# APPENDIX 7-1 Photographs of Aquatic Resources



Stream 1: Downstream, Looking East







Stream 3: Upstream, Looking North



Stream 3: Downstream, Looking South



Dayton Power & Light February 2015



Stream 4: Downstream, Looking West



Stream 5: Upstream, Looking North



Stream 5: Downstream, Looking South









## APPENDIX 7-2 Ohio EPA HHEI and QHEI Stream Assessment Forms

# ChieFPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

36

SITE NAME/LOCATION Stream 1	
SITE NUMBER RIVER BASIN Great Miami DRAINAGE AREA (mi <sup>2</sup> )	0.25
LENGTH OF STREAM REACH (ft)LAT. 39.95103 LONG84.35072 RIVER CODE RIVER MILE	
DATE 10/06/14 SCORER TER COMMENTS Channelized Drainage Ditch	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL □ NONE / NATURAL CHANNEL □ RECOVERED □ RECOVERING □ RECENT OR NO RE MODIFICATIONS:	COVERY
1.       SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         TYPE       BLDR SLABS [16 pts]       0%       SILT [3 pt]       PERCENT         BUDR SLABS [16 pts]       0%       SILT [3 pt]       0%       0%         BUDR SLABS [16 pts]       0%       SILT [3 pt]       0%       0%         BUDR SLABS [16 pts]       0%       SILT [3 pt]       0%       0%         BUDR SLABS [16 pts]       0%       0%       SILT [3 pt]       0%         BUDR SLABS [16 pts]       0%       0%       SILT [3 pt]       0%         BUDR SLABS [16 pts]       0%       0%       SILT [3 pt]       0%         BUDR SLABS [16 pts]       0%       0%       0%       0%       0%         BUDR SLABS [16 pts]       0%       0%       0%       0%       0%       0%         COBBLE (65-256 mm) [12 pts]       0%       0%       0%       0%       0%       0%       0%       0%       0%         SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40 16 A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plung pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]  NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
$ = 3.0 \text{ m} - 4.0 \text{ m} (> 9' 7'' - 13') [25 \text{ pts}] \le 1.5 \text{ m} - 3.0 \text{ m} (> 9' 7'' - 4' 8'') [20 \text{ pts}] \le 1.0 \text{ m} (<=3' 3'') [5 \text{ pts}] $	
COMMENTS AVERAGE BANKFULL WIDTH (meters): 2.10	20
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY	
<u>L R</u> (Per Bank) <u>L R</u> (Most Predominant per Bank) <u>L R</u>	
Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	
Image: Narrow <5m	Crop
None Fenced Pasture Mining or Construction	n
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):         Stream Flowing         Subsurface flow with isolated pools (Interstitial)         COMMENTS	nt)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):         None       1.0       2.0       3.0         0.5       1.5       2.5       3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft)	t/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must A	so be Completed):		
QHEI PERFORMED? - Yes 🖌 No QHEI Score	(If Yes, Attach Co	ompleted QHEI Form)	
DOWNSTREAM DESIGNATED USE(S)			
WWH Name:	Di	stance from Evaluated Stream	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>
CWH Name:	Dis	stance from Evaluated Stream	
EWH Name: Stillwater River	Dis	stance from Evaluated Stream	1.79
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHED ARE	A. CLEARLY MARK THE SIT	
USGS Quadrangle Name: West Milton	NRCS Soil Map Page:	NRCS Soil Map Stre	am Order
County: Miami Tow	nship / City: <b>Union</b>		
MISCELLANEOUS			
Base Flow Conditions? (Y/N): Date of last precipitation:	10/06/14	Quantity: <b>0.03</b>	
Photograph Information: _See Photograph Appendix			
Elevated Turbidity? (Y/N): N Canopy (% open): 5	)%		
Were samples collected for water chemistry? (Y/N): (Note	ab sample no. or id. and a	ttach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream $(Y/N)$ If n	ot, please explain:		
Additional comments/description of pollution impacts:			
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Vouc ID number. Include appropriate field d Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquin Comments Regarding Biology:	her collections optional. NO ata sheets from the Primary Observed? (Y/N) N Natic Macroinvertebrates O	TE: all voucher samples must b Headwater Habitat Assessment /oucher? (Y/N) bserved? (Y/N) N	e labeled with the site Manual) r? (Y/N) <mark>N</mark>

#### DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

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





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

50

SITE NAME/LOCATION Stream 2	
SITE NUMBER RIVER BASIN Great Miami DRAINAGE AREA (mi²) 0.2	25
LENGTH OF STREAM REACH (ft) 106 LAT. 39.96731 LONG84.35123 RIVER CODE RIVER MILE	
DATE 10/06/14 SCORER TER COMMENTS Channelized Drainage Ditch	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	ctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING	VERY
1.       SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       10%         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       10%         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       10%         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       10%         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       10%         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       10%         BUDR SLABS [16 pts]       0%       Image: Sill T [3 pt]       0%         BEDROCK [16 pt]       0%       Image: Sill T [3 pt]       0%         Image: Sill Close (65-256 mm) [12 pts]       0%       Image: Sill T [3 pt]       0%         Image: Sill Close (2-64 mm) [9 pts]       20%       Image: Sill Close (0 pts]       0%         Image: Sill Close (2 mm) [6 pts]       20%       Image: Sill Sill Sill Sill Sill Sill Sill Sil	HHEI Metric Points Substrate Max = 40 25 A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
<ul> <li>2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONL Y one box):</li> <li>&gt; 30 centimeters [20 pts]</li> <li>&gt; 22.5 - 30 cm [30 pts]</li> <li>&gt; 10 - 22.5 cm [25 pts]</li> <li>&gt; 10 - 22.5 cm [25 pts]</li> <li>&gt; NO WATER OR MOIST CHANNEL [0 pts]</li> </ul>	Pool Depth Max = 30
	Development
3.       BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Cneck ONLY one box): $4.0 \text{ meters} (> 13') [30 \text{ pts}]$ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 \text{ pts}] $3.0 \text{ m} - 4.0 \text{ m} (> 9' 7" - 13') [25 \text{ pts}]$ > 1.0 m (<=3' 3") [5 \text{ pts}]         > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 \text{ pts}] $4.0 \text{ m} (<=3' 3") [5 \text{ pts}]$	Width Max=30
COMMENTS AVERAGE BANKFULL WIDTH (meters): 3.50	25
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R       (Per Bank)       L R       (Most Predominant per Bank)       L R         Wide >10m       Mature Forest, Wetland       Conservation Tillage         Volde >10m       Immature Forest, Shrub or Old       Urban or Industrial	
Narrow <5m	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):         Stream Flowing         Subsurface flow with isolated pools (Interstitial)         COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0       2.0       3.0         0.5       1.5       2.5       3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate I Moderate (2 ft/100 ft) Moderate to Severe I Severe (10 ft/100	ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	_ Distance from Evaluated Stream
CWH Name:	_ Distance from Evaluated Stream
EWH Name: Stillwater River	Distance from Evaluated Stream1.61
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEI	DAREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: West Milton NRCS Soil Map F	Page: NRCS Soil Map Stream Order
County: Miami Township / City: Union	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 10/06/14	Quantity: 0.03
Photograph Information: See Photograph Appendix	
Elevated Turbidity? (Y/N): Canopy (% open): 20%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. a	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optiona ID number _ loclude appropriate field data cheets from the Pri	I. NOTE: all voucher samples must be labeled with the site
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebra	Voucher? (Y/N) N tes Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	

#### DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

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



# ChieEPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

45

SITE NAME/LOCATION Stream 3	
SITE NUMBER RIVER BASIN Great Miami DRAINAGE AREA (mi²)	0.15
LENGTH OF STREAM REACH (ft) 200 LAT. 39.99503 LONG84.31362 RIVER CODE RIVER MILE	
DATE 10/06/14 SCORER TER COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	structions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RE	ECOVERY
1.       SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE         BOULDER (>256 mm) [16 pts]       0%       EAF PACK/WOODY DEBRIS [3 pts]       0%         BEDROCK [16 pt]       0%       EAF PACK/WOODY DEBRIS [3 pts]       0%         COBBLE (65-256 mm) [12 pts]       0%       EAF PACK/WOODY DEBRIS [3 pts]       0%         GRAVEL (2-64 mm) [9 pts]       30%       CLAY or HARDPAN [0 pt]       0%         SAND (<2 mm) [6 pts]	HHEI Metric Points Substrate Max = 40 25 A + B
<ul> <li>2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):</li> <li>&gt; 30 centimeters [20 pts]</li> <li>&gt; 5 cm - 10 cm [15 pts]</li> </ul>	Pool Depth Max = 30
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] ✓ NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ON/ Yone box):	Bankfull
> 4.0 meters (> 13') [30 pts]             > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] $\leq$ 1.0 m (<=3' 3") [5 pts] $\leq$ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS AVERAGE BANKFULL WIDTH (meters): 3.50	20
This information much do a second state	
RIPARIAN ZONE AND FLOODPLAIN QUALITY 차NOTE: River Left (L) and Right (R) as looking downstream ☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	
Narrow <5m Residential, Park, New Field Open Pasture, Row (	Crop
None         Fenced Pasture         Mining or Construction           COMMENTS         culerted stream coming from drain tiles         Comment	n
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):         Stream Flowing         Subsurface flow with isolated pools (Interstitial)         COMMENTS	nt)
SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0       2.0       3.0         0.5       1.5       2.5       3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate (2 ft/100 ft) Moderate (2 ft/100 ft) Severe (10 ft)	ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Yes 🖌 No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	_ Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name: Stillwater River	Distance from Evaluated Stream0.09
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	DAREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: West Milton NRCS Soil Map P	Page: NRCS Soil Map Stream Order
County: Miami Township / City: Union	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation:10/06/14	Quantity: <b>0.03</b>
Photograph Information: See Photograph Appendix	
Elevated Turbidity? (Y/N): _ Canopy (% open): 20%	
Were samples collected for water chemistry? (Y/N): _N (Note lab sample no. or id. a	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional	I. NOTE: all voucher samples must be labeled with the site
ID number.       Include appropriate field data sheets from the Pri         Fish Observed? (Y/N)       N       Voucher? (Y/N)       N       Salamanders Observed? (Y/N)       N         Frogs or Tadpoles Observed? (Y/N)       N       Voucher? (Y/N)       N       Aquatic Macroinvertebrat	mary Headwater Habitat Assessment Manual) Voucher? (Y/N) tes Observed? (Y/N)
Comments Regarding Biology:	
·	

#### DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):

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





# ChieEPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

70

SITE NAME/LOCATION Stream 4	
SITE NUMBER RIVER BASIN Great Miami DRAINAGE ARE	EA (mi²) <b>0.50</b>
LENGTH OF STREAM REACH (ft) 200 LAT. 39.99781 LONG84.30382 RIVER CODE RIVE	R MILE
DATE 10/06/14 SCORER TER COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams"	' for Instructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OF MODIFICATIONS:	R NO RECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYP	<i>E</i> boxes
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A &	B. HHEI NT Metric
BLDR SLABS [16 pts]         0%         SILT [3 pt]         10%	Points
BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Substrate
□         COBBLE (65-256 mm) [12 pts]         30%         □         CLAY or HARDPAN [0 pt]         0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0%	25
SAND (<2 mm) [6 pts]	
Total of Percentages of <b>30.00%</b> (A) Substrate Percentage (B) Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES:	4
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the tim	ne of Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters):	20
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
$ = > 4.0 \text{ meters} (> 13') [30 \text{ pts}] $ $ > 3.0 \text{ m} - 4.0 \text{ m} (> 9' 7" - 13') [25 \text{ pts}] $ $ > 1.0 \text{ m} (-3' 3") [5 \text{ pts}] $ $ \le 1.0 \text{ m} (<=3' 3") [5 \text{ pts}] $	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTSAVERAGE BANKFULL WIDTH (meters)	2.80 20
	ream√y
RIPARIAN WIDTH     FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	Tillage
Moderate 5-10m	ustrial
Field Field Open Pastur	e, Row Crop
	Instruction
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (In	ntermittent)
COMMENTS	
<b>SINUOSITY</b> (Number of ben <u>ds</u> per 61 m (200 ft) of channel) (Check ONLY one box):	
$\square None \qquad \square 1.0 \qquad \square 2.0 \qquad \square 3.0 \\ 1.5 \qquad \square 2.5 \qquad \square 3.0 \\ 2.5 \qquad \square 3.0 \\ 3.0 \qquad \square 3.0 \\ 3$	
STREAM GRADIENT ESTIMATE         Flat (0.5 ft/100 ft)       Flat to Moderate         Moderate (2 ft/100 ft)       Moderate to Severe	vere (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	_ Distance from Evaluated Stream
CWH Name:	_ Distance from Evaluated Stream
EWH Name: Stillwater River	Distance from Evaluated Stream0.61
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEI	DAREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: West Milton NRCS Soil Map F	Page: NRCS Soil Map Stream Order
County: Miami Township / City: Union	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:10/06/14	Quantity: 0.03
Photograph Information: See Photograph Appendix	
Elevated Turbidity? (Y/N): N Canopy (% open): 20%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Pr	I. NOTE: all voucher samples must be labeled with the site imary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebra	tes Observed? (Y/N)
Comments Regarding Biology:	

#### DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

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



pdf Reset Form

<b>ChieEPA</b>	Qualitative Habit and Use Assess	at Evaluation Index ment Field Sheet	CHEI Scol	re: 69
Stream & Location, Stream 5			RM:Date	<u>£10/_6/</u> 14
Stillwater River	Scorei	rs Full Name & Affiliation: <u>-</u>		
<i>River Code:</i>		<i>Lat./ Long.:</i> 39.99456	6/-84.31584	Office verified location
1] SUBSTRATE Check OWLYTwo sestimate % or note BEST TYPES POOL RIFFL BLDR /SLABS [10] 5 BOULDER [9] 10 10 COBBLE [8] 30 30 GRAVEL [7] 5 5 SAND [6] 20 20 BEDROCK [5] NUMBER OF BEST TYPES: Comments	Substrate TYPE BOXES; every type present CTHER TYPES POO HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] SILT [2] ARTIFICIAL [0] (Score natural substra 4 or more [2] sludge from poir 3 or less [0]	Check C ORIGIN LIMESTONE [1] TILLS [1] WETLANDS [0] 30 HARDPAN [0] SANDSTONE [0] ates; ignore RIP/RAP [0] LACUSTURINE [0] SHALE [-1] COAL FINES [-2]	DNE (Or 2 & average) QUA HEAVY SILT MODER FREE [1 EXTENS ODEO EXTENS NORMA NORE [	LITY [-2] ATE [-1] SUbstrate SIVE [-2] ATE [-1] ATE [-1] Maximum 20
2] ///STREAM COVER Indicate pr quality; 2- quality; 3-Highest quality in moderate of diameter log that is stable, well develop UNDERCUT BANKS [1] 3 OVERHANGING VEGETATION [ SHALLOWS (IN SLOW WATER) 2 ROOTMATS [1] Comments	resence 0 to 3: <b>0</b> -Absent; <b>1</b> -Ver Moderate amounts, but not of h or greater amounts (e.g., very la bed rootwad in deep / fast wate 3 POOLS > 70cm [2 [1] 1 ROOTWADS [1] 1 BOULDERS [1]	y small amounts or if more commo ighest quality or in small amounts irge boulders in deep or fast water r, or deep, well-defined, functional OXBOWS, BACKWATE 2 AQUATIC MACROPHY 2 LOGS OR WOODY DEE	of highest of highest harge Check ONE ( pools. EXTENSIV RS [1] MODERAT TES [1] SPARSE 5- BRIS [1] NEARLY A	DUNT Or 2 & average) E >75% [11] E 25-75% [7] -<25% [3] BSENT <5% [1] Cover Maximum 20
3] CHANNEL MORPHOLOGY CONSTRUCT         SINUOSITY         HIGH [4]         MODERATE [3]         LOW [2]         NONE [1]         POOR [1]         Comments	heck ONE in each category (0 NT CHANNELIZATI [7] INONE [6] RECOVERED [4] RECOVERING [3] RECENT OR NO REC	r 2 & average) ON STABILITY HIGH [3] MODERATE [2] LOW [1] COVERY [1]		Channel Maximum 20
4] BANK EROSION AND RIPA. River right looking downstream EROSION NONE / LITTLE [3] MODERATE [2] HEAVY / SEVERE [1] Comments residential and agricultural land uses bey	RIAN ZONE Check ONE in PARIAN WIDTH         E > 50m [4]         DERATE 10-50m [3]         DERATE 10-50m [3]         DERATE 10-50m [1]         DERATE 10-50m [2]         PARIAN WIDTH         ROW 5-10m [2]         PARIAN WIDTH         E > 50m [4]         DERATE 10-50m [3]         DERATE 10-50m [3]         DERATE 10-50m [3]         DERATE 10-50m [1]         PARIAN         YNARROW < 5m [1]	each category for <i>EACH BANK</i> (O FLOOD PLAIN QUALI FOREST, SWAMP [3] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FIELD FENCED PASTURE [1] DPEN PASTURE, ROWCROP [0]	r 2 per bank & average) TY R CONSERVATI C URBAN OR IN TI	ON TILLAGE [1] NDUSTRIAL [0] ISTRUCTION [0] Iand use(s) <i>Riparian</i> Maximum 10
5] <i>POOL / GLIDE AND RIFFLE</i> MAXIMUM DEPTH CH Check ONE ( <i>ONLY</i> !) Check	Image: Provide the state of the state o	CURRENT VELOCITY Check ALL that apply TORRENTIAL [-1] SLOW [1] VERY FAST [1] INTERSTIT FAST [1] INTERMIT MODERATE [1] EDDIES [1 Indicate for reach - pools and rit	FIAL [-1] TENT [-2] ] ffles.	Pon Potential Ary Contact comment on back) Pool / Current Maximum 12
Indicate for functional riffle of riffle-obligate species: RIFFLE DEPTH RUI BEST AREAS > 10cm [2] MAXIN BEST AREAS 5-10cm [1] MAXIN BEST AREAS < 5cm [metric=0] Comments	es; Best areas must be Check ONE N DEPTH RIFFLE //UM > 50cm [2]	large enough to support (Or 2 & average). / RUN SUBSTRATE RIFI e.g., Cobble, Boulder) [2] .BLE (e.g., Large Gravel) [1] E (e.g., Fine Gravel, Sand) [0]	a population	RIFFLE [metric=0]         DEDNESS         I         Riffle         Run         Maximum         8
6] <i>GRADIENT</i> (8 ft/mi) □ DRAINAGE AREA □ (601 mi <sup>2</sup> ) □	VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]	%POOL:20 %RUN: 60	%GLIDE: %RIFFLE:(20)	Gradient Maximum 10

Comment RE: Reach consistency/Is reach typical of steam?, Recreation/Observed - Inferred, Other/Sampling observations, Concerns, Access directions, etc. AI SAMPLED REACH Check ALL that apply METHOD STAGE 1st -sample pass- 2nd **BOAT** ☐ HIGH WADE L. LINE NORMAL OTHER LOW DISTANCE П 0.5 Km **CLARITY B**|AESTHETICS D] MAINTENANCE FI MEASUREMENTS ETISSUES Circle some & COMMENT 0.2 Km 1st --sample pass-- 2nd WWTP / CSO / NPDES / INDUSTRY **NUISANCE ALGAE** PUBLIC / PRIVATE / BOTH / NA x width 0.15 Km 🗆 < 20 cm ☐ INVASIVE MACROPHYTES ACTIVE / HISTORIC / BOTH / NA HARDENED / URBAN / DIRT&GRIME x depth 0.12 Km ■ 20-<40 cm □ EXCESS TURBIDITY YOUNG-SUCCESSION-OLD **CONTAMINATED / LANDFILL** OTHER max. depth 🗆 40-70 cm **DISCOLORATION** SPRAY / SNAG / REMOVED **BMPs-CONSTRUCTION-SEDIMENT** x bankfull width □ > 70 cm/ CTB FOAM / SCUM MODIFIED / DIPPED OUT / NA LOGGING / IRRIGATION / COOLING bankfull x depth SECCHI DEPTH meters □ OIL SHEEN LEVEED / ONE SIDED **BANK / EROSION / SURFACE** W/D ratio TRASH / LITTER **RELOCATED / CUTOFFS** FALSE BANK / MANURE / LAGOON CANOPY 1st cm bankfull max. depth **NUISANCE ODOR MOVING-BEDLOAD-STABLE** WASH H<sub>2</sub>0 / TILE / H<sub>2</sub>0 TABLE pass > 85%- OPEN floodprone x<sup>2</sup> width □ SLUDGE DEPOSITS **ARMOURED / SLUMPS** ACID / MINE / QUARRY / FLOW **55%-<85%** 2nd cm entrench. ratio CSOs/SSOs/OUTFALLS **ISLANDS / SCOURED** NATURAL / WETLAND / STAGNANT □ 30%-<55% **IMPOUNDED / DESICCATED** PARK / GOLF / LAWN / HOME Legacy Tree: □ 10%-<30% AREA DEPTH CI RECREATION **FLOOD CONTROL / DRAINAGE ATMOSPHERE / DATA PAUCITY** *POOL*; □ >100ft<sup>2</sup> □ >3ft <10%- CLOSED</p> Stream Drawing: XISTINC 1-line Bridge RI no.D. Run BURN flow

## **APPENDIX 7-3**

Wetland Data Forms -USACE Forms and Ohio Rapid Assessment Forms

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site West Milton - Eldean Transmission Line F	vroje City/0	County: Gree	ntown/Howa	rd County Sampling Date:	10/6/14
Applicant/Owner: Dayton Power and Light		State:	Ohic	Sampling Point:	Wetland A - Wet In
Investigator(s): Tyler Rankin/Geoffrey Palmer		Sectio	on, Township	o, Range: S29	)/T6N/R5E
Landform (hillslope, terrace, etc.):	асе	Local re	elief (concav	e, convex, none):	concave
Slope (%): 0 Lat: 39.939671		Long:	-84.3331 <i>′</i>	19 Datum:	NAD 83
Soil Map Unit Name MoA - Millsdale silty clay loam, 0	to 2 percent	t slopes	NWI (	Classification:	PEM
Are climatic/hydrologic conditions of the site typical for	r this time o	f the year?	Y (I	f no, explain in remarks)	
Are vegetation , soil, or hydrol	ogy	significantly	disturbed?	Are "normal circu	umstances"
Are vegetation , soil , or hydrol	ogy	naturally pro	oblematic?		present? Yes
SUMMARY OF FINDINGS				(If needed, explain any a	nswers in remarks.)
Hydrophytic vegetation present? Y					
Hydric soil present? Y	_	Is the sa	ampled area	a within a wetland?	Y
Indicators of wetland hydrology present? Y		f yes, opt	tional wetlan	d site ID: Wetland A	\
Remarks: (Explain alternative procedures here or in a	separate re	eport.)			
		F · · ,			
VEGETATION Use scientific names of plan	ts.				
	Absolute	Dominan	Indicator	Dominance Test Works	heet
Tree Stratum (Plot size: 30')	% Cover	t Species	Staus	Number of Dominant Spec	ies
1 Salix nigra	5	Y	OBL	that are OBL, FACW, or FA	AC: 4 (A)
2 Ulmus Americana	5	Υ	FACW	Total Number of Domin	ant
3		·		Species Across all Stra	ata: <u>4</u> (B)
4 5		·		Percent of Dominant Spec	ies
· · · · · · · · · · · · · · · · · · ·	10 :	= Total Cover			
Sapl <u>ing/Shrub stratum</u> (Plot size: 15')				Prevalence Index Work	sheet
1 Cornus alba	10	Y	FACW	Total % Cover of:	
2				OBL species 20	x 1 =20
3				FACW species 100	x 2 = <u>200</u>
4		·		FAC species 5	$x^3 = \frac{15}{2}$
5	10	- Total Cover		HACU Species U	x 4 = 0
Herb stratum (Plot size: 5')				Column totals 125	(A) 235 (B)
1 Phalaris arundinacea	80	Y	FACW	Prevalence Index = $B/A$ =	= 1.88
2 Tvpha angustifolia	15	·	OBL		- 1.00
3 Impatiens capensis	5	Ν	FACW	Hydrophytic Vegetation	Indicators:
4 Apocynum cannabinum	5	Ν	FAC	Rapid test for hydrop	hytic vegetation
5		,		X Dominance test is >5	50%
6				X Prevalence index is :	≤3.0*
7		·		Morphogical adaptati	ons* (provide
8		·		supporting data in Re	emarks or on a
10		·		Problematic hydroph	vtic vegetation*
	105 -	= Total Cover		(explain)	yllo vogotallori
Woody vine stratum (Plot size: 15')				*Indicators of hydric soil and	wetland hydrology must be
1				present, unless distur	bed or problematic
2		,		Hydrophytic	
	0 =	= Total Cover		vegetation	,
Demosition (Include shots sumbers have as as a constru					
Remarks: (Include photo numbers here of on a separa	ate sneet)				

#### SOIL

Profile Des	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Depth Matrix Redox Features									
(Inches)	Color (moist)	%	Color (mo	ist)	%	Type*	Loc**	Texture	9	Remarks
0-4	10 YR 3/2	100	None					Silt Loam		
1 10	Cloy 2 5/10V	<u>00</u>	10 VP 2	/6	20	C	N4	Silt Loom		
4-10	Gley 2.5/101	00	IUTRO	0	20	C	IVI	Sill Loam		
*Type: C = C	Concentration, D =	= Depleti	on, RM = Re	educe	ed Matrix	, MS = N	lasked S	and Grains.	**Location:	PL = Pore Lining, M = Matrix
Hydric So	il Indicators:							Indicators f	for Problen	natic Hydric Soils:
Hist	tisol (A1)			Sar	dy Gleye	ed Matrix	(S4)	Coast F	Prairie Redo	ox (A16) ( <b>LRR K, L, R</b> )
Hist	tic Epipedon (A2)			Sar	dy Redo	x (S5)		Dark Su	urface (S7)	(LRR K, L)
Blac	ck Histic (A3)			Stri	pped Ma	trix (S6)		Iron-Ma	inganese M	asses (F12) ( <b>LRR K, L, R</b> )
Hyc	Irogen Sulfide (A4	4)		Loa	my Muck	ky Minera	al (F1)	Very Sh	nallow Dark	Surface (TF12)
Stra	atified Layers (A5)	)	X	Loa	my Gley	ed Matrix	k (F2)	Other (e	explain in re	emarks)
2 cr	m Muck (A10)			Dep	leted Ma	atrix (F3)				
Dep	leted Below Dark	Surface	e (A11)	Red	lox Dark	Surface	(F6)			
Thic	ck Dark Surface (	A12)	· /	Dep	leted Da	ark Surfa	ce (F7)	*Indicator	rs of hvdror	phytic vegetation and weltand
Sar	dy Mucky Minera	ıl (S1)		Red	lox Depr	essions (	(F8)	hydrolog	gy must be	present, unless disturbed or
5 cr	m Mucky Peat or	Peat (S3	.)	-	•		· · ·	, , ,	pi pi	roblematic
Postrictivo	l avor (if obsorv	, ad).	,				1		-	
Type		eu).						Hydric co	il procont?	~
Type. Dopth (inch	);					-		Tryunc so	in present :	
Deptil (illene						-				
Remarks:										
HYDROLO	DGY									
Wetland Hy	drology Indicate	ors:								
Primary Indi	cators (minimum	of one is	required; ch	neck	all that a	(ylqq		Seco	ndarv Indica	ators (minimum of two required)
X Surface	Water (A1)				Aquatic	Fauna (B	(13)		Surface Sc	oil Cracks (B6)
High Wa	ater Table (A2)				True Aqu	uatic Plar	nts (B14)	X	Drainage F	Patterns (B10)
X Saturatio	on (A3)				Hydroge	n Sulfide	Odor (C	1)	Dry-Seaso	n Water Table (C2)
Water M	larks (B1)				Oxidized	l Rhizosp	heres on	Living Roots X	Crayfish Bu	urrows (C8)
Sedimer	nt Deposits (B2)				(C3)				Saturation	Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)				Presenc	e of Redu	uced Iron	(C4)	Stunted or	Stressed Plants (D1)
X Algal Ma	at or Crust (B4)				Recent I	ron Redu	iction in T	illed Soils X	Geomorphi	ic Position (D2)
X Iron Dep	osits (B5)				(C6)			Х	FAC-Neutr	al Test (D5)
X Inundation	on Visible on Aeria	al Imager	y (B7)		Thin Mu	ck Surfac	e (C7)		-	
X Sparsely	Vegetated Conca	ve Surfa	ce (B8)		Gauge o	or Well Da	ata (D9)			
X Water-S	tained Leaves (B9	)			Other (E	xplain in	Remarks	)		
Field Obser	vations:									
Surface wat	er present?	Yes	<u> </u>	No		Depth (i	nches):	3		
Water table	present?	Yes		No	X	Depth (i	nches):		Indic	cators of wetland
Saturation p	resent?	Yes	<u> </u>	No		Depth (i	nches):	6	hyd	rology present? Y
(includes ca	pillary fringe)									
Describe rec	corded data (strea	am gauge	e, monitoring	y well	, aerial p	hotos, p	revious i	nspections), if ava	ailable:	
Remarks:										

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site West Milton - Eldean Transmission Line Proje City	y/County: Gree	ntown/Howa	ard County Sampling Date:	10/6/14
Applicant/Owner: Dayton Power and Light	State:	Ohio	Sampling Point:	Wetland A - Wet Out
Investigator(s): Tyler Rankin/Geoffrey Palmer	Section, Township, Range: S29/T6N/R5E			
Landform (hillslope, terrace, etc.): Terrace	Local r	elief (concav	ve, convex, none):	None
Slope (%): 0 Lat: 39.939962	Long:	-84.3334	36 Datum:	NAD 83
Soil Map Unit Name MoA - Millsdale silty clay loam, 0 to 2 perce	ent slopes	NWI	Classification:	None
Are climatic/hydrologic conditions of the site typical for this time	of the year?	Y (I	f no, explain in remarks)	
Are vegetation , soil , or hydrology	significantly	disturbed?	Are "normal circ	umstances"
Are vegetation , soil , or hydrology	naturally pr	oblematic?		present? Yes
SUMMARY OF FINDINGS	_		(If needed, explain any a	inswers in remarks.)
Hydrophytic vegetation present? N				
Hydric soil present? N	Is the s	ampled area	a within a wetland?	N
Indicators of wetland hydrology present? N	f yes, op	tional wetlar	nd site ID:	
Remarks: (Explain alternative procedures here or in a separate	report.)			
VEGETATION Use scientific names of plants				
Absolute	Dominan	Indicator	Dominance Test Works	sheet
Tree Stratum (Plot size: 30') % Cover	r t Species	Staus	Number of Dominant Spec	cies
1			that are OBL, FACW, or F	AC: 0 (A)
2			Total Number of Domin	nant
3			Species Across all Stra	ata: <u> </u>
4			Percent of Dominant Spec	cies
<u> </u>	- Total Cover		INAL ARE ODE, FACIN, OF F	AC: 0.00% (A/B)
Sapling/Shrub stratum (Plot size: 15')			Prevalence Index Work	sheet
1			Total % Cover of:	
2			OBL species 0	x 1 =0
3			FACW species 0	x 2 = 0
4			FAC species 0	$x^{3} = 0$
5	- Total Covor		FACU species 100	x 4 = 400
Herb stratum (Plot size: 5')			Column totals 100	(A) = 0 (B)
1 Poa annua 40	Y	FACU	Prevalence Index = $B/A$	= 4.00
2 Viola canadensis 20	- <u>·</u>	FACU		
3 Plantago lanceolata 20	Y	FACU	Hydrophytic Vegetation	n Indicators:
4 Trifolium repens 20	Y	FACU	Rapid test for hydror	ohytic vegetation
5			Dominance test is >	50%
<u>6</u>			Prevalence index is	≤3.0*
/			Morphogical adaptat	ions* (provide
9			supporting data in R separate sheet)	emarks or on a
10			Problematic hydroph	vtic vegetation*
100	= Total Cover		(explain)	ij no regenanom
Woody vine stratum (Plot size: 15')	_		*Indicators of hydric soil and	wetland hydrology must be
1			present, unless distu	rbed or problematic
2			Hydrophytic	
0	= Total Cover	•	present?	J
Remarks: (Include photo numbers here or on a congrate chect)				

#### SOIL

Depth	cription. (Desci		e depth needed	το αοςμ	ment the	e indicat	or or confirm the	e absence of indicators.)					
	Matrix	Red	dox Featu	ures			,						
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks					
0-18	10 YR 4/3	90	10 YR 4/2	10	RM	М	Silt Loam						
0.10	10 11( 4/0		10 11( 4/2	10	T (IVI	101	One Loann						
*Type: C = 0	Concentration, D	= Depleti	on, RM = Reduce	ed Matrix	, MS = N	lasked S	and Grains.	**Location: PL = Pore Lining, M = Ma	atrix				
Hydric So	oil Indicators:						Indicators for	or Problematic Hydric Soils:					
His	tisol (A1)		Sar	dy Gleye	ed Matrix	: (S4)	Coast P	rairie Redox (A16) (LRR K, L, R)					
His	tic Epipedon (A2)		Sar	idy Redo	x (S5)	Dark Surface (S7) (LRR K, L)							
Bla	ck Histic (A3)		Stri	pped Ma	trix (S6)		Iron-Mar	nganese Masses (F12) ( <b>LRR K, L, R</b>	2)				
Hyd	drogen Sulfide (A	4)	Loa	my Muck	ky Minera	al (F1)	Very Sh	allow Dark Surface (TF12)					
Stra	atified Layers (A5	)	Loa	my Gley	ed Matrix	(F2)	Other (e	xplain in remarks)					
2 c	m Muck (A10)		Dep	leted Ma	atrix (F3)								
Dep	pleted Below Darl	< Surface	e (A11) Rec	lox Dark	Surface	(F6)							
Thi	ck Dark Surface (	A12)	Dep	leted Da	rk Surfa	ce (F7)	*Indicator	s of hydrophytic vegetation and welta	and				
Sar	ndy Mucky Minera	al (S1)	Rec	lox Depr	essions (	(F8)	hydrolog	y must be present, unless disturbed	or				
5 c	m Mucky Peat or	Peat (S3	3)					problematic					
Restrictive	Laver (if observ	ed).				1							
Type <sup>.</sup>		cu).					Hydric soi	Inresent? N					
Depth (inch	<i>ae)</i> .												
Boptin (inoni													
HYDROL	JGY												
Wetland Hy	drology Indicate	ors:											
Primary Indi	cators (minimum	of one is	required; check	all that a	oply)		Secor	ndary Indicators (minimum of two req	uired)				
Surface	Water (A1)			Aquatic	Fauna (B	13)		Surface Soil Cracks (B6)					
High Wa	ater Table (A2)			Irue Aquatic Plants (B14) Drainage Patterns (B10)									
Saturati	on (A3)			Hydroge	n Sulfide	Odor (C	1)	Dry-Season Water Table (C2)					
Water N	larks (B1)			Oxidized	Rhizosp	heres on	Living Roots	Crayfish Burrows (C8)	201				
Sedimei				(U3)			(04)	Saturation Visible on Aerial Imagery (C	-9)				
	DUSILS (D3)			Presenc	e of Real	uction in T		Comparable Resition (D2)					
Algal Mat or Crust (B4) Recent Iron Red								EAC-Neutral Test (D5)					
I Iron Der	Iron Deposits (B5) (C6) FAC-Neutral Test (D5)							TAO Neutral Test (Do)					
Iron Dep	on Visible on Aeri:	al Imager	Internation Visible of Aeria Integery (D7) Thin Muck Surface (C7)										
Iron Dep Inundati	on Visible on Aeria / Vegetated Conca	al Imager ave Surfa	ce (B8)	Gauge o	IVVEILIZ	Water-Stained Leaves (B9)							
Iron Dep Inundati Sparsely Water-S	on Visible on Aeria / Vegetated Conca tained Leaves (B9	al Imager <u>:</u> ave Surfa ))	ce (B8)	Gauge o Other (E	xplain in	Remarks	)						
Iron Dep Inundati Sparsely Water-S	on Visible on Aeria Vegetated Conca itained Leaves (B9 rvations:	al Imager ave Surfa ))	ce (B8)	Gauge o Other (E	xplain in	Remarks	)						
Iron Dep Inundati Sparsely Water-S Field Obset Surface wat	on Visible on Aeria / Vegetated Conca tained Leaves (BS <b>rvations:</b> er present?	al Imager ave Surfa )) Yes	ce (B8)	Gauge o Other (E	xplain in	Remarks	)						
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table	on Visible on Aeria Vegetated Conca tained Leaves (B9 <b>vations:</b> er present? present?	al Imager ave Surfa )) Yes Yes	ce (B8)	Gauge o Other (E X X	Depth (i	Remarks nches): nches):	)	Indicators of wetland					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p	on Visible on Aeria / Vegetated Conca itained Leaves (BS <b>rvations:</b> er present? present?	al Imager ave Surfa )) Yes Yes Yes	ce (B8)	Gauge o Other (E X X X	Depth (i Depth (i Depth (i	Remarks nches): nches): nches):	)	Indicators of wetland hydrology present? N					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p (includes ca	on Visible on Aeria v Vegetated Conca itained Leaves (BS <b>rvations:</b> er present? present? present? pillary fringe)	al Imager ave Surfa )) Yes Yes Yes	Ce (B8)	Gauge o Other (E X X X	Depth (i Depth (i Depth (i Depth (i	Remarks nches): nches): nches):	)	Indicators of wetland hydrology present? <u>N</u>					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p (includes ca Describe red	on Visible on Aeria / Vegetated Conca itained Leaves (B9 <b>rvations:</b> er present? present? present? pillary fringe) corded data (stream	al Imager ave Surfa )) Yes Yes Yes am gauge	ce (B8) No No No e, monitoring well	Gauge o Other (E X X X , aerial p	Depth (i Depth (i Depth (i Depth (i hotos, pi	Remarks nches): nches): nches): revious ii	)	Indicators of wetland hydrology present? N					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p (includes ca Describe red	on Visible on Aeria / Vegetated Conca tained Leaves (B9 <b>rvations:</b> er present? present? pillary fringe) corded data (strea	al Imager ave Surfa )) Yes Yes Yes am gauge	ce (B8) No No No e, monitoring well	Gauge o Other (E X X , aerial p	Depth (i Depth (i Depth (i Depth (i hotos, pi	Remarks nches): nches): nches): revious in	) 	Indicators of wetland hydrology present? N iilable:					
Iron Dep Inundati Sparsely Water-S Field Obset Surface wat Water table Saturation p (includes ca Describe red	on Visible on Aeria / Vegetated Conca tained Leaves (BS <b>rvations:</b> er present? present? pillary fringe) corded data (strea	al Imager ave Surfa )) Yes Yes Yes am gauge	ce (B8) No No e, monitoring well	Gauge o Other (E X X X , aerial p	Depth (i Depth (i Depth (i Depth (i hotos, pi	Remarks nches): nches): nches): revious in	) 	Indicators of wetland hydrology present? N illable:					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p (includes ca Describe rea	on Visible on Aeria / Vegetated Conca /tained Leaves (B9 <b>rvations:</b> er present? present? pillary fringe) corded data (strea	al Imager ave Surfa )) Yes Yes Yes am gauge	ce (B8)	Gauge o Other (E X X X , aerial p	Depth (i Depth (i Depth (i Depth (i	Remarks nches): nches): nches): revious in	)	Indicators of wetland hydrology present? N					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p (includes ca Describe red Remarks:	on Visible on Aeria / Vegetated Conca itained Leaves (B9 <b>rvations:</b> er present? present? pillary fringe) corded data (strea	al Imager ave Surfa )) Yes Yes Yes am gauge	ce (B8)	Gauge o Other (E X X , aerial p	Depth (i Depth (i Depth (i Depth (i	Remarks nches): nches): nches): revious i	)	Indicators of wetland hydrology present? <u>N</u> illable:					
Iron Dep Inundati Sparsely Water-S Field Obser Surface wat Water table Saturation p (includes ca Describe red Remarks:	on Visible on Aeria / Vegetated Conca tained Leaves (B9 <b>rvations:</b> er present? present? pillary fringe) corded data (strea	al Imager ave Surfa )) Yes Yes Yes am gaug	ce (B8)	Gauge o Other (E X X X , aerial p	Depth (i Depth (i Depth (i Depth (i hotos, pi	Remarks nches): nches): nches): revious in	)	Indicators of wetland hydrology present? <u>N</u> iilable:					

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site West Milton - Eldean Transmission Line Proje Ci	ity/County: Green	ntown/Howa	rd County Sampling Date:	10/6/14		
Applicant/Owner: Dayton Power and Light	State:	Ohic	Sampling Point: We	tland B - Wet In		
Investigator(s): Tyler Rankin/Geoffrey Palmer	Section	Section, Township, Range: S3/T6N/R5E				
Landform (hillslope, terrace, etc.): floodplain	Local re	lief (concav	re, convex, none): co	ncave		
Slope (%): 0 Lat: 39.997935	Long:	-84.30312	22 Datum: N/	AD 83		
Soil Map Unit Name Ee - Eel Silt Loam		NWI C	Classification: PE	M		
Are climatic/hydrologic conditions of the site typical for this time	e of the year?	Y (l	f no, explain in remarks)			
Are vegetation, soil, or hydrology	significantly	disturbed?	Are "normal circumsta	ances"		
Are vegetation, soil, or hydrology	naturally pro	blematic?	pre	sent? Yes		
SUMMARY OF FINDINGS			(If needed, explain any answer	rs in remarks.)		
Hydrophytic vegetation present? Y				_		
Hydric soil present? Y	Is the sa	mpled area	a within a wetland?	Y		
Indicators of wetland hydrology present? Y	f yes, opti	ional wetlan	d site ID: Wetland A			
Remarks: (Explain alternative procedures here or in a separate	e report.)					
	• •					
VEGETATION Use scientific names of plants.				,		
Absolut	te Dominan	Indicator	Dominance Test Worksheet			
<u>Tree Stratum</u> (Plot size: <u>30'</u> ) % Cove 1	er t Species	Staus	Number of Dominant Species that are OBL, FACW, or FAC:	3 (A)		
2			Total Number of Dominant	~ .		
3			Species Across all Strata:	3 (B)		
4			Percent of Dominant Species			
5			that are OBL, FACW, or FAC:	<u>100.00%</u> (A/B)		
Conling/Shrub stratum (Plot size: 15')	= I otal Cover		Provalance Index Worksheet	4		
<u>Sapility/Siliub Silaluli</u> (Flot Size. 13 )			Total % Cover of:	1		
2			OBL species 80 x 1 =	80		
3			FACW species 10 x 2 =	20		
4			FAC species 0 x 3 =	0		
5			FACU species 0 x 4 =	0		
	= Total Cover		UPL species $0 \times 5 =$	0 (B)		
Herb stratum (Plot size: 5)		2.51	Column totals $90$ (A)	<u>100</u> (B)		
1 Acorus calamus 40	— <u> </u>	OBL	Prevalence Index = B/A =	1.11		
2     Scirpus atrovirens     20       3     Eunatorium perfoliatum     20	<u> </u>		Hydrophytic Vegetation Indi	cators:		
4 Impatiens capensis 10	— —	FACW	Rapid test for hydrophytic	vegetation		
5			X Dominance test is >50%	Vogotation		
6			X Prevalence index is ≤3.0*			
7			Morphogical adaptations*	(provide		
8			supporting data in Remark	is or on a		
9			separate sheet)			
1090	= Total Cover		Problematic hydrophytic ve (explain)	egetation*		
Woody vine stratum (Plot size: 15')	_		*Indicators of hydric soil and wetland	d hydrology must be		
1			present, unless disturbed or	problematic		
2			vegetation			
U	= I otal Cover		present? Y			
Remarks: (Include photo numbers here or on a separate sheet	t)					

#### SOIL

Profile Des	cription: (Descr	ibe to th	e depth needed	to docu	ment the	e indicat	or or confirm the	e absence	e of indicators.)			
Depth Matrix Redox Features						-						
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture		Remarks			
0-5	10 YR 3/1	100	None				Silt Loam					
5 19	Glov 2 5/N	70	10 VP 2/6	20	C	Ν4	Silt Loom					
5-16	Gley 2.5/N	70	10 TK 3/0	20		IVI						
			10 YR 2/1	10	RM	M	Silt Loam					
*Type: C = 0	Concentration, D =	= Depleti	ion, RM = Reduc	ed Matrix	k, MS = N	lasked S	and Grains.	**Location	: PL = Pore Lining, M = Matrix			
Hydric Sc	oil Indicators:						Indicators f	or Proble	matic Hydric Soils:			
His	tisol (A1)		Sa	ndy Gleye	ed Matrix	(S4)	Coast P	rairie Red	ox (A16) ( <b>LRR K, L, R</b> )			
His	tic Epipedon (A2)		Sa	ndy Redo	ox (S5)		Dark Su	ırface (S7)	(LRR K, L)			
Bla	ck Histic (A3)		Str	ipped Ma	trix (S6)		Iron-Ma	nganese N	/lasses (F12) ( <b>LRR K, L, R</b> )			
Hyd	drogen Sulfide (A4	4)	Loa	amy Mucl	ky Minera	al (F1)	Very Sh	allow Dark	Surface (TF12)			
Stra	atified Layers (A5)	)	X Loa	amy Gley	ed Matrix	x (F2)	Other (e	explain in r	emarks)			
2 ci	m Muck (A10)		X De	pleted Ma	atrix (F3)							
Dep	pleted Below Dark	Surface	e (A11) Re	dox Dark	Surface	(F6)						
	ck Dark Surface (	A12)	De	pleted Da	ark Surfa	ce (F7)	*Indicator	rs of hvdro	phytic vegetation and weltand			
Sar	ndy Mucky Minera	ul (S1)	Re	dox Depr	essions	(F8)	hvdroloc	av must be	present. unless disturbed or			
5 ci	m Mucky Peat or	Peat (S3	3)	•		· /	,	р р	problematic			
Destrictive	, Lever (if sheer)	, ,	,			1		•				
Restrictive	Layer (if observe	ea):										
Type:	)				-		Hydric so	li present	<u> </u>			
Depth (Inche	es):				-							
Remarks:												
Wotland Hy	drology Indicate	vrc ·										
		л <b>э.</b> , .										
Primary Indi	cators (minimum	of one is	s required; check	all that a	pply)		Seco	ndary Indic	cators (minimum of two required)			
Surface	Water (A1)			Aquatic	Fauna (B	313)	<u> </u>	Surface S	oil Cracks (B6)			
High Wa	ater Table (A2)			True Aq	uatic Plar	nts (B14)	<u>X</u>	Drainage	Patterns (B10)			
X Saturatio	on (A3)			Hydroge	en Sulfide	Odor (C	1)	Dry-Seaso	on Water Table (C2)			
X Water M	larks (B1)		V	Oxidized	d Rhizosp	heres on	Living Roots	Crayfish B	Surrows (C8)			
Sedimer	nt Deposits (B2)		<u>X</u>	-(C3)	(		· · · · ·	Saturation	Visible on Aerial Imagery (C9)			
X Drift Dep	X Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)						Stressed Plants (D1)					
	at or Crust (B4)			Recent I	Iron Redu	iction in I	illed Soils X	Geomorpr	hic Position (D2)			
	OUSIIS (B5)	Imager	(P7)		ak Curta		<u>X</u>	FAC-Neut	rai iest (D5)			
Sporach		a imager	y (D7)									
Sparsery	vegetated Conca	ave Suna		Gauge C	or vveli Da	ata (D9) Domorko	۸					
water-S	A Leaves (B9	7				Remarks	)	1				
Field Obsei	vations:	V	N1 -	v	Derth (	in oh c = )						
Surrace wat	er present?	Yes		<u> </u>		incnes):		المعال	optors of wotland			
Soturotion	present?	res		Χ	Depth (I	inches):	Surface	indi	talogy procent?			
Saturation p	nesent?	res	<u> </u>			inches):	Sunace	nyc	rology present? Y			
(includes ca	pillary Iringe)							L				
Describe red	corded data (strea	am gaug	e, monitoring we	l, aerial p	photos, p	revious i	nspections), if ava	ailable:				
D												
Remarks:												

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site West Milton - Eldean Transmission Line Pr	oje City/C	County: Greer	ntown/Howa	rd County Sampling Date:	10/6/14	
Applicant/Owner: Dayton Power and Light	State:	Ohio	Sampling Point:	Wetland b - Wet Out		
Investigator(s): Tyler Rankin/Geoffrey Palmer		Section, Township, Range: S3/T6N/R5E				
Landform (hillslope, terrace, etc.): Terrac	Local re	elief (concav	e, convex, none):	None		
Slope (%): 0 Lat: 39.996765		Long:	-84.30323	33 Datum:	NAD 83	
Soil Map Unit Name Ee - Eel silt Ioam		·	NWI C	Classification:	None	
Are climatic/hydrologic conditions of the site typical for	this time of	the year?	Y (It	f no, explain in remarks)		
Are vegetation , soil , or hydrolo	gy	significantly	disturbed?	Are "normal circu	imstances"	
Are vegetation , soil , or hydrolo	gy	naturally problematic? Are normal circumstances present? Yes				
SUMMARY OF FINDINGS				(If needed, explain any a	nswers in remarks.)	
Hydrophytic vegetation present? N						
Hydric soil present? N		Is the sampled area within a wetland? N				
Indicators of wetland hydrology present? N		f yes, opt	ional wetlan	d site ID:		
Pemerke: (Evaluin alternativa precedures here er in e	oporato ra	oort )				
Remarks. (Explain alternative procedures here of in a s	separate re	port.)				
VEGETATION Use scientific names of plants	S.			Deminence Test Works	haat	
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominan t Species	Indicator Staus	Dominance Test works	neet	
1 (FIOL SIZE)		t Opecies	Oldus	Number of Dominant Spec	ies AC: 1 (A)	
2				Total Number of Domin	ant (//)	
3				Species Across all Stra	ata: 6 (B)	
4				Percent of Dominant Spec	bies	
5				that are OBL, FACW, or FA	AC: 16.67% (A/B)	
	0 =	Total Cover				
Sapling/Shrub stratum (Plot size: 15')		.,		Prevalence Index Work	sheet	
1 Acer rubrum	15	Y	FAC	Total % Cover of:	× 1 0	
2 Robinia pseudoacacia	10	<u> </u>	FACU		$x_{1} = 0$	
4				FAC species 15	$x_{3} = \frac{0}{45}$	
5				FACU species 110	x 4 = 440	
	25 =	Total Cover		UPL species 0	x 5 = 0	
Herb stratum (Plot size: 5')				Column totals 125	(A) <u>485</u> (B)	
1 Poa annua	30	Y	FACU	Prevalence Index = B/A =	= 3.88	
2 Viola canadensis	25	Y	FACU			
3 Plantago lanceolata	25	Y	FACU	Hydrophytic Vegetation	Indicators:	
4 Trifolium repens	20	Y	FACU	Rapid test for hydrop	hytic vegetation	
5				Dominance test is >5	>U% <3.0*	
7				Marphagiaal adaptet	ione* (provide	
8				supporting data in Re	emarks or on a	
9				separate sheet)		
10				Problematic hydroph	ytic vegetation*	
	100 =	Total Cover		(explain)		
Woody vine stratum (Plot size: 15')				*Indicators of hydric soil and	wetland hydrology must be	
1				present, unless distur	bed or problematic	
2		Tatal Oaura		vegetation		
	0 =	i otal Cover		present? N	1	
Remarks: (Include photo numbers here or on a separat	e sheet)			-		

#### SOIL

Profile Des	cription: (Descri	ibe to th	e depth needed	to docu	ment the	e indicat	or or confirm the	absence of indi	cators.)		
Depth <u>Matrix</u>			Redox Features						·		
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture		Remarks		
0-18	10 YR 4/4	100					Silt Loam				
							0				
*Type: C = 0	Concentration, D =	= Depleti	on, RM = Reduce	ed Matrix	, MS = N	lasked S	and Grains. *	*Location: PL = P	ore Lining, M = Matrix		
Hydric Sc	il Indicators:						Indicators for	or Problematic H	ydric Soils:		
Hist	isol (A1)		Sar	dy Gleye	ed Matrix	: (S4)	Coast Pr	airie Redox (A16)	(LRR K, L, R)		
Hist	ic Epipedon (A2)		Sar	dy Redo	x (S5)	Dark Surface (S7) (LRR K, L)					
Bla	ck Histic (A3)		Stri	pped Ma	trix (S6)		Iron-Mar	nganese Masses (	F12) ( <b>LRR K, L, R</b> )		
Hyd	lrogen Sulfide (A4	1)	Loa	my Muck	ky Minera	al (F1)	Very Sha	allow Dark Surface	e (TF12)		
Stra	atified Layers (A5)	)	Loa	my Glev	ed Matrix	(F2)	Other (e:	xplain in remarks)			
2 cr	n Muck (A10)		Dep	leted Ma	atrix (F3)			. ,			
Dep	leted Below Dark	Surface	(A11) Rec	lox Dark	Surface	(F6)					
	k Dark Surface (	A12)		leted Da	rk Surfa	ce (F7)	*Indicators	s of hydrophytic ve	egetation and weltand		
Sar	dv Muckv Minera	(S1)	Rec	lox Depre	essions (	(F8)	hvdrolog	v must be present	. unless disturbed or		
5 cr	n Muckv Peat or	Peat (S3	)			()	, «	problema	tic		
			/			1					
Restrictive	Layer (If observe	ea):									
Type:	```				-		Hydric soil	present? N			
Depth (Inche	es):										
Remarks:											
HYDROLO	OGY										
Wetland Hy	drology Indicato	ors:									
Drimony Indi	atore (minimum	of one is	roquired: abook	all that a			Saaan	don Indiantora (m	ainimum of two required)		
Finary mu			required, check		<u>ppiy)</u> Equipa (P	12)	Secon	Surface Soil Creek			
	vvaler (AT)				rauna (D	13) ata (P14)		Droipogo Dottorpo	S (D0) (P10)		
	(A2)				n Sulfido	Odor (C)	1)	Dru Sooson Water	(D10) Table (C2)		
Water M	arks (B1)			Ovidized		beres on	Living Roots	Cravfish Burrows (	C8)		
Sedimer	nt Denosits (B2)			(C3)	i Kilizosp			Saturation Visible	on Aerial Imagery (C9)		
Drift Der	(B3)			Presenc	e of Redi	iced Iron	(C4)	Stunted or Stresse	d Plants (D1)		
Algal Ma	t or Crust (B4)			Recent I	ron Redu	iction in T	Tilled Soils	Geomorphic Positi	on $(D2)$		
Iron Der	osits (B5)			(C6)	ion read			FAC-Neutral Test (	(D5)		
Inundati	on Visible on Aeria	I Imager	/ (B7)	Thin Mu	ck Surfac	e (C7)			(= 0)		
Sparsely	Vegetated Conca	ve Surfa	ce (B8)	Gauge o	or Well Da	ata (D9)					
Water-S	tained Leaves (B9	)	. ,	Other (E	xplain in	Remarks	.)				
Field Obser	vations.	,					,				
Surface wat	er present?	Yes	No	х	Depth (i	nches):					
Water table	present?	Yes	No	X	Depth (i	nches):		Indicators of	of wetland		
Saturation p	resent?	Yes	No	Х	Depth (i	nches):		hydrology present? N			
(includes ca	pillary fringe)				· · ·	,					
Describe rec	corded data (strea	am daude	e. monitorina well	, aerial n	hotos. p	revious ii	nspections), if ava	ilable:			
Decemberro		in gaag	s, montoling tron	, aona p	110100, p		nopooliono), n'ava				
Remarks:											



ORAM v. 5.0 Field Form Quantitative Rating



	1 boolin
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 and of highest quality

# 42.5

End of Quantitative Rating. Complete Categorization Worksheets.



ORAM v. 5.0 Field Form Quantitative Rating



38

End of Quantitative Rating. Complete Categorization Worksheets.

3

quality or in small amounts of highest quality

Present in moderate or greater amounts

and of highest quality

## **APPENDIX 7-4**

Regulatory Agency Correspondence U.S. Fish and Wildlife Service and Ohio Department of Natural Resources



## 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

March 11, 2013

Received 3/18/13

Mike A. Frank GAI Consultants 1830 Airport Exchange Boulevard, Suite 220 Erlanger, KY 41018 TAILS: 03E15000-2013-TA-0631

Dear Mr. Frank:

This is in response to your February 15, 2013 letter regarding the proposed Dayton Power and Light 138 kV transmission line to connect the two existing substations (West Milton and Eldean). The following comments are being provided pursuant to the Endangered Species Act (ESA), Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and Fish and Wildlife Act of 1956. This information is being provided to assist you in making informed decisions regarding wildlife issues, site selection, and project design, and to assist you with complying with the applicable Federal wildlife laws.

#### WATER RESOURCE COMMENTS:

The Service recommends that impacts to streams and wetlands be avoided, and buffers surrounding these systems be preserved. Streams and wetlands provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. Naturally vegetated buffers surrounding these systems are also important in preserving their wildlife-habitat and water quality-enhancement properties. Furthermore, forested riparian systems (wooded areas adjacent to streams) provide important stopover habitat for birds migrating through the region. The proposed activities do not constitute a water-dependent activity, as described in the Section 404(b)(1) guidelines, 40 CFR 230.10. Therefore, practicable alternatives that do not impact aquatic sites are presumed to be available, unless clearly demonstrated otherwise. Therefore, before applying for a Section 404 permit, the client should closely evaluate all project alternatives that do not affect streams or wetlands, and if possible, select an alternative that avoids impacts to the aquatic resource. If water resources will be impacted, the Louisville District of the Corps of Engineers should be contacted for possible need of a Section 404 permit.

#### ENDANGERED SPECIES COMMENTS:

The ESA prohibits the "take" of any listed species. Take is defined as, among other things, to harass, harm, wound, or kill. Harm and harass are further defined by regulation. Harm includes

habitat modification or degradation that results in death or injury. Harass means to cause injury by disrupting normal behavior patterns such as breeding, feeding, or sheltering. The ESA also prohibits Federal agencies from funding, authorizing, or carrying-out, in full or in part, any action that is likely to adversely modify critical habitat. This projects lies within the range of the **Indiana bat** (*Myotis sodalis*), **snuffbox mussel** (*Epioblasma triquetra*), **rayed bean mussel** (*Villosa fabalis*), which are all federally endangered species.

The proposed project lies within the range of the Indiana bat, a federally listed endangered species. Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines. During winter, Indiana bats hibernate in caves and abandoned mines. Summer habitat requirements for the species are not well defined but the following are considered important:

- (1) dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, or cavities, which may be used as maternity roost areas;
- (2) live trees (such as shagbark hickory and oaks) which have exfoliating bark;
- (3) stream corridors, riparian areas, and upland woodlots which provide forage sites.

Should the proposed site contain trees or associated habitats exhibiting any of the characteristics listed above, we recommend that the habitat and surrounding trees be saved wherever possible. If the trees must be cut, further coordination with this office is requested to determine if surveys are warranted. Any survey should be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have a valid Federal permit. Please note that summer surveys must be conducted between May 15 and August 15.

The proposed project lies within the range of the snuffbox and rayed bean mussels. The snuffbox occurs in swift currents of riffles and shoals over gravel and sand with occasional cobble and boulders. The rayed bean is generally known from smaller, headwater creeks, but records exist in larger rivers. They are usually found in or near shoal or riffle areas, and in the shallow, wave-washed areas of lakes. Substrates typically include gravel and sand, and they are often associated with, and buried under the roots of, vegetation, including water willow (*Justicia americana*) and water milfoil (*Myriophyllum* sp.). Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of the snuffbox in the vicinity of the proposed site. Any survey should be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have valid Federal and State permits to survey for federally listed mussels in Ohio.

Should 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, our comments and recommendations may be reconsidered. 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 Endangered

Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy. If you have questions, or if we may be of further assistance in this matter, please contact Keith Lott at extension 31 in this office.

Sincerely,

Mary Hrapp

Mary Knapp, Ph.D. Field Supervisor

cc: ODNR, DOW, SCEA Unit, Columbus, OH



## Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Ohio Division of Wildlife Scott Zody, Chief 2045 Morse Rd., Bldg. G Columbus, OH 43229-6693

February 20, 2013

Mike Frank GAI Consultants 1830 Airport Exchange Blvd., Suite 220 Erlanger, KY 41018

#### Dear Mr. Frank

I have reviewed the Natural Heritage Database for the Dayton Power and Light, West Milton to Eldean 138 kV Transmission Line Project area, including a one mile radius, in Concord, Newton and Union Townships, Miami County, Ohio. We have records for rare species and a scenic river in your project area. I am attaching a shape file for the rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, A = recently added to inventory, status not yet determined, FE = federal endangered, FT = federal threatened, FPE = federal potentially endangered, FC = federal candidate and FSC = federal species of concern, F = federal listing only. This data may not be published or distributed beyond the scope of the project description on the data request form without prior written permission of the Natural Heritage Program.

Our inventory program has not completely surveyed Ohio 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. Although we inventory all types of plant communities, we only maintain records on the highest quality areas.

This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does 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.

Please contact me at 614-265-6452 if I can be of further assistance.

Sincerely,

Greg Schneiden

Greg Schneider, Administrator Ohio Natural Heritage Program

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

3/11/2015 4:54:45 PM

in

Case No(s). 14-0469-EL-BTX

Summary: Application regarding West Milton - Eldean 138kV Transmission Line Project (Part 9 of 9) electronically filed by Mr. Michael A Hassay on behalf of Shamash, Hertzel Mr.