderate	iali part of wetland's
Shrub		significant part but is of low qua	quality, or comprises a
Forest	2	Present and either comprises sig	nificent port of wetler-di-
Mudflats	. –	vegetation and is of moderate	rucity or comprises a secul
Open water		part and is of high quality	quality or comprises a small
Other	3	Present and comprises significan	
6b. horizontal (plan view) Interspersion.	ŭ	vegetation and is of high quality	it part, or more, of wetland's
Select only one.		vegetation and is of high quality	/
High (5)	Narrative I	Description of Vegetation Quality	
Moderately high(4)	low	low spe diversity and/or and and	
Moderate (3)	1044	Low spp diversity and/or predomi	nance of nonnative or
Moderately low (2)	mod	disturbance tolerant native spec	cies
O Low (1)	mod	Native spp are dominant compon	ent of the vegetation,
None (0)		although nonnative and/or distu	rbance tolerant native spp
6c. Coverage of invasive plants. Refer		can also be present, and specie	s diversity moderate to
to Table 1 ORAM long form for list. Add		moderately high, but generally w	w/o presence of rare
or deduct points for coverage	high	threatened or endangered spp	•••
Extensive >75% cover (-5)	nign	A predominance of native species	s, with nonnative spp
Madagate of 7500		and/or disturbance tolerant nativ	e spp absent or virtually
Woderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity a	nd often, but not always,
Nearly absent <5% cover (0)		the presence of rare, threatened	, or endangered spp
Absent (1)	Mudflet	I Ones Metalogical and an	
6d. Microtopography.		Open Water Class Quality	
Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres)	
Vegetated hummucks/tussucks	- 2	Low 0.1 to <1ha (0.247 to 2.47 ac	res)
[1 O	3	Moderate 1 to <4ha (2.47 to 9.88	acres)_
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh		High 4ha (9.88 acres) or more	· · · · · · · · · · · · · · · · · · ·
Amphibian breeding pools	Microton	ranhy Course Sant	
L. J. Antensian arouning pools		raphy Cover Scale	
	0	Absent	
	1	Present very small amounts or if m	nore common
- 1		of marginal quality	
X.0	2	Present in moderate amounts, but	not of highest
N =	3	quality or in small amounts of hig	nest quality
	3	Present in moderate or greater am	ounts
74.51	-	and of highest quality	

Site: /	JEP TI	ENT-DEZHWAILE	Rater(s):	Bho, JA	-	Date:	121912
	(i)	Metric 1. Wetland A	rea (size)				
max 6 pts.	subtotal	Select one 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)	re. 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)				
3	5	Metric 2. Upland bu	ffers and	surround	ing land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. \$ WIDE. Buffers average 50i MEDIUM. Buffers average NARROW. Buffers average YERY NARROW. Buffers average YERY LOW. 2nd growth oi LOW. Old field (>10 years) MODERATELY HIGH. Res HIGH. Urban, industrial, op	m (164ft) or more 25m to <50m (82 e 10m to <25m (3 everage <10m (<3 Select one or d rolder forest, prail , shrub land, your idential, fenced p	around wetland per to 2 to <164ft) around 32ft to <82ft) around s2ft) around wetlan louble check and a rile, savannah, wilding second growth foasture, park, considerations	primeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) orest. (5) eryation tillage, new fallo	ow field. (3)	
11	16	Metric 3. Hydrology			,		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfac Perennial surface water (lal 3c. Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic Recovered (7) Recovering (3) Recent or no recovery (1)	ce water (3) te or stream) (5) ly one and assign (2) cregime. Score Check all distu ditch tile dike weir stormwat	o 3d. n score. 4 one or double chec rbances observed er input	point source (non: filling/grading road bed/RR track dredging other_fown	in (1) ake and othe bland (e.g. fo upland corri uration. Scor ently inundate ed/saturated ated (2) ated in upper stormwater)	rest), complex (1) dor (1) re one or dbl check. ed/saturated (4) l (3)
P	24	Metric 4. Habitat Alt	eration a	nd Develo	pment.		
лах 20 pts.	subtôtal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or of	one and assign	score.		,	
		None or none apparent (9)		rbances observed	Shrub/sapling rem	oval	
	2V	Recovering (3) Recent or no recovery (1)	grazing Clearcutti Selective	cutting ebris removal	herbaceous/aquat sedimentation dredging farming nutrient enrichmer	ic bed remov	ral
ISC LEARSEQ	1 Lebing	y 2001 jjm					

W-BAD-1219/2-03

Site:	ALD	714	N7. Derpunit	Rater(s): /n	o dac	Date: 121912
su	DY btotal first p	7					
0	24	Met	ric 5. Special W	etland	S.		
max 10 pts.	subtotal		all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Prie coastal/tributary Lake Plain Sand Prairies (0 Relict Wet Prairies (10) Known occurrence state/fe Significant migratory songb Category 1 Wetland. See	o) wetland-unre wetland-rest Dak Opening deral threate sird/water for Question 1 0	ricted hydro ris) (10) ened or end rivi habitat or Qualitative F	angered species (10) Usage (10) Rating (-10)	
	25	Wet	ric 6. Plant com	muniti	es, int	erspersion, r	nicrotopography.
max 20 pts.	subtotal	」 6a. We	tland Vegetation Communities	s. ¹	√egetation	Community Cover Sca	sie
		Score a	II present using 0 to 3 scale.	•	0		<0.1ha (0.2471 acres) contiguous area
			Aquatic bed	•	1	Present and either co	mprises small part of wetland's
			Emergent				moderate quality, or comprises a
		3 1	Shrub			significant part but i	
		-	Forest Mudflats		2	Present and either co	mprises significant part of wetland's
			Open water			part and is of high o	moderate quality or comprises a small
			Other	-	3		es significant part, or more, of wetland's
		6b. horl	zontal (plan view) Interspersion	on.	Ū	vegetation and is of	
		Select o	nly one.	-			
			High (5)	1	Narrative D	escription of Vegetation	on Quality
		<u> </u>	Moderately high(4)	_	low	Low spp diversity and	/or predominance of nonnative or
			Moderate (3)	_		disturbance tolerant	native species
			Moderately low (2)		mod	Native spp are domin	ant component of the vegetation,
		, x	Low (1) None (0)			although nonnative	and/or disturbance tolerant native spp
		6c. Cov	erage of invasive plants. Ref	er		moderatoly blob by	, and species diversity moderate to
			1 ORAM long form for list. A			threatened or endar	t generally w/o presence of rare
			ct points for coverage	-	high		ative species, with nonnative spp
		X	Extensive >75% cover (-5)		9		tolerant native spp absent or virtually
		5	Moderate 25-75% cover (-3)		absent, and high sp	p diversity and often, but not always,
			Sparse 5-25% cover (-1)	_		the presence of rare	, threatened, or endangered spp
			Nearly absent <5% cover (0	•			
		Ed Miss	Absent (1)	<u> </u>		Open Water Class Qu	
			rotopography. I present using 0 to 3 scale.	-	0	Absent <0.1ha (0.247	
		Ocore ar	Vegetated hummucks/tussu	icke _	1	Low 0.1 to <1ha (0.24	
		a	Coarse woody debris >15cr		3	Moderate 1 to <4ha (High 4ha (9.88 acres)	
		0	Standing dead >25cm (10in			Trigit 4na (3.00 acres)	or more
		74	Amphibian breeding pools	,	/licrotopog	raphy Cover Scale	
				-	0	Absent	
				-	1		nounts or if more common
_				_		of marginal quality	
AT.					2	Present in moderate a	mounts, but not of highest
				_			nounts of highest quality
					3	Present in moderate o	
75				_		and of highest qualit	у
47							

Site: ACP	TRENT. DOLAWAR Rater(s): BAD, JAC	Date: 121912
00	Metric 1. Wetland Area (size).	
max 6 pts. subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
4 4	Metric 2. Upland buffers and surrounding land us	e.
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (9) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	4) · (1)
11 15	Metric 3. Hydrology.	
max 30 pts. subtotal	/ Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3d. Duration inundation 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) Regularly inu	edplain (1) cam/lake and other human use (1) nd/upland (e.g. forest), complex (1) an or upland corridor (1) saturation. Score one or dbl check. manently inundated/saturated (4) undated/saturated (3)
	Recovering (3) Recent or no recovery (1) Recovering (3) Willing/grading road bed/RR welr dike dredging	
(5)215	Metric 4. Habitat Alteration and Development.	
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5)	
	Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.	
21.5 subtotal this p	Recent or no recovery (1) Recent or no recovery (1) Clearcutting Selective cutting Woody debris removal Toxic pollutants Recent or no recovery (1) Toxic pollutants Sedimentation Gredging Farming nutrient enrice	aquatic bed removal

WETERNO 25

ORAM v. 5.0 Field Form Quantitative Rating

Site: ACP THENT. DILAWING R	ater(s): BAA	JAC	Date: /2.19/2
subtotal first page O 21, 5 Metric 5. Special We	tlands.		1 7 7 5 5 7 7 5
Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary we Lake Erie coastal/tributary we Lake Plain Sand Prairies (Oal Relict Wet Prairies (10) Known occurrence state/feder Significant migratory songbird Category 1 Wetland. See Que	tland-unrestricted hydro tland-restricted hydro c Openings) (10) ral threatened or enda /water fowl habitat or estion 1 Qualitative R	angered species (10) usage (10) ating (-10)	microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Se	cale
Score all present using 0 to 3 scale.	0	Absent or comprise	s <0.1ha (0.2471 acres) contiguous area
Aquatic bed	1	Present and either	comprises small part of wetland's
Emergent		vegetation and is	of moderate quality, or comprises a
Shrub	*** <u> </u>	significant part bu	
Forest	2	Present and either of	comprises significant part of wetland's
Mudflats		vegetation and is	of moderate quality or comprises a small
Open water		part and is of high	quality
Other	3		ses significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is	
Select only one.			
High (5)	Narrative Do	escription of Vegetat	ion Quality
Moderately high(4)	low	Low spp diversity ar	nd/or predominance of nonnative or
Moderate (3) Moderately low (2)		disturbance tolera	nt native species
moderately low (2)	mod	Native spp are dom	nant component of the vegetation,
Low (1)		although nonnative	e and/or disturbance tolerant native spo
None (0)		can also be prese	nt, and species diversity moderate to
6c. Coverage of invasive plants. Refer		moderately high, t	out generally w/o presence of rare
to Table 1 ORAM long form for list. Add		threatened or end	
or deduct points for coverage	high	A predominance of	native species, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance	tolerant native spp absent or virtually
Moderate 25-75% cover (-3)		absent, and high s	pp diversity and often, but not always.
_3 Sparse 5-25% cover (-1)		the presence of ra	re, threatened, or endangered spp
Nearly absent <5% cover (0)			· · · · · · · · · · · · · · · · · · ·
Absent (1)	Mudflat and	Open Water Class Q	uality
6d. Microtopography.	0	Absent <0.1ha (0.24	17 acres)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.2	
Vegetated hummucks/tussucks		Moderate 1 to <4ha	
Coarse woody debris >15cm (6		High 4ha (9.88 acres	
्र Standing dead >25cm (10in) di	bh		
O Amphibian breeding pools	Microtopogr	aphy Cover Scale	
	0	Absent	
	1		mounts or if more common
		of marginal quality	
~ l	2		amounts, but not of highest
1 (_	quality or in small a	amounts of highest quality
-	3	Present in moderate	
10 -	-	and of highest qua	
119.5		, Jg., qua	7

Site: ACP	THENT. DELAWATE Rater(s): BALO, JAC	Date: 12/9/2
		Date: a 1 a
1 1	Metric 1. Wetland Area (size).	
max 6 pts. subtotal	Select one size class and assign score.	
	25 to <50 acres (10.1 to <20.2ha) (5 pts)	
	10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts)	
	0.3 to <3 acres (0.12 to <1.2ha) (2pts)	
	0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
& G	Metric 2. Upland buffers and surrounding land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.	
727	WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)	
	MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)	
	VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average.	
	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)	
	LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallo	w field (2)
	HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w neid. (3)
11 20	Metric 3. Hydrology.	
max 30 pts. subtotal	3a. Sources of Water. Score all that apply. 3b. Connectivity. Score all the state of the state	
	High pH groundwater (5) Other groundwater (3) Between stream/i	In (1) ake and other human use (1)
	Part of wetland/up	pland (e.g. forest), complex (1)
	Perennial surface water (lake or stream) (5) 3d. Duration inundation/satu	upland corridor (1) uration. Score one or dbl check.
	3c. Maximum water depth. Select only one and assign score. Semi- to permane	ently inundated/saturated (4)
	0.4 to 0.7m (15.7 to 27.6ln) (2)	ated (2)
	 <0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double check and average. 	ited in upper 30cm (12in) (1)
	None or none apparent (12) Check all disturbances observed	
	Recovered (7) Recovering (3) ditch tile point source (non:	stormwater)
	Recent or no recovery (1) dike road bed/RR track	(
	weir dredging stormwater input	
7007	Metric 4. Habitat Alteration and Development.	
ti) dt5		
max 20 pts. subtotal	Substrate disturbance. Score one or double check and average. None or none apparent (4)	
a	Recovered (3) Recovering (2)	
	Recent or no recovery (1) 4b. Habitat development. Select only one and assign score.	
	Excellent (7)	
	Very good (6) Good (5)	*
	A Moderately good (4)	
	Fair (3) Poor to fair (2)	
	Poor (1)	
	Habitat alteration. Score one or double check and average. None or none apparent (9) Check all disturbances observed	
	Recovered (6) mowing shrub/sapling rem	
	Recovering (3) grazing herbaceous/aquat	ic bed removal
77.5	selective cutting dredging	
d+1	woody debris removal farming toxic pollutants nutrient enrichmer	nt
subtotal this pa	<u> </u>	
	· / · · · · · · · · · · · · · · · · · ·	

Site:	AEP	TR	FN	T-DEL	AWARE	Rater(s):	KIA) JAC	Date:	121912
51	27 5 ubtotal first p	_] age	_4!	. F 0		18/-41-19	مام				
0	27 5	- -1710	etri	IC 5. 5	peciai	Wetlan	as.				
max 10 pts.	subtotal			Bog (10) Fen (10) Oid growth Mature fore Lake Erie o Lake Plain Relict Wet Known occ Significant Category 1	ested wetland coastal/tribut coastal/tribut Sand Prairie Prairies (10) urrence state migratory so Wetland. S	d (5) ary wetland-ui ary wetland-re as (Oak Openi el/federal threa ngbird/water i ee Question 1	estricted ngs) (10 atened of fowl hab I Qualita	hydrolo)) or endar oitat or u ative Ra	ngered species (10) usage (10) uting (-10)		
-1	26.5	. -Me	etri	c 6. P	lant co	mmuni	ties,	inte	erspersion, microto	pogra	phy.
max 20 pts.	subtotal	ا۔ 6a. \	Wetla	nd Vegetati	on Commun	ities.	Veget	tation C	Community Cover Scale		
				_	g 0 to 3 sca			0	Absent or comprises <0.1ha (0.24	171 acres) o	ontiguous area
		[Aquatic bed	1			1	Present and either comprises small	all part of w	etland's
		٦		Emergent					vegetation and is of moderate q		mprises a
		2	_	Shrub			-		significant part but is of low qua	<u> </u>	
		- 1	_	Forest				2	Present and either comprises sign		
		-		Mudflats					vegetation and is of moderate q	uality or co	mprises a small
				Open water				3	part and is of high quality		
		65 E		Other	iew) Intersp			3	Present and comprises significant		ore, of wetland's
				y one.	iew) intersp	E151011.			vegetation and is of high quality		
		Selec	$\overline{}$	High (5)			Narra	tive De	scription of Vegetation Quality		
			_	Moderately	high(4)			ow	Low spp diversity and/or predomin	nance of no	nnativo or
		ŀ		Moderate (3			•	•••	disturbance tolerant native spec		illiative of
		Ì		Moderately	•		n	nod	Native spp are dominant component		egetation
		0		Low (1)	. ,				although nonnative and/or distu		
			$\overline{\mathbf{x}}$	None (0)					can also be present, and specie		
					sive plants.				moderately high, but generally v		
		to Ta	ıble 1	ORAM long	form for lis	t. Add			threatened or endangered spp		
				points for co			h	igh	A predominance of native species		
			X.	Extensive >	75% cover ((-5)			and/or disturbance tolerant nativ	∕e spp abse	nt or virtually
	_	5			5-75% cove				absent, and high spp diversity a	nd often, bu	ıt not always,
		`			5% cover (-1 ent <5% cov				the presence of rare, threatened	i, or endanç	jered spp
		ŀ		Absent (1)	:11 \3% COV	er (U)	Mudfl	at and	Open Water Class Quality		
		6d N		topography.			Muuli	0	Absent <0.1ha (0.247 acres)		
					g 0 to 3 scal	e		1	Low 0.1 to <1ha (0.247 to 2.47 ac	reel	
		Γ	_		nummucks/ti			2	Moderate 1 to <4ha (2.47 to 9.88		
		\ \frac{1}{2}		_	dy debris >			3	High 4ha (9.88 acres) or more	401007	
		2	_		ead >25cm (
		- [Amphibian I	breeding po	ols	Micro	topogr	aphy Cover Scale		
			_					0	Absent		
								1	Present very small amounts or if r	nore comm	on
	1								of marginal quality		
ATEFOR	w L							2	Present in moderate amounts, but		
METUN	7/								quality or in small amounts of hi		у
1	ı '							3	Present in moderate or greater an	nounts	-
12/									and of highest quality		
6.07											

Site:	AED	TRENT-DELHINAL Rater(s): BAO IC Date:	121812
		7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	VIDIA
2	2	Metric 1. Wetland Area (size).	
max 6 pts.	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	
-	^	(0.1 acres (0.04ha) (0 pts)Metric 2. Upland buffers and surrounding land use.	
+	<u>J</u>		
max 14 pts.	sublolal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
12	21	Metric 3. Hydrology.	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennlal surface water (lake or stream) (5) 3d. Duration Inundation/saturation. Score. Semi- to permanently inundated/saturated in upper seasonally inundated (2) Seasonally inundated (2) Seasonally saturated in upper seasonally saturated	forest), complex (1) ridor (1) ore one or dbl check. ted/saturated (4) d (3)
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) None or none apparent (12) Check all disturbances observed ditch tile dike dike weir stormwater input other other	· ·
9.5	30.5	Metric 4. Habitat Alteration and Development.	
max 20 pts.		As. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	
		#b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4)	
		Fair (3) Poor to fair (2) Poor (1) C. Habitat alteration. Score one or double check and average.	
Г	15	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) None or none apparent (9) Recovering (3) Recent or no recovery (1) Check all disturbances observed mowing grazing herbaceous/aquatic bed removed herbaceous/aquatic bed removed sedimentation dredging	oval
subf	30,5 lotal this pa	woody debris removal farming toxic pollutants nutrient enrichment	
last revised 1	Februar	2001 jjm	2

W-BAD BB12-04

Site:			- DELAWARE	Rater(s): 134	P, JAC	Date: 12/8/2
	-/-	7					
sı	30, 5 ubtotal first pa		. F. Charlell	Metlons	ls.		
0	30.5		c 5. Special \		13.		
max 10 pts.	subtotal		that apply and score as i	Indicated.			
			Bog (10) Fen (10)				
			Old growth forest (10)				
			Mature forested wetland	l (5)		Junto (40)	
		_	Lake Erie coastal/tributa Lake Erie coastal/tributa	iry wetland-un	restricted hydro	logy (10)	
			Lake Plain Sand Prairie	s (Oak Openin	gs) (10)	.09) (0)	
			Relict Wet Prairies (10)				
			Known occurrence state	e/federal threa	ened or end	angered species (10)	
			Significant migratory so Category 1 Wetland. Se	ngbird/water fo	owl habitat of	usage (10)	
	1	الماء الما					tonography
น	34.5	Metri	ic 6. Plant co	mmunii	ies, ini	erspersion, micro	otopograpny.
- 1			d Vosetation Commun	ities	Vegetation	Community Cover Scale	59 %
max 20 pts.	subtotal		and Vegetation Commun present using 0 to 3 scal		0	Absent or comprises <0.1ha	(0.2471 acres) contiguous area
			Aquatic bed		1	Present and either comprises	small part of wetland's
		् इ	Emergent			vegetation and is of modera	
		9	Shrub		2	significant part but is of low Present and either comprises	
			Forest Mudflats		-		ate quality or comprises a small
			Open water			part and is of high quality	
			Other		3		icant part, or more, of wetland's
			ontal (plan view) Intersp	ersion.		vegetation and is of high qu	Janty
		Select on	lly one.]High (5)		Narrative I	Description of Vegetation Quai	ity
			Moderately high(4)		low	Low spp diversity and/or pred	
			Moderate (3)			disturbance tolerant native	
		-	Moderately low (2) Low (1)		mod	Native spp are dominant con although nonnative and/or	disturbance tolerant native spp
		X	None (0)			_	pecies diversity moderate to
		6c. Cove	erage of invasive plants.			moderately high, but gener	
			1 ORAM long form for lis	st. Add	la? mla	threatened or endangered A predominance of native sp	
		or deduc	t points for coverage Extensive >75% cover	(-5)	high	1 .	native spp absent or virtually
			Moderate 25-75% cover			absent, and high spp diver	sity and often, but not always,
		-1 4	Sparse 5-25% cover (-	1)		the presence of rare, threa	tened, or endangered spp
		į ,	Nearly absent <5% cov	/er (0)	Manual Plant and	d Open Water Class Quality	
		Ed Micr	Absent (1) otopography.		0	Absent <0.1ha (0.247 acres	<u>) </u>
			present using 0 to 3 sca	ale.	1	Low 0.1 to <1ha (0.247 to 2.	
			Vegetated hummucks/	tussucks	2	Moderate 1 to <4ha (2.47 to	
		3	Coarse woody debris >		3	High 4ha (9.88 acres) or mo	re
		3 -	Standing dead >25cm Amphibian breeding po		Microtopo	graphy Cover Scale	
			Tymphiblan preeding by	3013	0	Absent	
					1	Present very small amounts of marginal quality	or if more common
Z 2					2	Present in moderate amount quality or in small amounts	
T. Q					3	Present in moderate or grea	
	7					and of highest quality	
34.5							

Site:	AEP	TRENT-1	DERWINNE	Rater(s):	BAU, VAC		Date: Alsız
	R	Metric '	1. Wetland A	rea (size).	Ø,	
2		<u>.</u>		·	•		
max 6 pts.	subtotal		ze class and assign sco) acres (>20.2ha) (6 pts				
			to <50 acres (10.1 to <2 to <25 acres (4 to <10.1				
		3 to	<10 acres (1.2 to <4ha) (3 pts)			
			to <3 acres (0.12 to <1. to <0.3 acres (0.04 to <				
		_,<0.	1 acres (0.04ha) (0 pts)	, , , ,			
3	5		2. Upland bu			_	
max 14 pts.	subtotal	2a. Calculate	average buffer width. 3 DE. Buffers average 50	Select only one a m (164ft) or more	and assign score. D e around wetland pe	o not double check. rimeter (7)	
		,MEI	DIUM. Buffers average RROW. Buffers averag	25m to <50m (8	2 to <164ft) around	wetland perimeter (4)	
		' L VEF	RY NARROW. Buffers:	average <10m (<	32ft) around wetlan	d perimeter (0)	
		2b. intensity of	of surrounding land use RY LOW. 2nd growth o	. Select one or r older forest, pra	double check and av airie, savannah, wild	/erage. life area. etc. (7)	
		LOV	V. Old field (>10 years)	, shrub land, you	ing second growth f	orest. (5) ervation tillage, new fallo	
		, Г≍∫HiG	H. Urban, industrial, or	en pasture, row	cropping, mining, co	onstruction. (1)	W field. (3)
16	21	Metric 3	3. Hydrology	7.			
max 30 pts.	subtotal		of Water. Score all that n pH groundwater (5)	apply.	3b.	Connectivity. Score all	
		Oth	er groundwater (3)		ı	100 year floodpla Between stream/	ake and other human use (1)
			cipitation (1) sonal/intermittent surfa	ce water (3)	•	Part of wetland/u	pland (e.g. forest), complex (1)
		7 Pere	ennial surface water (lal water depth. Select or	ke or stream) (5)	3d.	Duration inundation/sat	uration. Score one or dbl check.
		>0.7	7 (27.6in) (3)		gri score. 3	Regularly inunda	ently inundated/saturated (4) ted/saturated (3)
			to 0.7m (15.7 to 27.6in) lm (<15.7in) (1)	(2)	J	Seasonally inund	ated (2) ated in upper 30cm (12in) (1)
		3e. Modification	ons to natural hydrologi		one or double chec	k and average.	100 III appor 000III (12III) (1)
			e or none apparent (12 overed (7)	Check all dist	urbances observed	point source (non	stormwater)
		Rec	overing (3)	tile dike		filling/grading	8 '
		[] Nec	ent or no recovery (1)	weir		road bed/RR trac	K .
		1			ater input	> other WIN K	OW.
10.5	31,5	Metric 4	4. Habitat Al	teration a	and Develo	pment.	
max 20 pts.	subtotal		disturbance. Score on e or none apparent (4)	e or double chec	ck and average.		
		₹ 😾 Rec	overed (3)				
			overing (2) ent or no recovery (1)				
		4b. Habitat de	evelopment. Select only ellent (7)	one and assigr	score.		
		Very	y good (6)				
			od (5) Jerately good (4)		12		
		√ Fair					
		Poo	r (1)				
			teration. Score one or				
		U 5 X Rec	e or none apparent (9) overed (6)	Check all dist	urbances observed	shrub/sapling rem	
		. LAINEC	overing (3) ent or no recovery (1)	grazing Clearcut	tina	herbaceous/aqua	tic bed removal
l	71 1]	2 0. 110 10001017 (1)	selectiv	e cutting	dredging	
	91.9			woody of toxic po	debris removal Ilutants	farming nutrient enrichme	nt
	1 Februs	•					
1St revised	reprua	ıry 2001 jjm					

Site: ACP TI	KNT-DEZAWARE	Rater(s): BH	20, Unc	Date: 12/18/12
31. subtotal firs	The Metric 5 Special W	letlands.		
max 10 pts. sublot		licated.		
	Bog (10)			
	Fen (10)			
	Old growth forest (10)	Ξ\		
	Mature forested wetland (wetland-unrestricted hyd	rology (10)	
	Lake Erie coastai/tributary	wetland-restricted hydrol	logy (5)	
	Lake Plain Sand Prairies (Oak Openings) (10)		
	Relict Wet Prairies (10)			
	Known occurrence state/fe	ederal threatened or enda	ingered species (10)	
	Significant mlgratory song	bird/water fowl habitat or	usage (10)	
	Category 1 Wetland. See			
2 33.				rotopograpny.
max 20 pts. subtot			Community Cover Scale	- (0.0474) continuous arr
	Score all present using 0 to 3 scale.	01	Present and either comprise	a (0.2471 acres) contiguous are
	Aquatic bed	'		erate quality, or comprises a
	Emergent Shrub		significant part but is of it	The state of the s
	Forest	2		ses significant part of wetland's
	Mudflats		vegetation and is of mod	erate quality or comprises a sm
	Open water		part and is of high quality	1.4 -
	Other	3	Present and comprises sig	nificant part, or more, of wetlan
	6b. horizontal (plan view) Interspers	sion.	vegetation and is of high	quality
	Select only one.	A1		111
	High (5)	Narrative L	escription of Vegetation Qu	redominance of nonnative or
	Moderately high(4)	IOW	disturbance tolerant nativ	
	Moderate (3) Moderately low (2)	mod		omponent of the vegetation,
	Low (1)	11104		or disturbance tolerant native sp
	None (0)			I species diversity moderate to
	6c. Coverage of invasive plants. R	efer		nerally w/o presence of rare
	to Table 1 ORAM long form for list.		threatened or endangere	
	or deduct points for coverage	high		species, with nonnative spp
	Extensive >75% cover (-5			ant native spp absent or virtually ersity and often, but not always
	Moderate 25-75% cover ((-3)		eatened, or endangered spp
	Sparse 5-25% cover (-1) Nearly absent <5% cover	-(0)	the presence of fate, un	
	Absent (1)		d Open Water Class Quality	,
	6d. Microtopography.	0	Absent <0.1ha (0.247 acr	
	Score all present using 0 to 3 scale	. 1	Low 0.1 to <1ha (0.247 to	2.47 acres)
	Vegetated hummucks/tus		Moderate 1 to <4ha (2.47	
	Coarse woody debris >15		High 4ha (9.88 acres) or n	nore
	2 Standing dead >25cm (1)		muambre Carran Caala	
	Amphibian breeding pool		graphy Cover Scale	
		0	Absent Present very small amount	ts or if more common
		1.	of marginal quality	OF IT THOSE COMMINEN
- 1		2	Present in moderate amou	unts, but not of highest
.2		-	quality or in small amou	
,		3	Present in moderate or gr	eater amounts
			and of highest quality	

Site: ACP TRENT-D	OFLAWARE	Rater(s):	BAO JAC	Date: /2/8/	
Met	tric 1. Wetland A	rea (size).	•	, , , ,	
		• ,			
max 6 pts. subtotal Select	one size class and assign scor >50 acres (>20.2ha) (6 pts)				
	25 to <50 acres (10,1 to <2	0.2ha) (5 pts)			
7	10 to <25 acres (4 to <10.1	ha) (4 pts)			
-	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 <	0.12ha) (1 pt)			
Mot	<0.1 acres (0.04ha) (0 pts)	ffore and a		and and see	
3 3	ric 2. Upland bu	ileis and si	ırroundii	ng land use.	
	alculate average buffer width.	Select only one and a	ssian score. Do	not double check	
	WIDE. Buffers average 50r	n (164ft) or more aro	and wetland peri	meter (7)	
-	MEDIUM. Buffers average NARROW. Buffers average	25m to <50m (82 to <	164ft) around w	/etland perimeter (4)	
	✓VERY NARROW. Buffers a	verage <10m (<32ft)	around wetland	perimeter (0)	
2b. Int	tensity of surrounding land use. VERY LOW. 2nd growth or	Select one or doub	e check and ave	erage.	
	[LOW. Old field (>10 years)	, shrub land, voung s	econd arowth for	rest. (5)	
≥	MODERATELY HIGH. Res	idential, fenced pastı	re, park, conser	vation tillage, new fallow field, (3)	
Met.	HIGH. Urban, industrial, op		oing, mining, cor	astruction. (1)	
11 14	ile 3. Hydrology				
max 30 pts. subtotal 3a. So	ources of Water. Score all that	apply.	3b. C	Connectivity. Score all that apply.	
	High pH groundwater (5)		<u>[</u>	100 year floodplain (1)	
1	Other groundwater (3) Precipitation (1)		}	Between stream/lake and other human Part of wetland/upland (e.g. forest), cor	use (1)
' 💆	Seasonal/Intermittent surfac		į	Part of riparian or upland corridor (1)	
3c Ma] Perennial surface water (lak eximum water depth. Select on		3d. D	Ouration inundation/saturation. Score one or Semi- to permanently inundated/satura	dbl check.
	>0.7 (27.6in) (3)	_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Regularly inundated/saturated (3)	atea (4)
	0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	(2)	ŀ	Seasonally inundated (2)	o:
	odifications to natural hydrologic	regime. Score one	or double check	Seasonally saturated in upper 30cm (1 and average.	2in) (1)
7	None or none apparent (12)		ces observed		
\ _*F	Recovered (7) Recovering (3)	ditch tile	-	point source (nonstormwater) filling/grading	
\	Recent or no recovery (1)	dike	ľ	road bed/RR track	
Y		weir stormwater ir	nut	dredging	
	4 11 124 4 3614			other	
75 21.5 Met	ric 4. Habitat Alt	eration and	Develop	oment.	
max 20 pts. subtotal 4a. Sul	bstrate disturbance. Score one	or double check and	l average.		
	None or none apparent (4) (1) Recovered (3)				
25 🗓	Recovering (2)				
4b Hal	Recent or no recovery (1) <u>bit</u> at development. Select only	one and assign scor			
	Excellent (7)	one and assign soon	5.		
	Very good (6) Good (5)				
ર 🗖	Moderately good (4)				
	Fair (3) Poor to fair (2)				
1	Poor (1)				
4c. Hal	bitat alteration. Score one or d	ouble check and ave	rage.		
₂ F	None or none apparent (9)	Check all disturbar	ces observed	Selection in the second	
3	Recovered (6) Recovering (3)	mowing grazing	}	shrub/sapling removal herbaceous/aquatic bed removal	
	Recent or no recovery (1)	clearcutting		sedimentation	
131<		selective cutt		dredging farming	
0'.)		toxic pollutan	-	nutrient enrichment	
subtotal this page last revised 1 February 2001 j	ljm				

WETLAND 29
ORAM v. 5.0 Field Form Quantitative Rating

W-BAO-121812-02

Site:	HER T	Over 17	- DELAWARE F	Rater(s):	BN	O, JAC	Date: /218/2
		11 12 13 1	FCCCCO COD				1200. 121812
	21.5						
	Itotal first page						
		Met	ric 5. Special We	tlands			
0	215		TO O. Opecial ave	tiulius.			
ax 10 pts.		heck a	II that apply and score as indica	ited.			
			Bog (10)				
		-	Fen (10)				
			Old growth forest (10) Mature forested wetland (5)				
			Lake Erie coastal/trlbutary we	tland-unrestric	cted hyd	rology (10)	
			Lake Erie coastal/tributary we	tland-restricte	d hydrok	ogy (5)	
			Lake Plain Sand Prairies (Oal	k Openings) (1	10)		
		<u> </u>	Relict Wet Prairies (10)	!			
		\vdash	Known occurrence state/fede Significant migratory songbird	ai inreatened /water fowl ha	or endar or enda	ngered species (10)	
			Category 1 Wetland. See Qu	estion 1 Quali	tative Ra	ating (-10)	
<u></u>		Vletr	ic 6. Plant comn				icrotopography
4.5	2451				,	ropersion, in	nerotopograpity.
x 20 pts.			and Vegetation Communities.	Vege	etation (Community Cover Scale	e ,*.
	S	core all	present using 0 to 3 scale.		0	Absent or comprises <	0.1ha (0.2471 acres) contiguous area
		-	Aquatic bed Emergent		1	Present and either com	nprises small part of wetland's
	2	10	Shrub			vegetation and is of r	moderate quality, or comprises a
	Ø	\ 	Forest		2	significant part but is	or low quality oprises significant part of wetland's
			Mudflats			vegetation and is of r	moderate quality or comprises a small
			Open water			part and is of high qu	ality
	66	horiz	Otherontal (plan view) Interspersion.		3		significant part, or more, of wetland's
		elect on				vegetation and is of h	ligh quality
			High (5)	Narra	ative De	scription of Vegetation	Quality
			Moderately high(4)		low	Low spp diversity and/o	or predominance of nonnative or
	0		Moderate (3) Moderately low (2)			disturbance tolerant r	native species
	U	-	Low (1)	r	mod	Native spp are dominar	nt component of the vegetation,
		X	None (0)			can also be present a	nd/or disturbance tolerant native spp and species diversity moderate to
	- 6c	. Cove	rage of invasive plants. Refer			moderately high, but	generally w/o presence of rare
			ORAM long form for list. Add			threatened or endang	pered spp
	Ol	dedact	points for coverage Extensive >75% cover (-5)	ŀ	high	A predominance of nati	ve species, with nonnative spp
			Moderate 25-75% cover (-3)		ļ.	and/or disturbance tol	lerant native spp absent or virtually diversity and often, but not always,
	6		Sparse 5-25% cover (-1)			the presence of rare,	threatened, or endangered spp
	C	/ /	Nearly absent <5% cover (0)				
	64	Micro	Absent (1) topography.	Mudf		Open Water Class Qual	
			present using 0 to 3 scale.		1	Absent <0.1ha (0.247 a Low 0.1 to <1ha (0.247	
			Vegetated hummucks/tussucks	3	2	Moderate 1 to <4ha (2.	47 to 9.88 acres)
	- 1		Coarse woody debris >15cm (6	3in)	3	High 4ha (9.88 acres) o	
	·		Standing dead >25cm (10in) d				
		Ш	Amphibian breeding pools		7	phy Cover Scale	
						Absent Present very small amou	Linto or if more
= 4					.	of marginal quality	unts of it more common
-					2		ounts, but not of highest
ti						quality or in small amo	ounts of highest quality
					3	Present In moderate or	greater amounts
, I						and of highest quality	

	d to the Quantitative (Valley	T	V 17/19	1010.0 01
Site: At p	THENT-VINSTEL	Rater(s): BAO	t	Date: 12/8/2
.\	Metric 1. Wetland	Area (size).		i b
max 6 pts. subto	>50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10 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 <0.1 acres (0.04ha) (0 pt	ts) <20.2ha) (5 pts) 0.1ha) (4 pts) ha) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt) s)		
11.17	Metric 2. Upland b	uffers and surro	unding land use	} .
max 14 pts. subtot	WIDE. Buffers average & MEDIUM. Buffers average & NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth LOW. Old field (>10 year	60m (164ft) or more around wage 25m to <50m (82 to <164ft) age 10m to <25m (32ft to <82 s average <10m (<32ft) arounder. Select one or double cher or older forest, prairie, savantes), shrub land, young secondesidential, fenced pasture, pa	etland perimeter (7) around Wetland perimeter (4) ft) around wetland perimeter (1) d wetland perimeter (0) ck and average. nah, wildlife area, etc. (7) growth forest. (5) rk. conservation tillage, new fa	
10 13	Metric 3. Hydrolog			
max 30 pts. subtota	al 3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1)	at apply.	3b. Connectivity. Score a 100 year floody Between stream	ill that apply. Ilain (1) n/lake and other human use (1) /upland (e.g. forest), complex (1)
	Seasonal/Intermittent sur Perennial surface water (i 3c. Maximum water depth. Select >0.7 (27.6in) (3)	ake or stream) (5) only one and assign score.	Part of riparian 3d. Duration inundation/sa Semi- to perma	adjunt (e.g. tolest), complex (1) or upland corridor (1) aturation. Score one or dbl check. nently inundated/saturated (4) lated/saturated (3)
	0.4 to 0.7m (15.7 to 27.6ii		Seasonally inur	
	3e. Modifications to natural hydrolo None or none apparent (1	gic regime. Score one or dou 2) Check all disturbances of	ble check and average.	
	Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir	point source (no	´ ∦
	Motric / Habitat A	stormwater input	other	
10 2	Metric 4. Habitat A		-	
max 20 pts. subtota	None or none apparent (4	ne or double check and avera)	ge.	
•	2.5 Recovered (3) Recovering (2)			
	Recent or no recovery (1) 4b. Habitat development. Select or	nly one and assign score.		
	Excellent (7) Very good (6) Good (5)			
	Good (5) Moderately good (4) Falr (3)			
	Poor to fair (2) Poor (1)			
	4c. Habitat alteration. Score one of None or none apparent (9		- Lounce	8
(116/11)	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting	shrub/sapling re herbaceous/aqu sedimentation	emoval latic bed removal
2	2	selective cutting woody debris remove toxic pollutants	dredging farming nutrient enrichm	ent
subtotal this last revised 1 Febru	· -			

Site: -	HEP	Tre	ent-Delainare	Rater(s): DHO.	力	118/112
SI	22 ubtotal first		letric 5. Special V	Vetland	/s.		
max 10 pts.	subtota	디 _{Ch}	eck all that apply and score as ir	ndicated.			
			Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/sisignificant migratory song	(5) y wetland-unre y wetland-rest (Oak Opening federal threate gbird/water fow	tricted hydrologs) (10) ened or endar wl habitat or u	ogy (5) Ogered species (10) Usage (10)	
5	2	M				erspersion, microtopography	/-
max 20 pts.	subtotal	ou.	Wetland Vegetation Communiti	_	Vegetation C	Community Cover Scale	
		Sco	re all present using 0 to 3 scale. Aguatic bed	-	0	Absent or comprises <0.1ha (0.2471 acres) contigu	ous area
		- 7	Emergent 2 Shrub		1	Present and either comprises small part of wetland' vegetation and is of moderate quality, or comprise significant part but is of low quality	s es a
		7	Forest	•	2	Present and either comprises significant part of wet	land's
			Mudflats			vegetation and is of moderate quality or comprise	s a small
			Open water Other	_		part and is of high quality	
		6b.	horizontal (plan view) Interspers	— sion.	3	Present and comprises significant part, or more, of vegetation and is of high quality	wetland's
			ect only one.	-		vegetation and is of high quality	
			Hlgh (5)	<u>!</u>	Narrative De	scription of Vegetation Quality	
			Moderately hlgh(4)	_	low	Low spp diversity and/or predominance of nonnative	e or
		D	Moderate (3) Moderately low (2)	_		disturbance tolerant native species	
		V	Low (1)		mod	Native spp are dominant component of the vegetation	חכ,
			None (0)			although nonnative and/or disturbance tolerant na can also be present, and species diversity modera	tive spp
			Coverage of invasive plants. Re			moderately high, but generally w/o presence of rai	re
			able 1 ORAM long form for list.	Add _		threatened or endangered spp	
		or d	educt points for coverage		high	A predominance of native species, with nonnative s	
			Extensive >75% cover (-5 Moderate 25-75% cover (-			and/or disturbance tolerant native spp absent or vi	irtually
		1	Sparse 5-25% cover (-1)	0,		absent, and high spp diversity and often, but not a the presence of rare, threatened, or endangered s	lways,
			Nearly absent <5% cover	(0)		The production of tallog all odd float, of critical generals	pp
			Absent (1)	V	/ludflat and (Open Water Class Quality	
			Microtopography. e all present using 0 to 3 scale.	_	0	Absent <0.1ha (0.247 acres)	
		300	Vegetated hummucks/tuss	eucke -	1 2	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		2	Coarse woody debris >15	cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more	
		-	Standing dead >25cm (10	in) dbh 💆			
			Amphibian breeding pools	<u>N</u>	/licrotopogra	phy Cover Scale	
				_	0	Absent	-
					1	Present very small amounts or if more common of marginal quality	
	7			***	2	Present in moderate amounts, but not of highest	-
_atego	-4" L	-				quality or in small amounts of highest quality	
	1			-	3	Present in moderate or greater amounts	•

Site: AND T	TENT DELAWARE Rater(s): BAO JAC	Date: ∂ 7 ∂
00	Metric 1. Wetland Area (size).	
max 6 pts. sublotel	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
199	Metric 2. Upland buffers and surrounding land u	ise.
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check the control of the co	r (4) ter (1)
9 18	Metric 3. Hydrology.	
max 30 pts. subtotal	Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennlal surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Between st Part of wet Part of wet Part of ripa Sem!- to pe Sem!- to pe Regularly in Seasonally	ore all that apply. oodplain (1) tream/lake and other human use (1) land/upland (e.g. forest), complex (1) irlan or upland corridor (1) on/saturation. Score one or dbl check. ermanently inundated/saturated (4) nundated/saturated (3) r inundated (2) r saturated in upper 30cm (12in) (1)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Check all disturbances observed	
75 25.5	Metric 4. Habitat Alteration and Development.	
၁	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	
	4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Check all disturbances observed	
25,5 subtotal this pag last revised 1 February	Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4)	s/aquatic bed removal ion

WETLAND 3/ ORAM v. 5.0 Field Form Quantitative Rating

W-BAD-121712-64

Site: AEP	THENT- DELAWARE Rate	r(s): 15/1	o VAC Date: 12/7/2
25.5			
subtotal firs	t page		
		ada	
0 05.	Metric 5. Special Wetlar	105.	
max 10 pts. subtot			
	Bog (10)		
	Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5)		
	Lake Erie coastal/tributary wetland-	unrestricted hyd	drology (10)
	Lake Erie coastal/tributary wetland-		logy (5)
	Lake Plain Sand Prairies (Oak Ope	nings) (10)	
	Relict Wet Prairies (10)		
	Known occurrence state/federal thro		
	Significant migratory songbird/water		
	Category 1 Wetland. See Question		
1 211	Metric 6. Plant commun	ıities, int	erspersion, microtopography.
1 09.0			
max 20 pts. subtota	ou. Would regetation commentation.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	/ Shrub Forest		significant part but is of low quality
	Mudflats	2	Present and either comprises significant part of wetland
	Open water		vegetation and is of moderate quality or comprises a s part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetla
	6b. horizontal (plan view) Interspersion.	Ü	vegetation and is of high quality
	Select only one.		
	High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	O Low (1)		although nonnative and/or disturbance tolerant native
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare
	or deduct points for coverage	- high	threatened or endangered spp
	Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp
			and/or disturbance tolerant native spp absent or virtua absent, and high spp diversity and often, but not alway
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		The production of the production of the brighted app
	Absent (1)	Mudflat and	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 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh	• • •	
			raphy Cover Scale
	Amphibian breeding pools		Absent
	Amphibian breeding pools	0	
J	Lancard C	1	Present very small amounts or if more common
12011 L	Lancard C	1	Present very small amounts or if more common of marginal quality
FORYI	Lancard C		Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest
tory1	Lancard C	2	Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality
70M1	Lancard C	1	Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest

Site: AND TOWNT-	DEZAWARE	Rater(s):	BAD, IA	W 1)140101	Date: /2/17/	/12
	DE DELO-TH-C	1.500.	1)110,017C	-	Date. 14/ 4/	12
0 0 Meti	ric 1. Wetland A	rea (size)	•			
	one size class and assign scor >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 <) 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)				
1 1 Metr	ric 2. Upland bu	ffers and	surroundi	ing land use.		
2b. Inte	culate average buffer width. S WIDE. Buffers average 50r MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res	m (164ft) or more 25m to <50m (82 e 10m to <50m (82 e 10m to <25m (3 exerage <10m (<3 Select one or do older forest, prain, shrub land, your idential, fenced possible (160 forest)	around wetland pe to <164ft) around :2ft to <82ft) aroun 2ft) around wetlan puble check and av ie, savannah, wild g second growth f asture, park, cons	erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) orest. (5) ervation tillage, new falk	ow fleid. (3)	
l Metr	ic 3. Hydrology		ropping, mining, co	Bristruction. (1)		
max 30 pts, subtotal 3a. Sou	rces of Water. Score all that a	apply.	3b.	Connectivity. Score all		
4 ×	Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfac Perennial surface water (lak	e or stream) (5)	/ 3d.	Between stream/ Part of wetland/u Part of riparian of Duration Inundation/sat	lake and other human pland (e.g. forest), con r upland corridor (1) uration. Score one or	nplex (1)
1 =	dmum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	(2)	score.	Seml- to permand Regularly inunda Seasonally inunda Seasonally saturi	ently Inundated/saturat ted/saturated (3)	ted (4)
3e. Mod	Iffications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)		bances observed	point source (nor filling/grading road bed/RR tracdredging other Rou	sk	
1.5 28.5 Metr	ic 4. Habitat Alt	eration a	nd Develo	pment.		
	strate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2)		and average.			
4b. Habi	Recent or no recovery (1) itat development. Select only Excellent (7) Very good (6) Good (5)	one and assign s	core.			
2 X 4c. Habi	Moderately good (4) Fair (3) Poor to fair (2) Poor (1) itat alteration. Score one or d	ouble check and	average.			
3	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all distur mowing grazing clearcuttlr selective		shrub/sapling rem herbaceous/aqua sedimentation dredging		
28.5 subtotal this page			bris removal	farming nutrient enrichme	nt	
last revised 1 February 2001 jjn	m					

WETCHND 32

W-BAD121712-05

Site: AEP THENT- DELAWARE Rater	s): B	AO, JAC	Date: 12/7/2
wubtotal first page O 36.5 Metric 5. Special Wetland	ds.		
max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ur Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openii Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water for Category 1 Wetland. See Question 1 Metric 6. Plant communi	estricted hydrologs) (10) atened or enda fowl habitat or a l Qualitative Ra	ngered species (10) usage (10) ating (-10)	otopography.
[09.0]		•	stopograpity.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	0.0474
Score all present using 0 to 3 scale. Aquatic bed	0	Present and either comprises	(0.2471 acres) contiguous area
a Emergent	'	vegetation and Is of modera	•
		significant part but is of low	
2 Shrub Forest	2	Present and either comprises	
Mudflats	-		ite quality or comprises a small
Open water		part and is of high quality	ite quality of comprises a small
Other	3		cant part, or more, of wetland's
6b. horizontal (plan view) Interspersion.	3		
Select only one.		vegetation and is of high qu	ality
High (5)	Marrathyo Do	escription of Vegetation Overli	4
Moderately high(4)		escription of Vegetation Quali	
Moderate (3)	low	Low spp diversity and/or pred	
Moderately low (2)	mad	disturbance tolerant native s	
/ hamana	mod	Native spp are dominant com	
/ Low (1) None (0)			listurbance tolerant native spp
` ` '		can also be present, and sp	-
6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but genera	• •
or deduct points for coverage	biala	threatened or endangered s	
Extensive >75% cover (-5)	high	A predominance of native spe	•••
✓ Moderate 25-75% cover (-3)			native spp absent or virtually
-3 Sparse 5-25% cover (-3)			ity and often, but not always,
Nearly absent <5% cover (0)		the presence of rare, threate	ened, or endangered spp
Absent (1)	Mudflet and	Onen Weter Class Coulity	
6d. Microtopography.		Open Water Class Quality	
Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres)	7
Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.4	
Coarse woody debris >15cm (6in)	2	Moderate 1 to <4ha (2.47 to 9	
		High 4ha (9.88 acres) or more	
Standing dead >25cm (10ln) dbh / Amphibian breeding pools	Mioretone	anhy Cours Socia	
Tampinuan preeding pools		aphy Cover Scale	
	0	Absent	
	1	Present very small amounts o	r it more common
-1-		of marginal quality	
	2	Present In moderate amounts	
		quality or in small amounts of	
	3	Present in moderate or greate	er amounts

TRENT-DEZAWAME	Rater(s): BAO, JAC	Date: /a/z//a
		Top year
Metric 1. Wetland	Area (size).	
>50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <10.) 1.0 to <0.3 acres (0.04 to <0.00)	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)	
Metric 2. Upland bu	ıffers and surrounding l	and use.
WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Om (164ft) or more around wetland perimeter a 25m to <50m (82 to <164ft) around wetland per 10m to <25m (32ft to <82ft) around wetlar average <10m (<32ft) around wetlar average <10m (<32ft) around wetland perime. Select one or double check and average. or older forest, prairie, savannah, wildlife area), shrub land, young second growth forest. (5 sidential, fenced pasture, park, conservation	(7) perimeter (4) nd perimeter (1) eter (0) eter (7) tillage, new fallow field (3)
		ion. (1)
High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surfate Perennial surface water (late) 3c. Maximum water depth. Select of 20.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12) Recovered (7) Recovering (3)	ce water (3) ke or stream) (5) Nly one and assign score. 3d. Duration Sign score. (2) Check all disturbances observed All of the check and a stream of the check and a strea	oint source (nonstormwater) lling/grading
<u> </u>	weir d d stormwater input	redging ther
4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	double check and average. double check and average. Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal	hrub/sapling removal erbaceous/aquatic bed removal edimentation redging arming utrient enrichment
	Select one size class and assign sco >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <10 to <10 to <25 acres (4 to <10.3 to <10 acres (0.04 to <0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts) Metric 2. Upland but	Metric 1. Wetland Area (size). Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (0.12 to <1.2ha) (2 pts) 3 to <10 acres (0.12 to <1.2ha) (2 pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding I 2a. Calculate average buffer width. Select only one and assign score. Do not de WIDE. Buffers average 50m (164ft) or more around wetland perimeter MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter MEDIUM. Buffers average 210m (<32ft) around wetland perimeter MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland vetral

WETT-AND 33 DRAM v. 5.0 Field Form Quantitative Rating

W-BAO-121712-06

Site: AEP TRENT DELAWARD Rater	(s): //	AO, JAC	Date: /2/7/2
Subtotal first page O 21 Metric 5. Special Wetlar	nds.		
max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-Lake Erie coastal/tributary wetland-Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydr nings) (10) eatened or end fowl habitat o 1 Qualitative i	dangered species (10) r usage (10) Rating (-10)	
$ \mathcal{R} $ $ \mathcal{R} $ Metric 6. Plant commun	ities, in	terspersion, microt	opography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	1937
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0,2	471 acres) contiguous area
Aquatic bed	1	Present and either comprises sn	nall part of wetland's
Emergent		vegetation and is of moderate	quality, or comprises a
2 / Shrub		slgnificant part but is of low qui	ality
Forest	2	Present and either comprises sig	Inlficant part of wetland's
Mudflats		vegetation and is of moderate	quality or comprises a small
Open water		part and is of high quality	
Other	3	Present and comprises significant	nt part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is of high qualit	
Select only one.			
High (5)	Narrative [Description of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predom	inance of nonnative or
Moderate (3)		disturbance tolerant native spe	cies
Moderately low (2)	mod	Native spp are dominant compor	ent of the vegetation.
Low (1)		although nonnative and/or disti	irbance tolerant native spp
None (0)		can also be present, and speci-	es diversity moderate to
6c. Coverage of invasive plants. Refer		moderately high, but generally	w/o presence of rare
to Table 1 ORAM long form for list. Add		threatened or endangered spp	
or deduct points for coverage	high	A predominance of native specie	s, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant nati	ve spp absent or virtually
_3		absent, and high spp diversity	and often, but not always.
Sparse 5-25% cover (-1)		the presence of rare, threatene	d, or endangered spp
Nearly absent <5% cover (0)		144	
Absent*(1)	Mudflat an	d 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	cres)
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	acres)
Goarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
Standing dead >25cm (10in) dbh			
Amphiblan breeding pools		raphy Cover Scale	
d'	0	Absent	
	1	Present very small amounts or if	more common
		of marginal quality	
AT Z	2	Present in moderate amounts, bu quality or in small amounts of h	t not of highest
AT 7	3	Propert in moderate or creat-	griest quality
	J	Present in moderate or greater ar	nounts
127		and of highest quality	
		*	

		•		storm	water input		other
10.5	47.5		Habitat Alt			pm	ent.
max 20 pts.	sublotal	None of Recover Recover Recent Ab. Habitat devel Sexual Good (\$ \times Modera Fair (3) Poor to Poor (1	ering (2) or no recovery (1) lopment. Select only (2) int (7) int (6) int (7) int (7) int (8) int (9) int (1) int (1) int (1) int (2)	one and ass	ign score.		
ent.	47,5	Recove Recove Recent	or none apparent (9) ered (6) ering (3) or no recovery (1)	mowi grazin cleard select wood	_	×	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

WETVAND 34
ORAM v. 5.0 Field Form Quantitative Rating

W-BAD-121712-03

Site:	_AE	P_	TRENT-DELAGAGE Rate	r(s): /	BAO, VAC	Date: /2/7/2
subtotal	first page	let	ric 5. Special Wetlar	nde		
0 47	5	100	ne o. opeciai wetiai	ius.		
max 10 pts. subi	lotal Ch	eck a	ll that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5)			
			Lake Erle coastal/tributary wetland- Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Oper	restricted hyd	nydrology (10) Irology (5)	
			Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	r fowl habitat	or usage (10)	
(1 53.	5- N	letr	ic 6. Plant commun			nicrotopography.
nax 20 pts. subto			land Vegetation Communities.	Vegetatio	n Community Cover Scal	le
	Sco	ore al	I present using 0 to 3 scale.	0	Absent or comprises <	<0.1ha (0.2471 acres) contiguous area
	/)	2	Aquatic bed Emergent Shrub	1	Present and either cor vegetation and is of significant part but is	nprises small part of wetland's moderate quality, or comprises a
	4		Forest	2	Present and either cor	nprises significant part of wetland's
			Mudflats		vegetation and is of	moderate quality or comprises a small
		<u></u>	Open water		part and is of high qu	uality
	6b.	horiz	Other contal (plan view) Interspersion.	3	Present and comprises vegetation and is of	s significant part, or more, of wetland's
			nly one.		vegetation and is of	riigii quality
			High (5)	Narrative	Description of Vegetation	n Quality
		—	Moderately high(4)	low	Low spp diversity and/	or predominance of nonnative or
	ಎ	-	Moderate (3) Moderately low (2)		disturbance tolerant	
		×	Low (1)	mod	although nonnative a	int component of the vegetation, and/or disturbance tolerant native spp
			None (0)		can also be present.	and species diversity moderate to
	6c.	Cove	erage of invasive plants. Refer		moderately high, but	generally w/o presence of rare
			1 ORAM long form for llst. Add t points for coverage		threatened or endang	gered spp
	OI U	Func	Extensive >75% cover (-5)	hlgh	A predominance of nat	ive species, with nonnative spp
			Moderate 25-75% cover (-3)		ahsent and high son	plerant native spp absent or virtually diversity and often, but not always,
	-1	X	Sparse 5-25% cover (-1)		the presence of rare,	threatened, or endangered spp
	•		Nearly absent <5% cover (0)			
	Absent (1) 6d. Microtopography.			Mudflat and Open Water Class Quality		
			present using 0 to 3 scale.	01	Absent <0.1ha (0.247 Low 0.1 to <1ha (0.247	
			Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2	
		1	Coarse woody debris >15cm (6ln)	3	High 4ha (9.88 acres) of	
			Standing dead >25cm (10in) dbh			
		L	Amphibian breeding pools		graphy Cover Scale	
				0	Absent Procent year amall and	
- 2				1	of marginal quality	ounts or if more common
7.7				2		nounts, but not of highest
					quality or in small am	ounts of highest quality
				3	Present in moderate or	
21					and of highest quality	

Site: ACP TO	CENT- DEZ AWARE	Rater(s): BA	o, Vac	Date: /2/7/2
0 0	Metric 1. Wetland A	area (size).		
max 6 pts. subtotal	Select one 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 <1 <1.2 to <1 0.1 to <0.3 acres (0.04 to <1 0.1 acres (0.04ha) (0 pts)) 20.2ha) (5 pts) ha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
3 3	Metric 2. Upland bu	iffers and sur	rounding land	use.
max 14 pts. subtotal	NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use	m (164ft) or more around 25m to <50m (82 to <16 e 10m to <25m (32ft to average <10m (<32ft) ar . Select one or double for lorder forest, prairie, sar .), shrub land, young secsidential, fenced pasture	d wetland perimeter (7) S4ft) around wetland perimet S2ft) around wetland perimet ound wetland perimeter (0) check and average. vannah, wildlife area, etc. (7 and growth forest. (5) bark, conservation tillage.	ter (4) eter (1)
13 16	Metric 3. Hydrology		<u>.,</u>	
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6ln) (3) 0.4 to 0.7m (15.7 to 27.6ln) 3e. Modifications to natural hydrolog None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	ce water (3) ke or stream) (5) nly one and assign score (2) ic regime. Score one or	Between Part of w Part of right Part of righ	floodplain (1) stream/lake and other human use (1) etland/upland (e.g. forest), complex (1) parian or upland comidor (1) ation/saturation. Score one or dbl check permanently inundated/saturated (4) v inundated/saturated (3) lly lnundated (2) lly saturated in upper 30cm (12in) (1) rce (nonstormwater) dlng
	1	stormwater inpu	t other	
max 20 pts. subtotal	Metric 4. Habitat Al 4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select onl Excellant (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or	e or double check and a y one and assign score.	verage.	
subtotal this p	- Table 1	Check all disturbance mowing grazing clearcutting selective cutting woody debris re toxic pollutants	shrub/saj herbaced sediment dredging emoval farming	oling removal sus/aquatic bed removal ation enrichment

3ite:	AFPT	Rent	DEZAWAAF	Rater(s):	BUTE) Je	Date: 12/7/2
]					
:	subtotal first p	page					
0	26	Met	ric 5. Special \	Netlands			
nax 10 pts.	subtotal	i	all that apply and score as i	ndicated.			
		Г	Bog (10)				
			Fen (10)				
			Old growth forest (10)				
			Mature forested wetland	(5)			
			Lake Erie coastal/tributa	y wetland-unrest	ricted hyd	Irology (10)	
			Lake Erie coastal/tributar			logy (5)	
			Lake Plain Sand Prairies	(Oak Openings)	(10)		
			Relict Wet Prairies (10)				
			Known occurrence state/	federal threatene	ed or enda	ingered species (10)	
			Significant mlgratory son Category 1 Wetland. See				
	المرات	7 8 8 - 4.	- 19			• • •	_
4	30	Meti	ic b. Plant cor	nmunitie	s, int	erspersion, microto	pography.
ex 20 pts.	subtotal] 6a Wel	land Vegetation Communit	ios Vo	antation :	Community Cover Serie	
•			present using 0 to 3 scale		0	Community Cover Scale Absent or comprises <0.1ha (0.24)	174 - 040-) - 0-41
			Aquatic bed	·	1	Present and either comprises small	all part of wotland's
		17	Emergent		·	vegetation and Is of moderate q	uality or comprises a
		3 8	Shrub			significant part but is of low qual	lity
			Forest		2	Present and either comprises sign	nificant part of wetland's
			Mudflats			vegetation and is of moderate q	uality or comprises a small
			Open water			part and is of high quality	and the second second
			Other	_	3	Present and comprises significant	part, or more, of wetland's
			zontal (plan view) Intersper	slon.		vegetation and is of high quality	
		Select or	¬``	M		(30)	
			High (5) Moderately high(4)	Na		escription of Vegetation Quality	
			Moderate (3)		low	Low spp diversity and/or predomin	nance of nonnative or
		2 4	Moderately low (2)		mod	disturbance tolerant native spec Native spp are dominant compone	
			Low (1)			although nonnative and/or distur	thance telerant netice
			None (0)			can also be present, and specie	s diversity moderate to
		6c. Cove	erage of invasive plants. R	efer		moderately high, but generally w	//o presence of rare
		to Table	1 ORAM long form for list.	Add		threatened or endangered spp	yo produite or rate
		or deduc	t points for coverage		high	A predominance of native species	, with nonnative spp
			Extensive >75% cover (-5			and/or disturbance tolerant nativ	e spp absent or virtually
		1	Moderate 25-75% cover (-3)		absent, and high spp diversity as	nd often, but not always,
		-1 <u>X</u>	Sparse 5-25% cover (-1)			the presence of rare, threatened	, or endangered spp
			Nearly absent <5% cover			25 N	
		6d Micro	∫Absent (1) otopography.	· Mu		Open Water Class Quality	
			present using 0 to 3 scale.			Absent <0.1ha (0.247 acres)	
			Vegetated hummucks/tus	eurke	2	Low 0.1 to <1ha (0.247 to 2.47 ac)	
			Coarse woody debris >15		3	Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
			Standing dead >25cm (10			Thigh the (5.00 acres) of more	
		0	Amphibian breeding pools	•	rotopogr	aphy Cover Scale	
			-		0	Absent	
					1	Present very small amounts or if m	nore common
1.2	_					of marginal quality	
1.1					2	Present in moderate amounts, but	not of highest
						quality or In small amounts of hig	hest quality
				_ -	3	Present in moderate or greater am	ounts
na						and of highest quality	

Site: APP	TRENT- DELAWARE Rater(s): BAG JC	Date: /۵/۶/2
00	Metric 1. Wetland Area (size).	
max 6 pts. subtotal	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
5 5	Metric 2. Upland buffers and surrounding land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Oid field (>10 years), shrub land, young second growth-forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	v field. (3)
9 14	Metric 3. Hydrology.	**************************************
max 30 pts. subtotal	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) Cate to 0.7m (15.7 to 27.6in) (2) Part of wetland/upl Part of wetland/upl Duration inundation/satur Semi- to permaner Regularly inundate Seasonally inundate	n (1) ke and other human use (1) and (e.g. forest), complex (1) upland corridor (1) ration. Score one or dbl check. htty inundated/saturated (4) id/saturated (3)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7)	
7,5 21.5	Metric 4. Habitat Alteration and Development.	
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	
	Poor (1) 4c. Habitat alteration. Score one or double check and average.	
subtotal this pa		c bed removal
last revised 1 Februar	ary 200 i jin	

WETZAWD 36 ORAM v. 5.0 Fleld Form Quantitative Rating

W-BAO 121712-02

C:4- / 0			154 ()			
Site: AEP	TRENT.	DELAWARE	Rater(s):	BAC	75	Date: 121712
subtotal first 21.5 max 10 pts. subtotal	Metric	5. Special \				
	B B F F O O M M Le Le Le Le K K K K S S C C C	og (10) en (10) en (10) ld growth forest (10) lature forested wetland ake Erie coastal/tributa ake Erie coastal/tributa ake Plain Sand Prairies elict Wet Prairies (10) nown occurrence state/ ignificant migratory son ategory 1 Wetland. Se	(5) ry wetland-unrestric ry wetland-restricted (Oak Openings) (1) /federal threatened of gbird/water fowl hat e Question 1 Qualit	d hydrology 0) or endange pitat or usa ative Rating	(5) red species (10 ge (10) g (-10)	
4 25.5						, microtopography.
max 20 pts. subtotal		d Vegetation Communit		tation Con	munity Cover	Scale
		esent using 0 to 3 scale	·	0 A	osent or compri	ses <0.1ha (0.2471 acres) contiguous area
	⊢	quatic bed		1 P	esent and elthe	er comprises small part of wetland's
	7 1 2 1	mergent nrub			vegetation and	is of moderate quality, or comprises a
		prest	-	2 P	significant part	but is of low quality
		udflats		1	esent and eithe	er comprises significant part of wetland's
		pen water			vegetation and	is of moderate quality or comprises a small
					part and is of h	gh quality
		her		3 Pi	esent and com	prises significant part, or more, of wetland's
		al (plan view) intersper	sion.		vegetation and	is of high quality
	Select only of					19
		gh (5)		tive Descr	iption of Vege	tation Quality
		oderately high(4)	ı	low Lo	w spp diversity	and/or predominance of nonnative or
		oderate (3)				erant native species
		oderately low (2)	n	nod Na	ative spp are do	ominant component of the vegetation,
		w (1)] ;	although nonna	tive and/or disturbance tolerant native spp
		one (0)		'	can also be pre	sent, and species diversity moderate to
	to Toble 1 Of	e of invasive plants. R RAM long form for list.	eter		noderately high	n, but generally w/o presence of rare
				'	hreatened or e	ndangered spp
		ints for coverage		lgh A	predominance (of native species, with nonnative spp
		tensive >75% cover (-5		1	and/or disturbar	nce tolerant native spp absent or virtually
		oderate 25-75% cover ((-3)		absent, and hig	h spp diversity and often, but not always,
		arse 5-25% cover (-1)			he presence of	rare, threatened, or endangered spp
		arly absent <5% cover sent (1)				
	6d. Microtop	` '			n Water Class	
		sent using 0 to 3 scale.			sent <0.1ha (0	
		getated hummucks/tus		1 Lo	w 0.1 to <1ha (0.247 to 2.47 acres)
		getated ridiffridcks/tus arse woody debris >15				ha (2.47 to 9.88 acres)
	'	anding dead >25cm (10	cm (bin)	3 [Hi	gh 4ha (9.88 ac	res) or more
		anding dead >25cm (10 ophibian breeding pools				
		practical precuiting pools			y Cover Scale	
					sent	
1,				1 Pro	esent very smal	l amounts or if more common
1					f marginal qual	
AT. 2			;	2 Pre	esent in modera	te amounts, but not of highest
•						all amounts of highest quality
			;			ite or greater amounts
155				a	nd of highest q	uality

End of Quantitative Rating. Complete Categorization Worksheets.

APPENDIX B

PHOTOGRAPHS



PHOTOGRAPHIC RECORD

Representative Stream and Wetland Photographs

Client Name:

Site Location:

Project No.

AEP

Trent-Delaware 2nd 138 kV Circuit

14951002

Photo No. 1

Date/Location:

December 17, 2012

Description:

Typical intermittent stream within the existing right-of-way



Photo No. 2

Date/Location:

December 21, 2012

Description:

Typical ephemeral stream within the existing right-of-way





PHOTOGRAPHIC RECORD

Representative Stream and Wetland Photographs

Client Name:

Site Location:

Project No.

AEP

Trent-Delaware 2nd 138 kV Circuit

14951002

Photo No. 3

Date/Location:

December 17, 2012

Description:

Olentangy River crossing



Photo No. 4

Date/Location:

December 17, 2012

Description:

Big Walnut Creek crossing





PHOTOGRAPHIC RECORD

Representative Stream and Wetland Photographs

Client Name:

Site Location:

Project No.

AEP

Trent-Delaware 2nd 138 kV Circuit

14951002

Photo No. 7

Date/Location:

December 17, 2012

Description:

Typical Category 1, PEM wetland within existing right-of-way



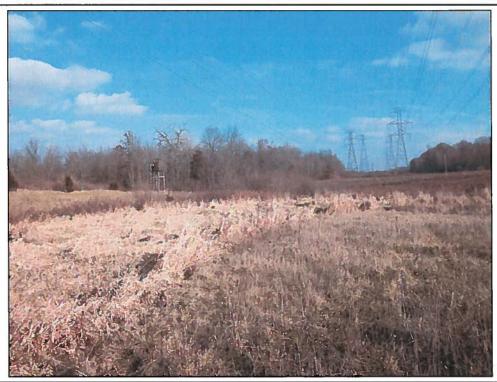
Photo No. 8

Date/Location:

December 18, 2012

Description:

Typical Category 2, PEM/PSS wetland within existing right-ofway



TRENT-DELAWARE 138 KV LINE IMPROVEMENT PROJECT

SOCIOECONOMIC, LAND USE, AND AGRICULTURAL DISTRICT REVIEW REPORT

Prepared for:

American Electric Power Service Corporation 700 Morrison Road Gahanna, Ohio 45230



Prepared by:

URS525 Vine Street, Suite 1800
Cincinnati, Ohio 45202

Project #: 14951002

January 2013





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2.0	GENERAL LAND USE DESCRIPTION	
3.0	POPULATION DENSITY ESTIMATE	
4.0	AGRICULTURAL DISTRICT LAND	
	CONCLUSION	

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Number

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FIGURES (follow text)

Number

FIGURE 1 FIGURES 2A to 6B PROJECT OVERVIEW LAND USE MAPS

APPENDIX (follows figures)

Number

APPENDIX A

COMPREHENSIVE PLAN MAPS





1.0 PROJECT DESCRIPTION

This document presents the socioeconomic, land use, and agricultural district review conducted by URS Corporation (URS) for American Electric Power's (AEP) proposed Trent-Delaware 138 kV Line Improvement Project (Project). AEP is proposing to string a second 138 kV circuit predominantly on the open side of structures along the existing Trent-Delaware 138 kV transmission line. The open side is sufficient for 60 of 64 existing structures. It is necessary to replace the remaining four structures with new double-circuit steel poles. Two of the structure replacements will be approximately 200 to 400 feet west of their current locations. The entire Project is proposed to be within existing right-of-way that includes the single circuit Trent-Delaware line as well as portions of the Hyatt-Corridor and Hyatt-Conesville 345 kV circuits. The Project extends for approximately 13.5 miles in Delaware County, Ohio, as shown on Figure 1.

As part of the Ohio Power Siting Board (OPSB) Letter of Notification (LON) requirements, AEP is required to assess and report the socioeconomic, land use, and agricultural district characteristics potentially affected by the Project, as stated in Ohio Administrative Code (OAC) Rule 4906-11-01(D)(1) and (2). These rules state:

- (D) Socioeconomic data. Describe the social and ecological impacts of the project. This description shall contain the following information:
 - (1) A brief, general description of land use within the vicinity of the proposed project, including: (a) a list of municipalities, townships, and counties affected; and (b) estimates of population density adjacent to rights-of-way within the study corridor (the U.S. census information may be used to meet this requirement).
 - (2) The location and general description of all agricultural land (including agricultural district land) existing at least sixty days prior to submission of the letter of notification within the proposed electric power transmission line rightof-way, or within the proposed electric power transmission substation fenced-in area, or within the construction site boundary of a proposed compressor station.

AEP retained URS to conduct a desktop review of socioeconomic, land use, and agricultural district land characteristics. A study corridor was established that extends 1,000 feet on each side of the proposed new circuit centerline, resulting in a 2,000-foot wide study corridor. In conjunction with ecological field surveys for the Project, URS noted land uses crossed by the existing right-of-way. This report will be used to assist AEP's efforts to avoid or minimize impacts to socioeconomic characteristics and land uses potentially present in the study area during construction activities.

2.0 GENERAL LAND USE DESCRIPTION

Land use within the 2,000-foot wide study corridor (1,000 feet on each side of the proposed centerline) of the proposed Trent-Delaware second 138 kV circuit is shown on Figures 2A through 6B. Current land use characteristics were obtained through review of United States Farm Service Agency National





Agricultural Imagery Program digital aerial photography taken in 2011; the United States Geological Survey (USGS) 7.5-minute topographic maps of the Olive Green (1973, photorevised 1981), Kilbourne (1980), and Delaware (1973, photorevised 1980) quadrangles; county property parcel data; and a field reconnaissance conducted in December 2012.

Land use within the 2,000-foot wide study corridor is mixed. About half of the land within the 2,000-foot corridor is agricultural. Residential and wooded land uses are each between 15 and 20 percent of the total. Approximately 800 homes were identified within 1,000 feet of the proposed circuit, with approximately 750 of these on the western half of the Project. Seventeen residences were identified within 100 feet, 15 of which are within the City of Delaware along the westernmost mile of the Project. Alum Creek State Park accounts for approximately 10% of the study corridor. Approximately 5% of the study corridor is used for commercial or industrial purposes. Two churches, accounting for less than 1% of the total land area studied, were also identified within 1,000 feet of the proposed circuit. Transportation, utility, and stream corridors are also present.

General land use trends in Delaware County indicate that there is an ongoing conversion of farmland to residential and commercial districts as the Columbus metropolitan area expands, although development has slowed considerably over the last five years (Delaware County Regional Planning Commission, Delaware County Development Trends, December 2011).

URS reviewed the *Economic Strategic Plan, Jurisdiction Section* prepared by the Delaware County Regional Planning Commission, dated April 1, 2012. The plan contained Comprehensive Land Use Plan maps for the three of the four townships within 1,000 feet of the proposed rebuild section of the Project. Delaware Township does not have a stand-alone comprehensive plan, according to the plan.

The 2004 map of Trenton Township shows areas within 1,000 feet of the project as Farm Residential District and 100-year floodplain. The unincorporated portion of the 2008 map of Berkshire Township shows areas crossed as agricultural district, planned office, planned commercial and office district, planned commercial, and 100-year floodplain. The 2007 map of Berlin Township shows areas crossed as planned office and commercial district, United States land, single family at one unit per acre, single family at 1.5 units per acre, single family at 1.85 units per acre, and water. The existing Trent-Delaware transmission line corridor is shown on these township maps. The 2004 Village of Sunbury Comprehensive Plan map shows areas crossed as single family at 1.5 units per acre, single family at three units per acre, industrial district, planned commercial, and planned industrial. The 2007 Future Land Use Map from the City of Delaware Comprehensive Plan also includes the portions of the Project crossing Delaware Township. This map shows areas crossed agricultural/rural residential, very low density single family, low density single family, floodplains/major greenways, high density multi-family, mixed use, and moderate density single-family. These maps are included in Appendix A. As the proposed activity is predominately stringing with limited structure replacement along an existing line, impacts to future land use, if any, are expected to be minimal.





3.0 POPULATION DENSITY ESTIMATE

Population density estimates for land within the 2,000-foot wide study corridor were calculated by direct estimation based on study corridor size, number of residences identified in the corridor, and the average number of persons per household in Delaware County. Approximately 800 homes were identified within the 3,300-acre, 2,000-foot wide study corridor, which is entirely within Delaware County. According to the 2010 U.S. Census, the average household in Delaware County has 2.74 persons for a total estimated population along the route of approximately 2,200. This equates to a population density of 0.7 person per acre, which is similar to the 0.6 person per acre average for all of Delaware County. The above estimates are limited by available statistics and generalizations across the county, and are summarized in Table 1.

TABLE 1
STUDY AREA CENSUS POPULATION ESTIMATES

Government Unit	Percent of 2,000-foot Corridor	2000 Census	2010 Census
Delaware County	100	109,989	174,214
Berkshire Township	24	2,251	2,464
Trenton Township	8	2,137	2,276
Berlin Township	37	3,490	5,747
Delaware Township	13	931	1,433
City of Delaware	7	25,900	31,496
Village of Sunbury	11	2,692	3,280

Sources:

U.S. Census Bureau, Census 2010 Summary File 2 U.S. Census Bureau, Census 2000 Summary File 2 Economic Strategic Plan, Jurisdiction Section, April 1, 2012

No planned residential developments within the study corridor were discovered as part of this study. It is not expected that the Project will significantly impact existing or planned land use within the vicinity of the Project as an existing transmission line is present along the length of the Project and construction impacts will be temporary in nature.

4.0 AGRICULTURAL DISTRICT LAND

Parcels registered in the Agricultural District Land program were obtained from the Delaware County Auditor's office on January 2, 2013. Twelve Agricultural District Land parcels were identified within the 2,000-foot study corridor. Seven of these parcels are beyond the existing right-of-way. None of the four structures to be replaced are located on Agricultural District Land parcels. The corridor is currently existing electric transmission line right-of-way and therefore stringing the new circuit on an open position of existing structures is not expected to permanently disrupt agricultural practices. The agricultural fields in the Agricultural District will be temporarily impacted during the restringing of the overhead cable. Efforts will be made during reconstruction to minimize the extent of disturbance. AEP will compensate property owners for any monetary losses due to the Project through the right-of-way settlement process. AEP has and will continue to work with each owner to avoid or minimize damages to property. The replacement, operation, and maintenance of the transmission line are not expected to affect the viability

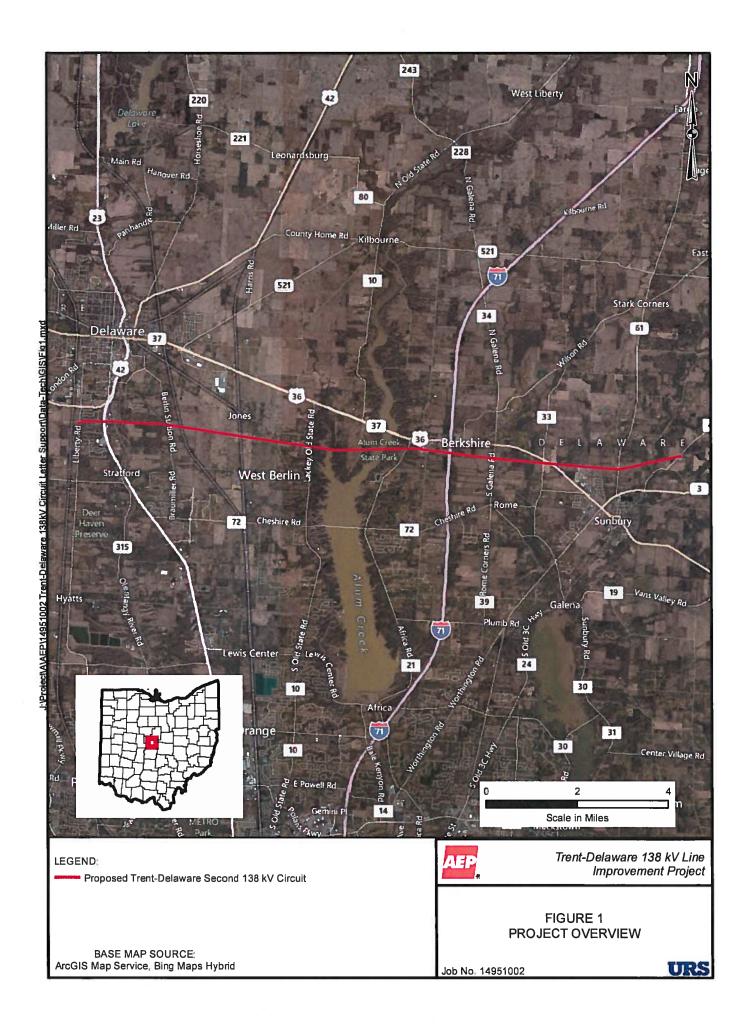


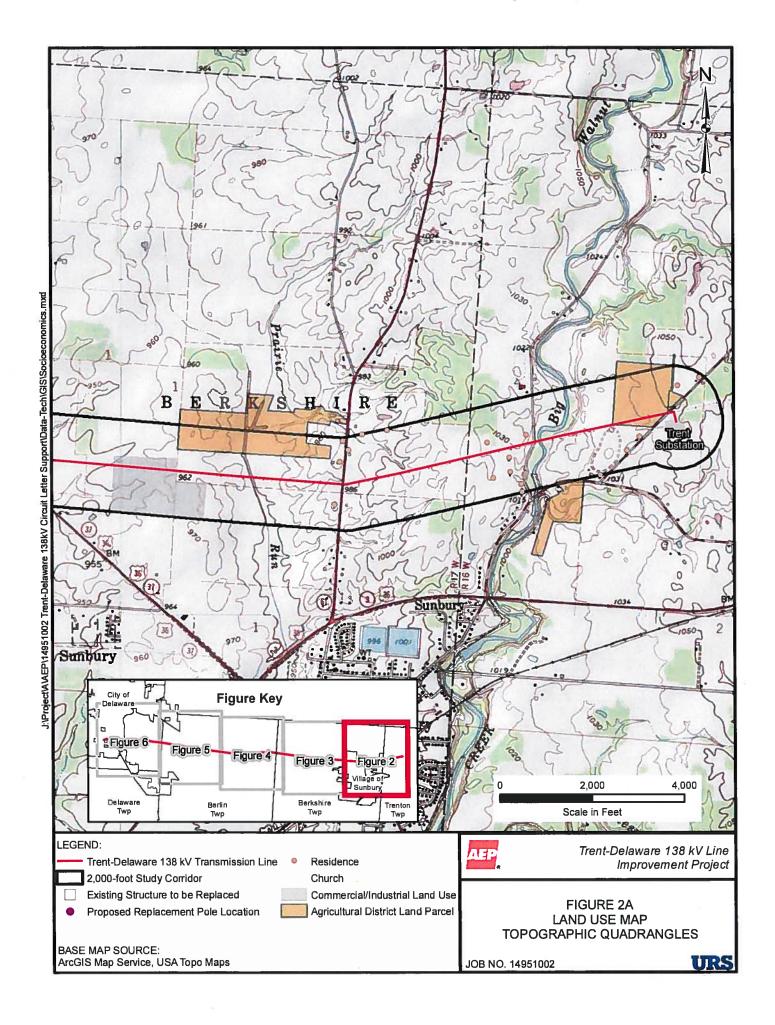


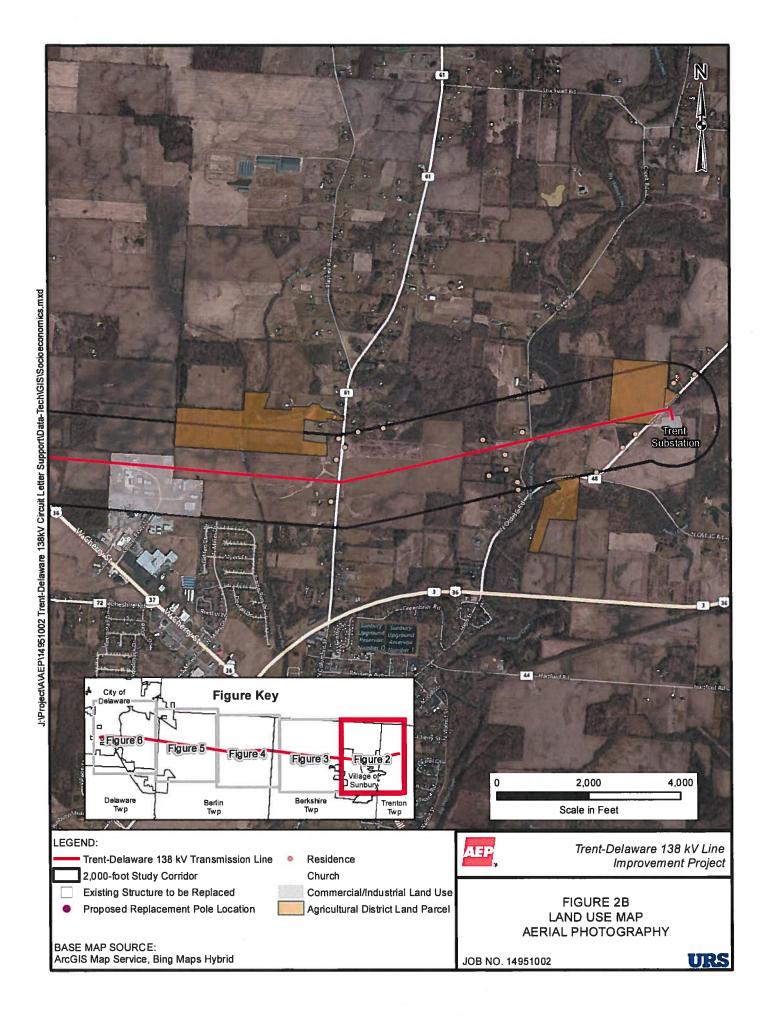
of agricultural land within the study area. Upon completion of the Project, agricultural practices in the region are expected to return to their current state.

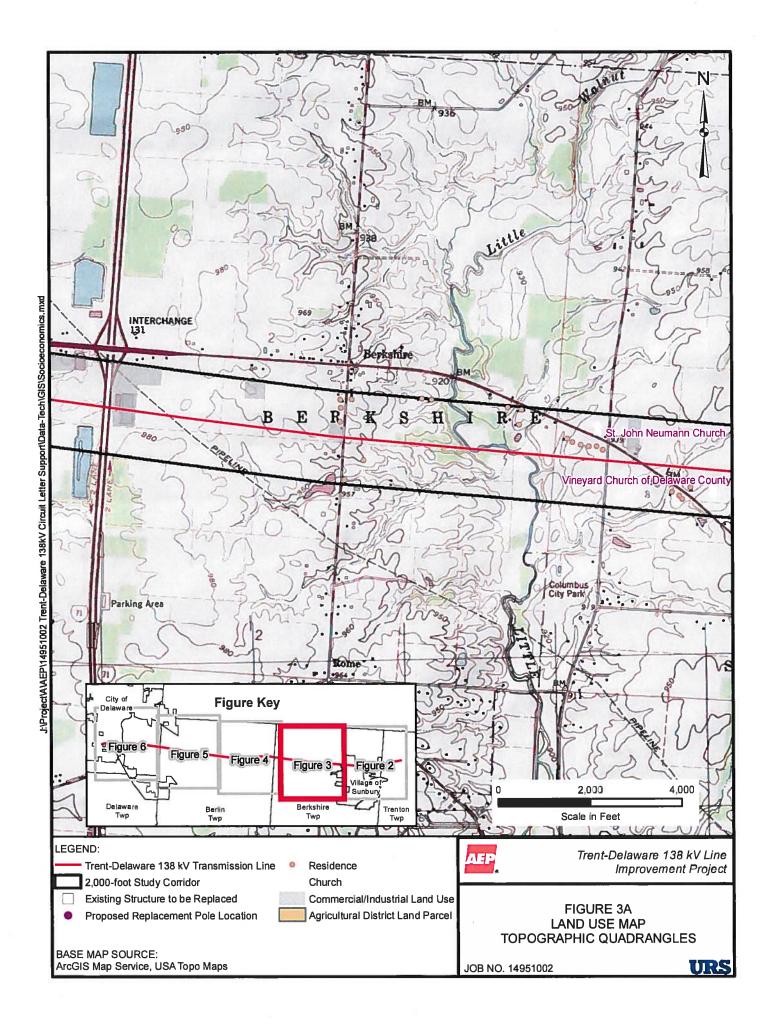
5.0 CONCLUSION

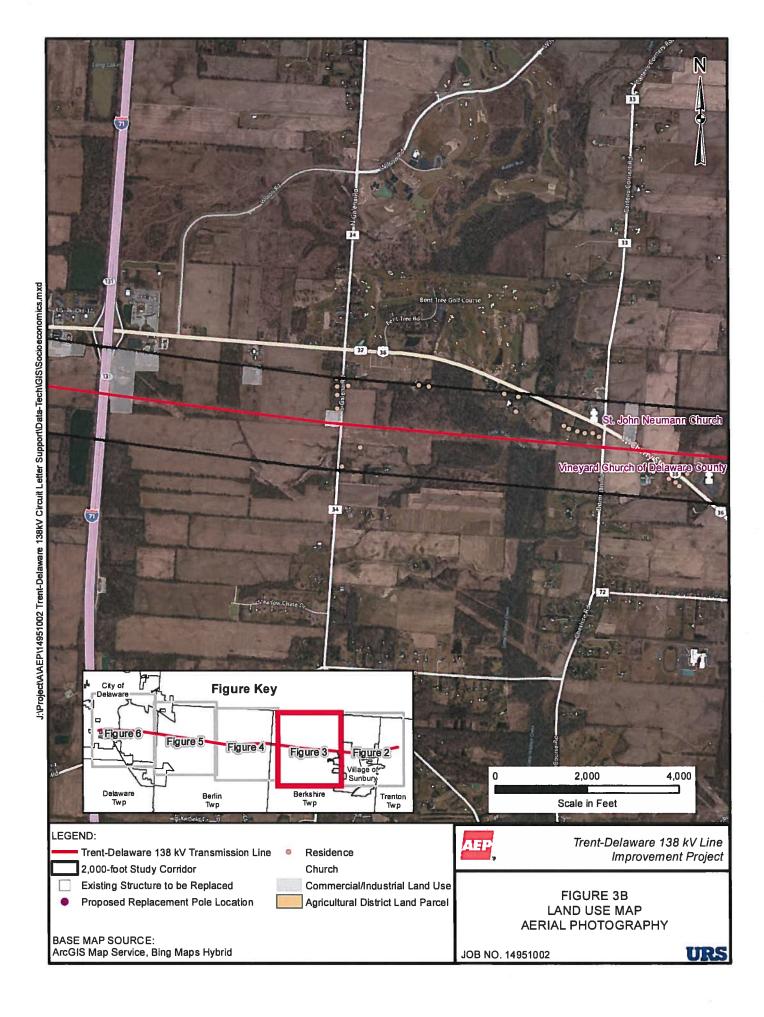
The Project is not expected to significantly impact current socioeconomic characteristics, land use and agricultural district land in the vicinity of the Project, as an electric transmission line currently exists. While temporary construction and restringing efforts will cause changes to the short-term condition of the existing transmission line right-of-way corridor, particularly from an agricultural perspective, these impacts will be temporary in nature and localized to pole locations and access roads. The Project is not expected to impact any future land use plans for the area.

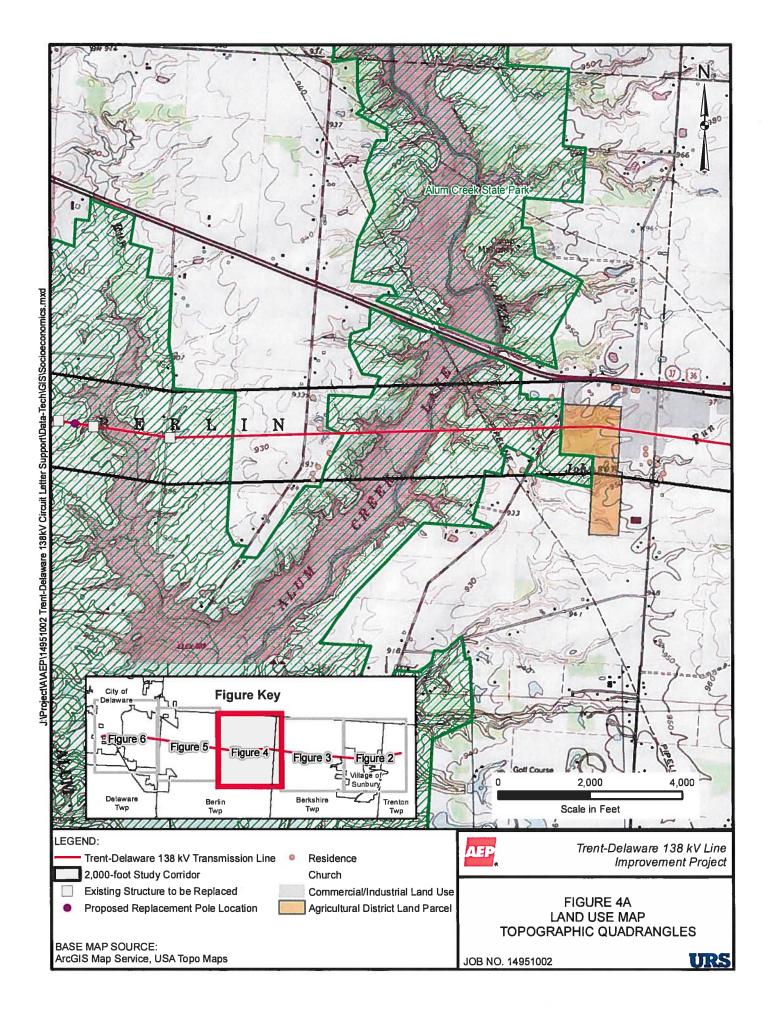


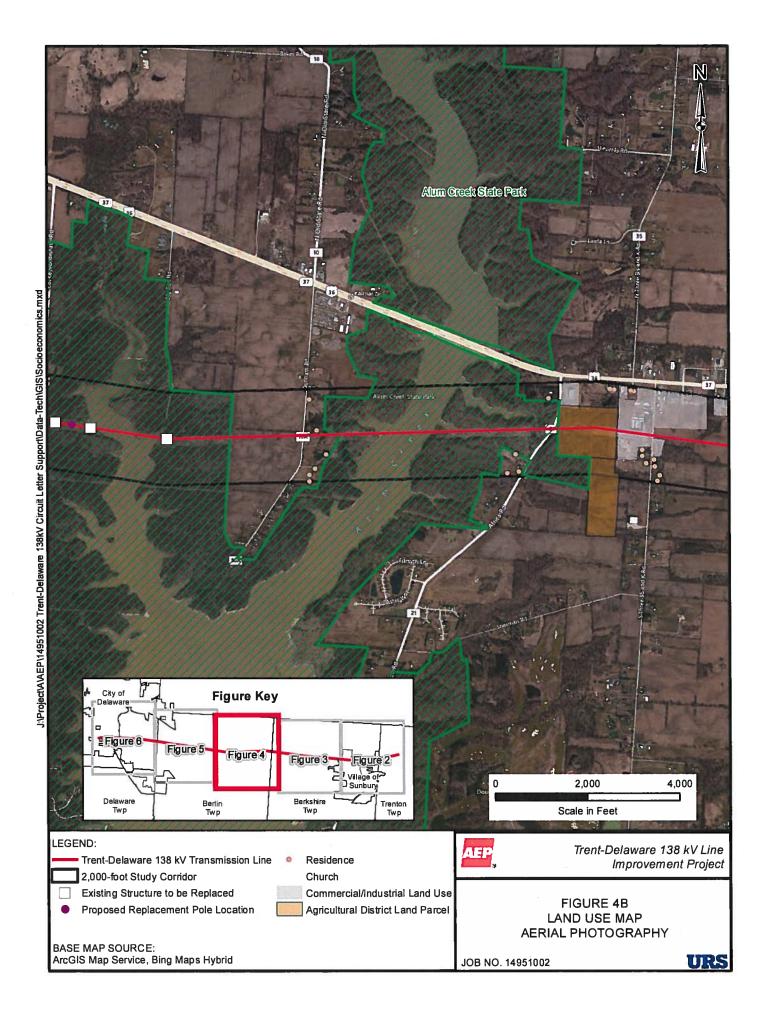


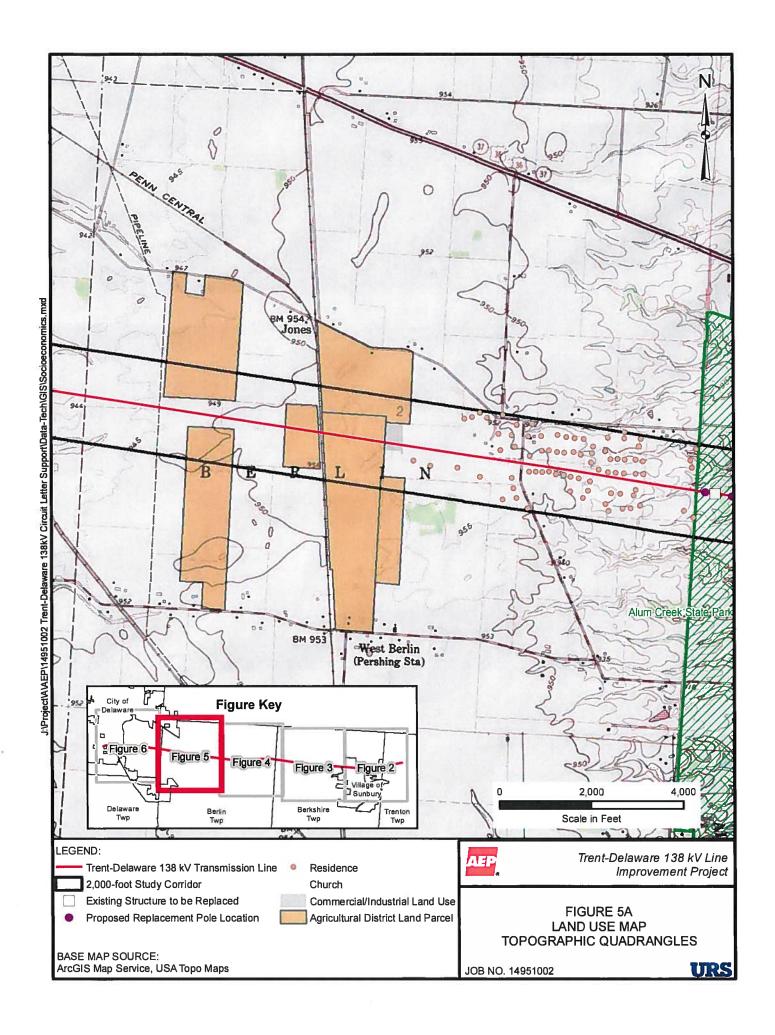


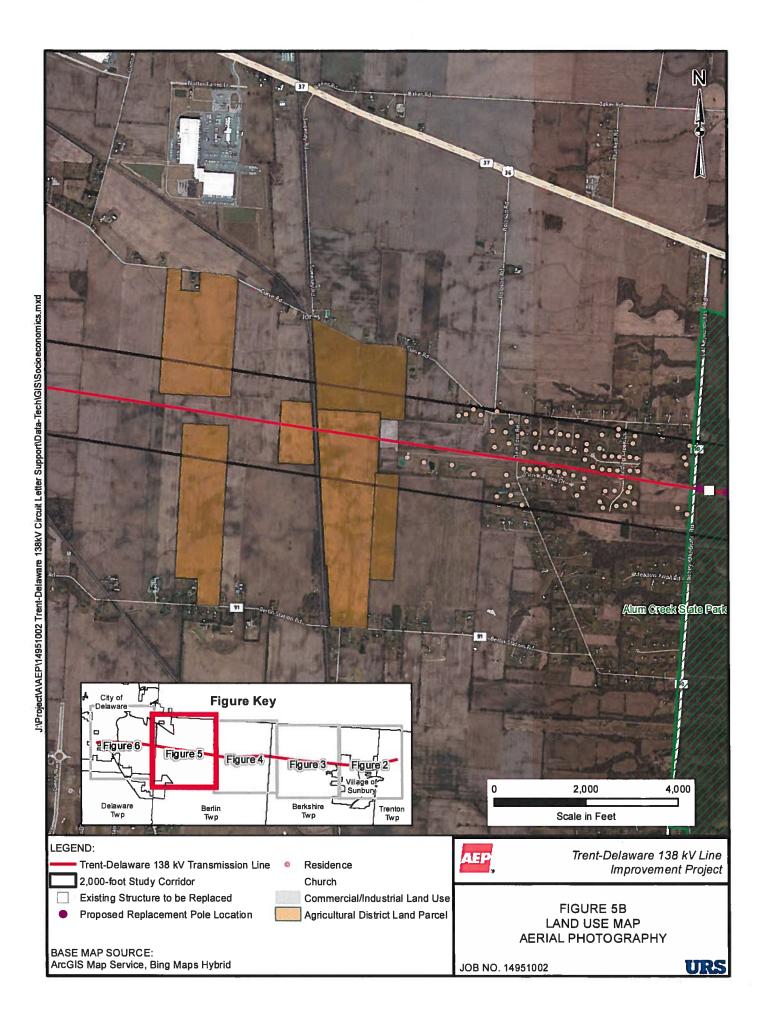


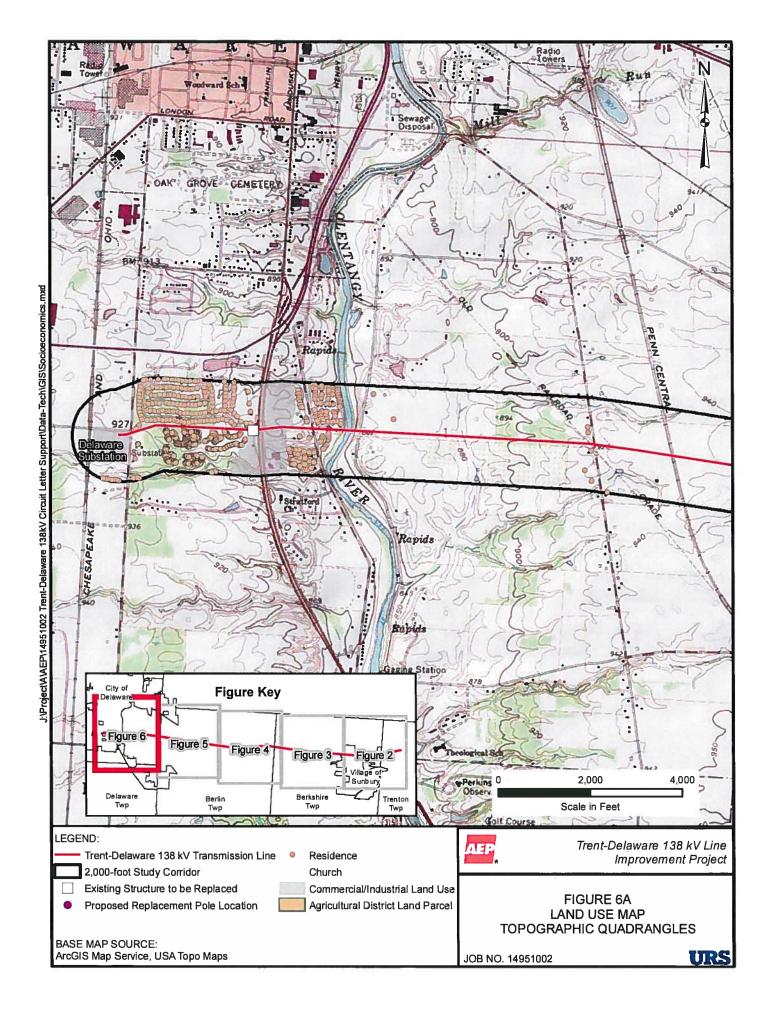


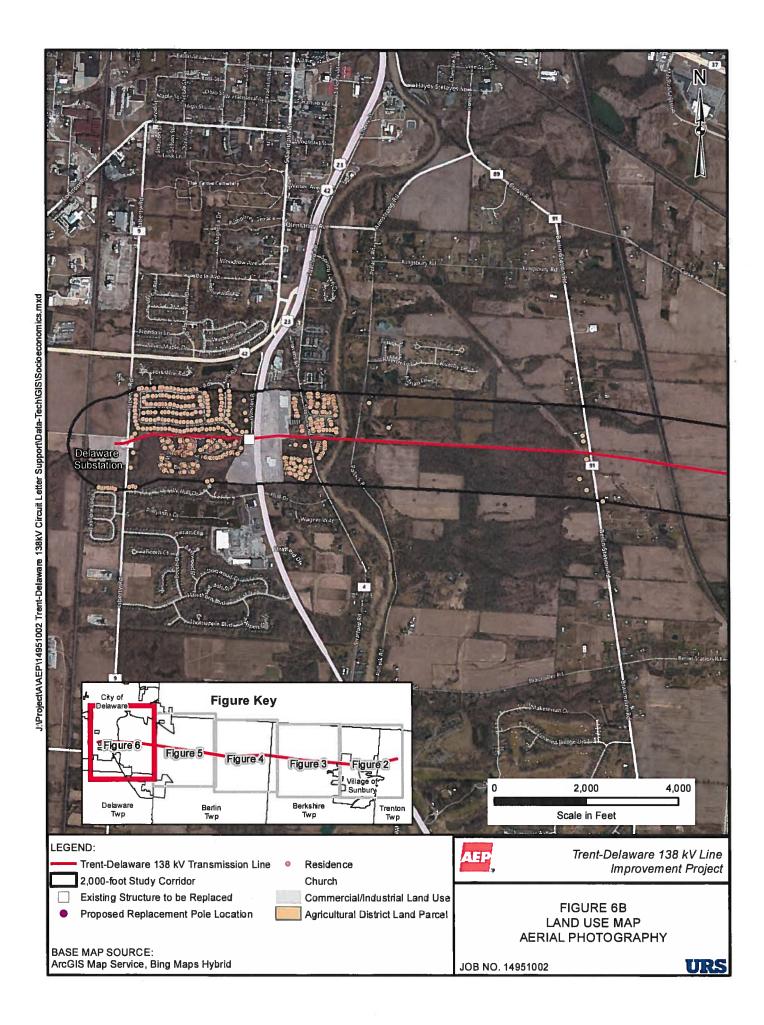












APPENDIX A

COMPREHENSIVE PLAN MAPS

-10000100	20	2009	Bulld-Out	-Out
Land Use Type				E 2000
Agriculture	5,336	42.3%	0	0.0%
Fotal Residential	2,734	21.7%	7,965	63.1%
Single Family	2,725	21.6%	7,839	62.1%
Multi-family	6	0.1%	126	1.0%
Total Comm. & Industrial	129	1.0%	1,043	8.3%
Commercial	129	1.0%	835	7.4%
findustrial	0	9600	108	%6:0
Institution	116	9,670	177	.1.4%
Rivers/Lakes/Seasonal Swakes	909	4.0%	909	4.0%
Highway/Rail/Right-of-Way	598	4.7%	1,441	11.4%
Bott/Parks	966	7.9%	1,483	11.8%
Agricultural Vacant Land	45	0.4%	0	0.0%
Residential Vacant Land	1,910	15.1%	0	%0:0
Industrial Vacant Land	-	9,00	0	0.0%
Commercial Vacant	247	2.0%	0	%0.0
Incorporated Areas	3,163	25.1%	3,163	25.1%
Total Acreage	15,779		15,779	
Total Township	12,616	100%	12,616	100%

BERKSHIRE TOWNSHIP

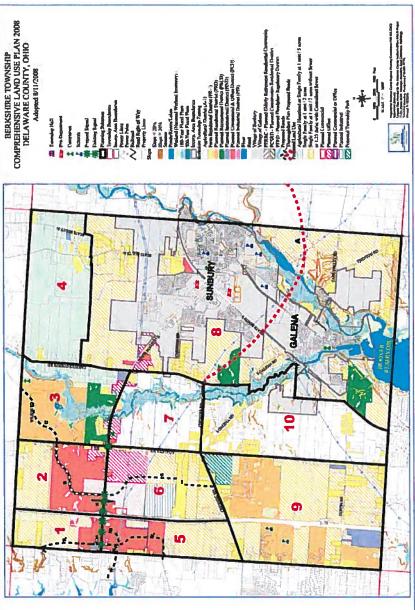
Build-out Population based on 2008 Comprehensive Plan: 17,113

Gain in Commercial land based on Comprehensive Plan:

807 additional acres

Gain in Industrial land based on Comprehensive Plan:

108 additional acres





Economic Strategic Plan - Jurisolictions

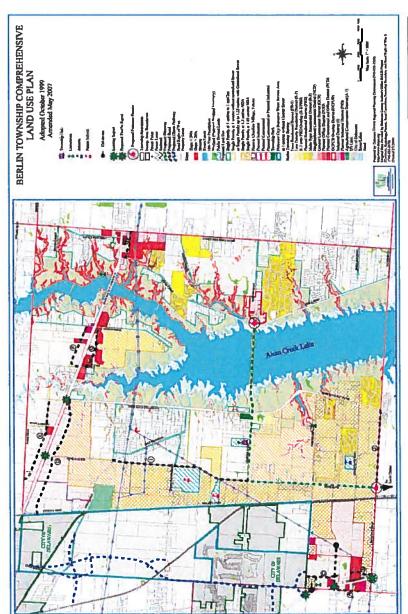
	2009	60	Bolk	Build-Car
Land Use Type		4-500		3350
Agriculture	3,756	24.1%	0	20.0
Total Residential	3,277	21.0%	7,877	50.5%
Single Family	3,257	20.9%	7,774	49.8%
Multi-family	19	0.1%	103	0.7%
fotal Comm. & Industrial	254	1.6%	994	%4%
Commercial	242	1.6%	831	96'9
Industrial	21	%1'0	163	%0T
Institution	122	0.8%	192	1.2%
Rivers/Lakes/Seasonal Swales	2,099	13.5%	2,099	13.5%
Highway/Rail/Right-of-Way	685	4.4%	1,499	89.6
Golf/Parks	2,802	18.0%	2,940	18.8%
Agricultural Vacant Land	157	1.0%	0	%0.0
Residential Vacant Land	2,394	15.3%	0	%0.0
Industrial Vacant Land	0	9,0'0	0	%0.0
Commercial Vacant	55	0.4%	0	%0.0
Incorporated Areas	1,148		1,148	
Total Acreage	16,749		16,749	1
(Total Township)	15,601	100%	15,601	300%

BEALIN TOWNSHIP

Build-out Population based on 2007 Comprehensive Plan: 24,000

589 additional acres Gain in Commercial land based on Comprehensive Plan:

151 additional acres Gain in Industrial land based on Comprehensive Plan:





Economic Strategic Plan - Jurisdictions

	2009	99	Bulk	Bulld-Out
Land Use Type				
Agriculture	2,205	36.9%	0	50.0
Total Residential	1,785	29.9%	4,274	71.5%
Single Family	1,770	29.6%	4,258	71.2%
Mutti-family	15	0.3%	15	%E'0
Total Comm. & Industrial	217	3.6%	480	8.0%
Commercial	217	3.6%	222	3.7%
Industrial	0	9,00	257	4.3%
Institution	219	3.7%	219	3.7%
Rivers/Lakes/Seasonal Swales	120	2.0%	120	2.0%
Highway/Rail/Right-of-Way	267	4.5%	733	12.3%
Gotf/Parks	53	%6.0	152	2.5%
Agricultural Vacant Land	2	1.1%	0	%0'0
Residential Vacant Land	962	16.1%	0	%0.0
Industrial Vacant Land	S.	0.1%	0	%0'0
Commercial Vacant	81	1.4%	0	%0.0
Incorporated Areas	10,106		10,106	
Total Acreage	16,083		16,083	7
(Total Township)	5.977	%001	5,977	100%

Delaware Township does not have a stand-alone Comprehensive Land Use Plan.

DELAWARE TOWNSHIP

Build-out Population based on the county's Sewer Master Plan densities: 15,014

Gain in Commercial land based on Comprehensive Plan: 5 additional acres

Gain in Industrial land based on Comprehensive Plan:

257 additional acres



Economic Strategic Plan -- Jurisdictions 11

	5009	60	Bulld-Out	Poert
Land Use Type				100000000000000000000000000000000000000
Agriculture	11,451	67.4%	0	%0
Total Residential	3,110	18.3%	13,226	77.8%
Single Family	3,108	18.3%	13,224	77.8%
Mutti-family	23	%0.0	2	960:0
Total Comm. & Industrial	145	%6.0	244	1.4%
Commercial	145	0.9%	204	1.2%
industrial	0	90.0	40	0.2%
Institution	109	9.9%	109	%9.0
Rivers/Lakes/Seasonal Swales	279	1.6%	279	1.6%
Highway/Rail/Right-of-Way	371	2.2%	2,132	12.5%
Golf/ Parks	187	1.1%	1,002	2.9%
Agricultural Vacant Land	306	1.8%	0	%0.0
Residential Vacant Land	956	5.6%	0	90.0
Industrial Vacant Land	47	0.3%	0	%0.0
Commercial Vacent	32	0.2%	0	%0'0
Incorporated Areas	31	1000	31	2.307
Total Acreage	17,024		17,024	100%
(Total Township)	16,993	100%	16,993	100%

TRENTON TOWNSHIP

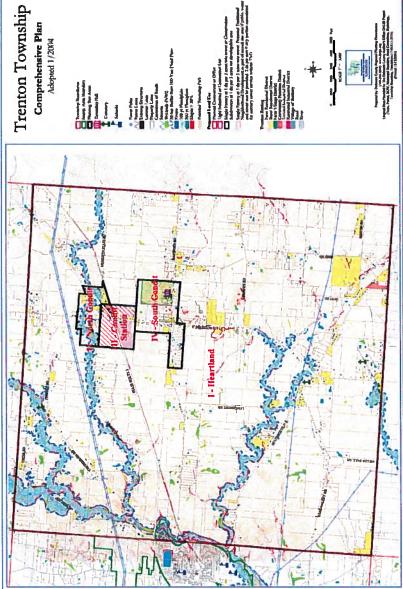
Build-out Population based on 2004 Comprehensive Plan: 11,684

Gain in Commercial land based on Comprehensive Plan:

59 additional acres

Gain in Industrial land based on Comprehensive Plan:

40 additional acres





Economic Strategic Plan - Jurisdictions

TRENT-DELAWARE 138 KV LINE IMPROVEMENT PROJECT

THREATENED AND ENDANGERED SPECIES SURVEY REPORT

Prepared for:

American Electric Power Service Corporation 700 Morrison Road Gahanna, Ohio 43230



Prepared by:

URS 525 Vine Street, Suite 1800 Cincinnati, Ohio 45202

Project #: 14951002

January 2013





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APPENDIX (follows figures)

Number

APPENDIX A

AGENCY RESPONSES





1.0 PROJECT DESCRIPTION

This document presents the results of the threatened and endangered species assessment conducted by URS Corporation (URS) for the American Electric Power's (AEP) proposed Trent-Delaware 138 kV Line Improvement Project (Project). AEP is proposing to string a second 138 kV circuit predominantly on the open side of structures along the existing Trent-Delaware 138 kV transmission line. The open side is sufficient for 60 of 64 existing structures. It is necessary to replace the remaining four structures with new double-circuit steel poles. Two of the structure replacements will be approximately 200 to 400 feet west of their current locations. The entire Project is proposed to be within existing right-of-way that includes the single circuit Trent-Delaware line as well as portions of the Hyatt-Corridor and Hyatt-Conesville 345 kV circuits. The Project extends for approximately 13.5 miles in Delaware County, Ohio, as shown on Figure 1.

As part of the Ohio Power Siting Board (OPSB) Letter of Notification (LON) requirements, AEP is required to assess and report the socioeconomic, land use, and agricultural district characteristics potentially affected by the Project, as stated in Ohio Administrative Code (OAC) Rule 4906-11-01(D)(1) and (2). This rule states:

- (E) Environmental data. Describe the environmental impacts of the proposed project. This description shall include the following information:
 - (1) A description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the area likely to be disturbed by the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

AEP retained URS to conduct threatened and endangered species review within areas crossed by the proposed Project and a field survey within the existing maintained right-of-way (approximately 100 to 200 feet wide). This report will be used to assist AEP's efforts to avoid impacts to threatened and endangered species potentially present in the study area during construction activities.

2.0 METHODS

The first phase of the survey involves a review of online lists of federal and state species of concern. In addition to the review of available literature, URS submitted a request to Ohio Department of Natural Resources (ODNR) Biodiversity Database for GIS records of species of concern that are within close proximity to the Project. These GIS records were overlain on the Project GIS maps to identify designated species and other sensitive areas as reported by ODNR in relation to the Project. URS also submitted a coordination letter to the U.S. Fish and Wildlife Service (USFWS) and ODNR soliciting comments on the Project. Copies of the response letters provided by ODNR and USFWS are included as Appendix A. Agency identified species and available species-specific information was reviewed to determine the





various habitat types that listed species are known to frequent. This information was used during the field survey to assess the potential for these species of concern in, or near the Project study corridor.

3.0 RESULTS

URS field ecologists conducted a designated species habitat survey in conjunction with the stream and wetland field surveys from December 17, 2012 through December 21, 2012.

3.1 State Species of Concern

ODNR provided a letter response dated January 10, 2013, indicating the ranges of several species that potentially occur within the vicinity of the proposed Project area. Table 1 lists the five species identified by the ODNR and comments regarding the Project's potential to impact the species is discussed below.

TABLE 1
STATE LISTED SPECIES THAT COULD INHABIT
DELAWARE COUNTY, OHIO

Common Name	Scientific Name	State Status
Mammais		
Indiana bat	Myotis sodalis	Endangered
Mussels		
Clubshell	Pleurobema clava	Endangered
Rayed bean	Villosa fabalis	Endangered
Snuffbox	Epioblasma triquetra	Endangered
Fish		
Black shiner	Notropis heterolepis	Endangered

Forested areas that could provide Indiana bat roosting and foraging habitat exist beyond the regularly maintained right-of-way where the Project will be constructed. As a result, potential Indiana bat habitat is not expected to be impacted by the Project in most locations. ODNR indicated that since no tree removal is proposed, the Project is not likely to impact the Indiana bat.

The ranges of the blacknose shiner, clubshell mussel, snuffbox, and rayed bean were identified to potentially be within the vicinity of the Project. ODNR stated that if no in-water work is proposed, then the Project is not likely to impact these species. No in-water work is currently proposed for the rebuild Project. It is expected that aerial stream crossing will be achieved by accessing structure locations from one side of a stream or the other without crossing the stream with any equipment. Due to the nature of Project, it is unlikely this Project would affect these fish and mussel species.





No state species of concern, or signs of these species, and no unique habitats were observed during the field survey, and the ODNR Ohio Biodiversity Database revealed no threatened, endangered, special interest, or extirpated species within the vicinity of the Project area. Additionally, construction will be limited predominantly to pole locations within existing right-of-way. Therefore, no state species of concern are expected to be impacted by the proposed Project.

3.2 Federal Species of Concern

To address the Project's potential to impact federally protected species, URS conducted a web based literature review of U.S. Fish and Wildlife's (USFWS) Federally Listed Species by Ohio Counties, October 2012, to determine what species are known to potentially occur in the counties crossed by the Project. Table 2 lists the four species identified during the USFWS literature review along with comments regarding the Project's potential to impact the species.

TABLE 2
FEDERALLY LISTED SPECIES THAT COULD INHABIT
DELAWARE COUNTY, OHIO

Common Name	Scientific Name	Federal Status	County or Counties
Mammals			
Indiana bat	Myotis sodalis	Endangered	Delaware
Mussels			
Clubshell	Pleurobema clava	Endangered	Delaware
Rayed Bean	Villosa fabalis	Endangered	Delaware
Snuffbox	Epioblasma triquetra	Endangered	Delaware

Federally Listed Species by Ohio Counties, October 20, 2012.

Accessed December 1, 2012: http://www.fws.gov/midwest/endangered/lists/pdf/Ohiocty.html

Three of the four federally identified species are mussels. No in-water work is currently proposed for the Project. It is expected that aerial stream crossing will be achieved by accessing structure locations from one side of a stream or the other without crossing the stream. Due to the nature of the Project, it is unlikely this Project would affect mussel or fish species. The remaining species is discussed below:

The federal government lists this species as endangered in Ohio. Winter Indiana bat hibernacula include caves and mines while summer habitat typically includes tree species exhibiting exfoliating bark or cavities that can be used for roosting. The 8- to 10-inch diameter size classes of several species of hickory (*Carya* spp.), oak (*Quercus* spp.), ash (*Fraxinus* spp.), birch (*Betula* spp.), and elm (*Ulmus* spp.) are utilized in live form by the Indiana bat. These tree species and many others may be used when dead, if there are adequately sized patches of loosely-adhering bark or open cavities. The structural configuration of forest stands favored for roosting includes a mixture of loose-barked trees with 60 to 80 percent canopy closure and a low density sub-canopy (less than 30 percent between about 6 feet high and the base canopy). The suitability of roosting habitat for foraging or the proximity to suitable foraging





habitat is critical to the evaluation of a particular tree stand. An open subcanopy zone, under a moderately dense canopy, is important to allow maneuvering while catching insect prey. Proximity to water is critical, because insect prey density is greater over or near open water. The study corridor and corresponding Project extent are maintained transmission line right-of-way. This area is considered to be low quality foraging habitat. While some potential Indiana bat habitat is present adjacent to the existing right-of-way, these areas are not proposed to be cleared. As a result potential Indiana bat habitat is not expected to be impacted by the Project.

In a letter dated December 18, 2012, USFWS correspondence indicates that no designated critical habitat is within the vicinity of the Project. Due to the Project type, size, and location, USFWS indicated that they do not anticipate any impact on federally endangered, threatened, or candidate species, or their habitats.

4.0 SUMMARY

AEP retained URS to conduct threatened and endangered species review within areas crossed by the proposed Project and a field survey within the existing maintained right-of-way (approximately 200 feet). This report will be used to assist AEP's efforts to avoid impacts to threatened and endangered species potentially present in the study area during construction activities. The field survey was conducted by URS field biologists from December 17, 2012 through December 21, 2012.

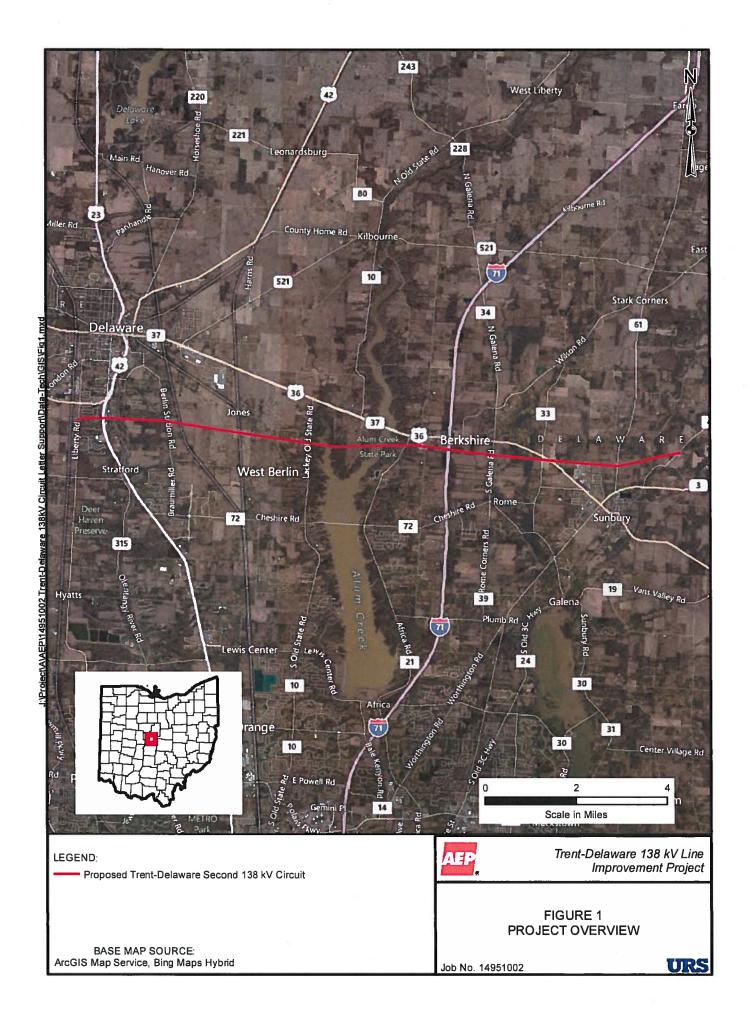
No state species of concern or signs of these species, and no unique habitats were observed during the field survey. The ODNR Biodiversity Database revealed no threatened, endangered, special interest or extirpated species within the vicinity of the Project area. Construction will be predominantly limited to open-position stringing of a new circuit on existing structures, with limited structure replacement within the existing right-of-way. Therefore, no state species of concern are expected to be impacted by the Project as proposed.

Due to the Project type, size, and location, USFWS indicated in a correspondence letter that they do not anticipate any impact on federally endangered, threatened, or candidate species, or their habitats.

It should be noted that species of concern typically occupy unique habitats that are also threatened or endangered, most often by human development. No threatened and endangered habitats, e.g. bottomland hardwood forests, bogs, or native prairie meadows, are located along the route of the Project. Therefore, it is not expected that any species of concern will be impacted by the Project as proposed.

5.0 CONCLUSION

Based upon the nature of the Project, review of available current literature, review of federal and state records of species of concern, contact with the USFWS and the ODNR, and the field survey conducted from December 17, 2012 through December 21, 2012, it is not expected that federal or state species of concern will be impacted by the Project as currently planned.



APPENDIX A

AGENCY RESPONSES

Geckle, Aaron

From: Kessler, John <John.Kessler@dnr.state.oh.us>

Sent: Thursday, January 10, 2013 12:33 PM

To: Geckle, Aaron

Cc: Otto, Benjamin; Thomayer, Matt; Tebbe, Sarah

Subject: FW: 12-774 Comments URS Trent Delaware 2nd Circuit project

Importance: High



ODNR COMMENTS TO: URS; Aaron Geckle, aaron.geckle@urs.com

Project: AEP Trent Delaware 2nd 138 kV Circuit Project

Location: Within Delaware County, with crossings at Alum Creek Reservoir and Olentangy River

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state and federally endangered species. Since no tree removal is proposed, the project is not likely to impact this species.

The project is within the range of the clubshell (*Pleurobema clava*), a state and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federal endangered mussel species, and the snuffbox (*Epioblasma triquetra*), a state endangered and federal endangered mussel. Since no in-water work is proposed, the project is not likely to impact these species.

The project is within the range of the blacknose shiner (*Notropis heterolepis*), a state endangered fish. Since no in-water work is proposed, the project is not likely to impact these species.

Two of the species listed on Table 1 have an incorrect status. Please see the following link regarding state endangered species: http://www.dnr.state.oh.us/wildlife/Home/resources/mgtplans/endangered/tabid/6005/Default.aspx

The ODNR Natural Heritage Database has no records for rare or endangered species at this project site. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges or other protected natural areas within the project area. Our inventory program does not provide a complete survey of Ohio wildlife, and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

Scenic Rivers: The Division of watercraft has the following comments.

Scenic Rivers Program staff have reviewed American Electric Power's proposed Trent-Delaware Circuit project that will cross the Olentangy State Scenic River in Delaware County. The Scenic Rivers Program takes great interest in any project that could potentially affect the Olentangy State Scenic River or any of its tributary streams and appreciates the opportunity to comment.

- 1.. The Scenic Rivers Program holds a conservation easement over an 8.319 acre parcel (#41912401007000) that appears (from the documentation submitted with the project) to be crossed by this transmission line. In order to fully evaluate the potential impacts of this proposed crossing, the Scenic Rivers Program needs to have the opportunity to review the existing power line easement/right of way across the conservation easement area to ensure that there will be no conflicts with the conservation easement language. Please forward a copy of the existing power line easement to Bob Gable, Scenic Rivers Program Manager, at 2045 Morse Rd., Bldg. A-3, Columbus, Ohio 43229 or bob.gable@dnr.state.oh.us. Upon receipt of the appropriate documentation the Scenic Rivers Program will review the power line easement/right of way for any possible conflicts with the conservation easement existing over this property. In regard to the Olentangy Scenic River crossing and crossing of the Jones/Logan Scenic River Easement, it is our understanding that these will be accomplished by placing additional lines on pre-existing structures or new structures located off the property/river. The Scenic Rivers Program prefers this method of installation as it reduces the need for clearing of additional riparian forest buffer along the Olentangy River.
- 2. The primary concern with the project is the future threat of any stream bank erosion threatening the existing structures and the clearing of vegetation along the banks of the Olentangy State Scenic River. Although the letter states that "....no in-water work or additional tree clearing is proposed at this time...", every attempt should be made to keep all existing vegetation in place and equipment out of the river. If equipment in the stream becomes necessary, a mussel survey and relocation will be requested to protect the highly sensitive species in the Olentangy State Scenic River. If additional tree clearing is necessary, low growing native shrubs and trees (underneath transmission lines) should be planted to provide some form of a riparian buffer at stream crossings. Scenic Rivers Program staff can assist AEP and URS in regard to determining which species may be most appropriate for crossings of the Olentangy State Scenic River.
- 3. It is stated that during the project it is "...not expected to be necessary for major equipment to cross the easement or the Olentangy State Scenic River due to the use of cable messenger stringing methods." If the project does end up requiring the use major equipment crossing at the Jones/Logan Easement, it is the responsibility of URS and AEP to contact Scenic Rivers Program staff to seek additional review and approval as soon as possible.
- 4. If project mitigation is required, the Scenic Rivers Program would like to request that mitigation be implemented within the Olentangy River corridor. Acceptable forms of mitigation include riparian forest protection, wetland protection, riparian restoration through tree and shrub planting or stream restoration.

For questions pertaining to the Scenic Rivers Program, please contact Bob Gable at 614-265-6814

Parks and Recreation: The Division of Parks and Recreation has the following comments.

By the information provided it appears a portion of the proposed work will take place within Alum Creek State Park. The provided documentation states three structure replacements will occur within the park; however, it is expected that all work will be completed within the existing right-of-way. The information also states that the design is not complete. Please contact the Division's Real Estate Manager, Jayne Maxwell, to determine if a real estate agreement is necessary for this work; she can be reached at 614-265-6512. If an agreement is necessary all items will be addressed in the agreement and neither work nor construction equipment may take place on the Division's property until the agreement is fully executed; this process may take up to six months.

Please keep the park informed of any changes or updates to the project by contacting District Manager Victor Ricks at 740-548-4631.

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler, P.E. Environmental Services Administrator Office of Real Estate Ohio Department of Natural Resources 2045 Morse Rd., Columbus, OH 43229-6605



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / FAX (614) 416-8994

December 18, 2012

URS Corporation Attn: Allan Hale 525 Vine Street, Suite 1800 Cincinnati, OH 45202 Tails No. 03E15000-2013-TA-0282

Reference: Trent-Delaware Second 138kV Circuit Project, Delaware County Ohio

Dear Mr. Hale,

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. Based on the information you have provided, at this time we have no objection to the proposed project.

ENDANGERED SPECIES COMMENTS: Due to the project type, size, and location, we do not anticipate any impact on federally listed endangered, threatened, or candidate species, or their habitats. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

If you have additional questions or require further assistance with your project proposal, please contact me at the following number (614) 416-8993, x12. I would be happy to discuss the project in further detail with you and provide additional assistance if necessary. In addition, you can find more information on natural resources in Ohio, and a county list of federally threatened and endangered species in Ohio, by visiting our homepage at: http://www.fws.gov/midwest/ohio.

Sincerely,

Mary Knapp, Ph.D. Field Supervisor

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Case No(s). 13-0171-EL-BLN

Summary: Letter of Notification Trent-Delaware 138kV line Improvement Project - Part 2 electronically filed by Mr. Yazen Alami on behalf of AEP Ohio Transmission Company