**Attachment C: Delineation Report Addendum** 

Construction Notice – Case No. 19-1778-GA-BNR South Field Energy LLC SFE Natural Gas Interconnection

# Aquatic Resource Report Addendum for the South Field Energy Natural Gas Pipeline Interconnection Project

South Field Energy LLC

Columbiana County, Ohio

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# **ACRONYMS AND ABBREVIATIONS**

Acronyms/Abbreviations	Definition
1987 Manual	United States Army Corps of Engineers Wetland Delineation Manual
FAC	facultative
FACU	facultative upland
FACW	Facultative wetland
FR	Federal Register
GIS	Geographic Information Systems
GPS	Global Positioning System
HGM	Hydrogeomorphic
HHEI	Headwater Habitat Evaluation Index
HUC	Hydrologic Unit Code
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NRPW	Non-Relatively Permanent Waters
NRPWW	wetlands adjacent to Non-Relatively Permanent Waters that flow directly or indirectly into Traditionally Navigable Waters
NWI	National Wetlands Inventory
OAC	Ohio Administrative Code
OBL	Obligate
ODNR	Ohio Department of Natural Resources
ОН	Ohio
Ohio EPA	Ohio Environmental Protection Agency
OHWM	Ordinary High Water Mark
ORAM	Ohio Rapid Assessment Method for Wetlands
OWI	Ohio Wetlands Inventory
PEM	palustrine emergent
PFO	palustrine forested
PHWH	Primary Headwater Habitats
PSS	palustrine scrub-shrub
PUB	palustrine unconsolidated bottom
QHEI	Qualitative Habitat Evaluation Index
Regional Supplement	Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, April 2012
RPW	Relatively Permanent Water

Acronyms/Abbreviations	Definition
RPWWD	Wetlands directly abutting Relatively Permanent Waters that flow directly or indirectly into Traditionally Navigable Waters
RPWWN	Wetlands adjacent to but not directly abutting Relatively Permanent Waters that flow directly or indirectly into Traditionally Navigable Waters
SFE	South Field Energy LLC
the Study Area	the study area identified for potential natural gas pipeline reroutes associated with the South Field Energy Natural Gas Pipeline Interconnection
Tetra Tech	Tetra Tech, Inc.
TNW	Traditionally Navigable Water
TNWW	Wetlands Adjacent to Traditionally Navigable Waters
UNT	unnamed tributary
UPL	upland
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

### **1.0 INTRODUCTION**

Tetra Tech, Inc. (Tetra Tech), on behalf of South Field Energy, LLC (SFE) conducted an aquatic resource survey and prepared this Aquatic Resources Report Addendum for potential alternative routes for the proposed South Field Energy Natural Gas Pipeline Interconnection.

The Aquatic Resource Report Addendum summarizes the results of a field survey of the study area identified for potential alternative natural gas pipeline reroutes (the Study Area) for the presence of wetlands and surface water features. The Study Area is in Columbiana County, Ohio (OH), as shown on the United States Geological Survey (USGS) Study Area Location Map (Figure 1). The Study Area is in the Upper Ohio (Hydrologic Unit Code [HUC] 05030101) Watershed (USGS 2019). Tetra Tech applied the methods detailed in the United States Army Corps of Engineers' (USACE) Wetland Delineation Manual (1987 Manual; Environmental Laboratory 1987), as amended by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0 (Regional Supplement; USACE 2012).

### 2.0 METHODS

The primary objective of the aquatic resource field survey is to identify and map potentially jurisdictional streams and wetlands within the Study Area; however, the survey also includes the identification and mapping of likely non-jurisdictional aquatic resources such as stormwater management features (e.g., stormwater retention ponds, ditches excavated wholly in and draining only uplands that do not carry a relatively permanent flow), drainage features, groundwater wells, and farm ponds.

# 2.1 FIELD SURVEY

Prior to the start of field surveys, an initial desktop analysis of the Study Area is conducted through a review of available Geographic Information Systems (GIS) resources. Information reviewed includes the following:

- USGS topographic mapping (Figure 1; National Geographic Society, i-cubed 2013).
- National Resources Conservation Service (NRCS) Web Soil Survey (Figure 2; NRCS 2017) mapping and data.
- USGS National Hydrography Dataset (NHD) Best Resolution for Ohio (Figures 3a and 3b; USGS 2019)
- Ohio Department of Natural Resources (ODNR) Ohio Wetlands Inventory (OWI) Mapping (Figure 3a; ODNR 2014)
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping (Figure 3b; USFWS 2018).

All features identified in the field, including stream reaches, wetlands, and wetland upland points, are given unique identification names (i.e., S-ID, W-ID, and W-ID-UPL, respectively). In addition, the NHD stream name (USGS 2019) for field identified streams is recorded on the stream data form (Appendix A) and listed in Table 1. Identified streams without an NHD name are named, "Unnamed Tributary (UNT)" of the first named receiving waterbody.

Identified stream reaches are mapped along their entire course within the Study Area by use of a Global Positioning System (GPS) receiver with sub-meter accuracy or better. The identified streams are shown on the Aquatic Resource Location Map (Figure 4). Ohio Environmental Protection Agency (Ohio EPA) stream data forms detailing stream characteristics are provided in Appendix A. Photographs of each identified stream reach are included on the respective stream data forms.

Wetland delineation involves the establishment of the wetland/upland boundary based on the identification of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. This delineated wetland boundary is mapped in the field by use of a GPS receiver. Delineated wetlands are shown as closed or open boundary systems on the Aquatic Resource Location Map (Figure 4). Wetlands that continue beyond the delineated boundary shown on the Aquatic Resource Location Map are identified as open boundary wetland systems. Wetlands that do not continue beyond the delineated boundary shown on the Aquatic Resource Location Map are identified as open boundary wetland systems. Wetlands that do not continue beyond the delineated boundary shown on the Aquatic Resource Location Map are identified on vegetation, soils, and hydrology for identified wetlands and their associated upland points are recorded on USACE Wetland Determination Data Forms. Photographs of each identified wetland are included on the respective USACE Wetland Determination Data Forms.

Resumes of all personnel that performed the field surveys are provided in Appendix B.

# 2.2 STREAM IDENTIFICATION

Potentially jurisdictional streams are identified in the field by the presence of a continuous channel that exhibits evidence of frequent or reoccurring water flow such as a defined bed, bank, and an ordinary high-water mark (OHWM; USACE and United States Environmental Protection Agency [USEPA] 2007).

Physical and biological characteristics of the identified streams are evaluated to determine Flow Regime (82 Federal Register [FR] 1860, January 6, 2017), USACE Waters Type (USACE and USEPA 2007), and Cowardin classifications (Cowardin et al. 1979). Physical characteristics evaluated include, but are not limited to: channel morphology, substrate size and type, and base flow conditions. Biological characteristics evaluated include but are not limited to: the presence of fish, aquatic macroinvertebrates, and vegetation rooted within the OHWM. USACE Water Types (USACE and USEPA 2007) include:

- *Traditional Navigable Water (TNW)* All "navigable waters of the U.S.," defined in 33 CFR Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact.
- *Relatively Permanent Waters (RPW)* Streams that flow directly or indirectly into TNWs and where the flow of water is continuous year-round or at least seasonally.
- Non-RPW (NRPW) Streams that flow directly or indirectly into TNWs where the flow of water is not continuous at least seasonally.

Flow Regimes (82 FR 1860, January 6, 2017) include:

- Perennial Streams that typically have flow year-round. Most of the hydrology for perennial streams is derived from smaller upstream waters and/or groundwater sources with precipitation as a supplemental hydrologic contributor. Perennial streams are classified as RPW or TNW USACE Waters Types (USACE and USEPA 2007).
- Intermittent Streams with seasonal flow, typically during the wet season (winter through spring). At least
  a portion of the hydrology for intermittent streams is derived from groundwater sources with
  precipitation as a supplemental hydrologic contributor. Intermittent streams are classified as an
  RPW USACE Waters Type (USACE and USEPA 2007).
- Ephemeral Rain-dependent streams flowing only after precipitation event. Precipitation driven run-off from the localized surrounding landscape is the primary source of hydrology. Ephemeral streams are different from non-jurisdictional ditches and drainages due to the presence of an observable OHWM. Ephemeral streams are classified as an NRPW USACE Waters Type (USACE and USEPA 2007).

# 2.3 OHIO EPA STREAM EVALUATIONS

Streams with a watershed size greater than one square mile or where the predominant natural pool depth is greater than 40 centimeters (15.75 inches) are evaluated using the Qualitative Habitat Evaluation Index (QHEI) methods outlined in the *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI*; Ohio EPA 2006). The QHEI is a quantitative evaluation of physical stream characteristics which are important for supporting fish communities. Six individual metrics are scored then added; the total maximum score of this quantitative evaluation is 100. For headwater streams QHEI scores greater than or equal to 70 correspond to an excellent rating, 55 – 69 to a good rating, 43 – 54 to a rating of fair, 30 – 42 to a rating of poor, and less than 30 to a rating of very poor. For streams with larger watersheds QHEI scores greater than or equal to 75 correspond to an excellent rating, 60 – 74 to a good rating, 45 – 59 to a rating of fair, 30 – 44 to a rating of poor, and less than 30 to a rating of very poor.

Headwater streams, defined by the Ohio EPA as streams with a drainage area less than one square mile, are evaluated using the Headwater Habitat Evaluation Index (HHEI) methods outlined in the *Field Evaluation Manual for Ohio's Primary Headwater Streams* (Ohio EPA 2012). Level 1 Assessments are performed at all headwater streams identified within the Study Area. A Level 1 Assessment consists of an evaluation of the stream's physical characteristics using the HHEI. Level 2 and Level 3 Assessments are evaluations of the biological community and are not performed as part of this field survey.

The results of the HHEI evaluation designate streams as either Modified Class I, Modified Class II, Class II, or Class III (Class IIIA or Class IIIB) Primary Headwater Habitats (PHWH). These designations are defined under Ohio Administrative Code (OAC) 3745-1-07 as;

- *Class I PHWH* Ephemeral streams that have little or no aquatic life potential, except seasonally when flowing water is present for short time periods following precipitation or snow melt.
- Class II PHWH Intermittent or perennial streams that exhibit moderately diverse communities of warm water-adapted native fauna present either seasonally or year-round. The native fauna is characterized by species of vertebrates (temperature facultative species of amphibians and pioneering species of fish) and benthic macroinvertebrates.
- Class III PHWH Perennial streams in which the prevailing flow and temperature conditions are influenced by groundwater. They exhibit moderately diverse to highly diverse communities of cold water adapted native fauna present year-round. Class III PHWH streams are further divided into the two sub-classifications below; however, since Level 2 or 3 Assessments are not performed as part of this field survey, all Class III PHWH streams identified as part of this survey will be designated as Class IIIB PHWH streams, as per the Field Evaluation Manual for Ohio's Primary Headwater Streams (Ohio EPA 2012).
  - Class IIIA Streams exhibit diverse communities of native fauna.
  - Class IIIB Streams exhibit superior species composition or diversity of native fauna.
- *Modified PHWH* Class I and Class II PHWH streams may be further classified as modified habitats if they are historically channelized watercourses, have permanent structures to impound free-flowing water, or otherwise have human induced channel modifications that are of long-lasting duration.

An HHEI and QHEI may be completed in conjunction if a stream has watershed less than one square mile but exhibits predominant natural pools greater than 40 centimeters (15.75 inches) in depth.

Stream designations are identified and classified in with OAC 3745-1 Water Quality Standards (OAC 2017).

## 2.4 WETLAND DELINEATION

Wetland delineations are conducted in accordance with the *1987 Manual* (Environmental Laboratory 1987) and the *Regional Supplement* (USACE 2012). According to the *1987 Manual* (Environmental Laboratory 1987), an area is defined as a wetland if, under normal circumstances, it meets all three of the following criteria: predominance of hydrophytic vegetation (plants adapted for life in saturated soil conditions); hydric soils (soils formed under water, or in saturated conditions); and wetland hydrology (current or recent inundation or saturated soils at some time during the growing season).

### 2.4.1 Hydrophytic Vegetation

Hydrophytic vegetation is identified in the field based on the *Regional Supplement* (USACE 2012). Plant species representative of the habitats within the Study Area are identified to the species taxonomic level and the indicator status for each plant species is identified using *The National Wetland Plant List: 2016 Wetland Ratings* (Lichvar 2016). Wetland indicator statuses are described below (Reed 1988):

- Obligate (OBL) almost always occurs in wetlands; estimated probability of occurrence in a wetland is greater than 99 percent.
- Facultative Wetland (FACW) usually occurs in wetlands but may occur in non-wetlands; estimated probability of occurrence in a wetland is 67 to 99 percent.
- Facultative (FAC) equally likely to occur in wetlands and non-wetlands; estimated probability of occurrence in a wetland is 34 to 66 percent.
- Facultative Upland (FACU) usually occurs in non-wetlands but may occur in wetlands; estimated probability of occurrence in a wetland is 1 to 33 percent.
- Upland (UPL) rarely occurs in wetlands; estimated probability of occurrence in a wetland is less than 1 percent.

Hydrophytic vegetation includes species with an indicator status of OBL, FACW, or FAC. Hydrophytic vegetation decisions are based on the plant community typically present during the wet portion of the growing season during a normal rainfall year. In areas where human practices or natural events have influenced vegetation, procedures for difficult or problematic situations outlined in the *Regional Supplement* (USACE 2012) are followed.

Wetlands habitat types are based on vegetation strata composition and are classified in accordance with the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979):

- Palustrine emergent (PEM) contain emergent, herbaceous (non-woody) plants which are the tallest life form with at least 30 percent aerial coverage.
- Palustrine scrub-shrub (PSS) contain woody plants less than six meters (20 feet) in height which are the tallest life form with at least 30 percent aerial coverage, or, when trees or shrubs alone cover less than 30 percent of an area but in combination cover 30 percent or more. Trees are defined as woody plants at least six meters (20 feet) in height, and shrubs are defined as woody plants less than six meters (20 feet) in height.
- Palustrine forested (PFO) contain woody plants at least six meters (20 feet) in height which are the tallest life form with at least 30 percent aerial coverage.
- Palustrine unconsolidated bottom (PUB) contain all wetland and deepwater habitats with at least 25 percent cover of particles smaller than stones, and a vegetative cover of less than 30 percent.

### 2.4.2 Hydric Soils

Hydric soils are identified in the field based on the *1987 Manual* (Environmental Laboratory 1987), *Regional Supplement* (USACE 2012), and *Field Indicators of Hydric Soils in the United States* (United States Department of Agriculture [USDA] 2010). Based on prior experience, the presence of field-identified hydric soils does not always align with NRCS mapped hydric soils units. The NRCS soil units represent a large geographic area and are based on broad geologic and historic conditions. The methods used in the *Field Indicators of Hydric Soils in the United States* (USDA 2010) are used to determine hydric soil conditions on a localized scale. A review of the NRCS mapped hydric soils units is used to initially identify areas that have the potential to contain wetlands (See Section 3.2); however, wetland delineation boundaries are based on the presence of field identified hydric soils. In cases where soils are found to be disturbed or problematic, determinations may rely on the NRCS mapped hydric soil units (USACE 2012).

### 2.4.3 Wetland Hydrology

Wetland hydrology indicators are identified in the field based on the *1987 Manual* (Environmental Laboratory 1987) and *Regional Supplement* (USACE 2012). Hydrogeomorphic (HGM) and Water Type classifications are assigned to wetlands based on their hydrologic source and connectivity to streams. HGM classifications are based on *A* 

*Hydrogeomorphic Classification for Wetlands* (Brinson 1993); a summary of HGM classifications commonly used in the Study Area region is described below:

- *Riverine* Wetlands occur in floodplains and riparian corridors in association with stream channels.
- Depressional Wetlands occur in topographic depressions. Dominant water sources are precipitation ground water discharge, and both interflow and overland flow from adjacent uplands.
- Slope Wetlands normally are found where there is a discharge of ground water to the land surface. They normally occur on sloping land; elevation gradients may range from steep hillsides to slight slopes.

Wetland USACE Water Types (USACE and USEPA 2007) include:

- *TNWW* Wetlands adjacent to TNWs.
- *RPWWD* Wetlands directly abutting RPWs that flow directly or indirectly into TNWs.
- *RPWWN* Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs.
- NRPWW Wetlands adjacent to NRPWs that flow directly or indirectly into TNWs.
- *Isolate* Isolated (interstate or intrastate) waters, including isolated wetlands.

Current wetland hydrology indicators, inundation/saturation visible on aerial imagery, and estimates of the effects of ditches and subsurface drainage systems are all considered when making decisions regarding wetland hydrology in areas where human practices or natural events may have altered wetland hydrology.

### 2.5 ORAM ASSESSMENT

The Ohio Rapid Assessment Method for Wetlands (ORAM) is used to assess the ecological quality and level of function of each identified wetland system as required by the Ohio EPA. The assessments are conducted using the methods in the Ohio Rapid Assessment Method for Wetlands v. 5.0, User's Manual and Scoring Forms (Mack 2001). The ORAM uses metrics relating to wetland size, adjacent upland land use, hydrology, habitat alteration, special habitats, and plant communities to calculate and assign each wetland system to a Category. Wetlands are designated as either Category 1, Category 2, Modified Category 2, or Category 3. These categories correspond to wetlands of low, medium, and high quality, respectively.

In many instances the ORAM scoring boundaries coincide with the delineated boundaries of single wetlands. However, wetlands may be scored together in circumstances where wetlands are small (< 1 acre), located near each other within the same forest, floodplain, soil mapping unit, field, etc., and are separated from each other by relatively narrow areas of non-wetland (Mack 2001).

## 3.0 RESULTS

Tetra Tech performed field surveys within the Study Area (as illustrated on Figures 1 through 4) on August 5th, 2019. The field surveys identified two stream reaches and no wetlands within the Study Area. The Aquatic Resource Location Map (Figure 4) illustrates the stream locations in relation to the Study Area. Table 1 summarizes stream information for all identified stream reaches. Ohio EPA stream data forms (HHEI and/or QHEI) are included in Appendix A.

This aquatic resource report represents our best professional judgment and is based on site conditions at the time of the field investigation. However, final authority over the determinations made during these surveys rests with the Ohio EPA and the USACE.

# 3.1 STREAM IDENTIFICATION AND EVALUATION

Two stream reaches were identified in the Study Area based on our review of available GIS mapping data, evidence collected during field surveys, and best professional judgment. A summary of the data for each identified stream reach is provided in Table 1. Table 1 shows the stream reach field identification name, the NHD stream name, stream location, Flow Regime classification, Water Type classification, Cowardin classification, HHEI or QHEI score, HHEI class or QHEI narrative rating, bank full width (in meters and feet), and flow direction. Ohio EPA Stream data forms (HHE and/or QHEI) data forms are provided for each stream reach in Appendix A. Photographs of each identified stream reach are included on the respective data forms.

## **3.2 WETLAND IDENTIFICATION AND DELINEATION**

NRCS, USFWS NWI, and ODNR OWI mapping were reviewed for the initial desktop analysis of the Study Area to identify areas that may have the potential to contain wetlands. Table 2 summarizes the NRCS hydric soils list for Columbiana County. The NRCS soil survey mapping units are shown on Figure 2. A review of the USFWS NWI and ODNR OWI mapping indicates that no NWI wetlands and one OWI wetland are mapped in the Study Area (Figure 3a, Figure 3b); the OWI wetland was not field-observed within the Study Area.

Based on our review of available GIS mapping data, evidence collected during field surveys, and best professional judgment, no wetlands are located within the Study Area.

## **4.0 CONCLUSION**

During the field survey of the South Field Energy Natural Gas Pipeline Interconnection Study Area, two stream reaches were identified within the Study Area. No wetlands were identified within the Study Area. A summary of identified stream reach data is provided in Table 1 and locations of all streams are shown on the Aquatic Resource Location Map (Figure 4).

This Aquatic Resource Report represents our best professional judgment and is based on site conditions at the time of the field survey. However, final authority over the determinations made during this survey rests with the Ohio EPA and the USACE

### **5.0 REFERENCES**

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# **FIGURES**

Figure 1: USGS Study Area Location Map Figure 2: NRCS Soils Map Figure 3a: Ohio Wetlands Inventory Map Figure 3b: National Wetlands Inventory Map Figure 4: Aquatic Resource Location Map











# TABLES

Table 1: Identified Streams Table 2: Hydric Soils List - Columbiana County

#### Table 1. Identified Streams

Stream Number <sup>1</sup>	Stream Reach ID	NHD Stream Name <sup>2</sup>	County	Latitude <sup>3</sup>	Longitude <sup>3</sup>	Flow Regime	Water Type <sup>4</sup>	Cowardin Class⁵	Aquatic Life Habitat Designated Use <sup>6</sup>	HHEI/QHEI Score <sup>7</sup>	HHEI Class/QHEI Narrative Rating <sup>7</sup>	Bank Full Width (meters)	Bank Full Width (feet)	Flow Direction	Figure(s)
1	S-HS01	UNT to Little Yellow Creek	Columbiana	40.641500	-80.687275	Intermittent	RPW	R4SB3	WWH	46.0	Modified Class II	2.13	7.00	Southeast	4
2	S-HS02	UNT to Little Yellow Creek	Columbiana	40.641213	-80.683048	Intermittent	RPW	R4SB3	WWH	39.0	Modified Class II	2.13	7.00	West	4

Notes:

2 - Streams with braided channels, streams that have different flow regimes (e.g. ephemeral and intermittent) within the surveyed reach, and NHD named streams with different field stream reach identification names are counted as single streams.
 2 - For identified streams without a NHD (National Hydrography Dataset) name, the identified stream was given the name, "Unnamed Tributary (UNT)", of the first named receiving waterbody

3 - In decimal degrees

4 - RPW = Relatively Permanent Waters

- NRPW = Non-Relatively Permanent Waters

- TNW = Traditional Navigable Waters

5 - From Cowardin et al. 1979; see References. 6 - From OAC Chapter 3745-1 Water Quality Standards:

- CWH = Cold Water Habitat

- EWH = Exceptional Warm Water Habitat

- LRW = Limited Resource Water

- MWH = Modified Warm Water Habitat

- SRW = State Resource Water

- SSH = Seasonal Salmonid Habitat

- WWH = Warm Water Habitat

7 - Ohio EPA. 2012. Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (HHEI). Version 3.0. Ohio EPA Division of Surface Water, Columbus, Ohio.

- Ohio EPA. 2006. Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI). Ohio EPA Technical Bulletin EAS/2006-06-1. Ohio EPA Division of Surface Water, Groveport, Ohio.

# Table 2. Hydric Soils List Columbiana County, Ohio

Map Unit Symbol	Map Unit Name	Component Name and Phase	Component Percent	Landforms
CeA	Carlisle muck, 0 to 1 percent slopes	Carlisle	90	Depressions, Ground moraines
CeA	Carlisle muck, 0 to 1 percent slopes	Lorain	10	Rises
DgA	Doles silt loam, 0 to 3 percent slopes	Wetter soil	10	Depressions
FdA	Fitchville silt loam, 0 to 2 percent slopes	Wetter soils	5	Depressions
FdB	Fitchville silt loam, 2 to 6 percent slopes	Wetter soils	5	Drainageways
FeA	Fluvaquents, silty, 0 to 1 percent slopes, frequently flooded	Fluvaquents, silty	100	Flood plains
FrA	Frenchtown silt loam, 0 to 2 percent slopes	Frenchtown	100	Till plains
GaB	Gavers silt loam, 2 to 6 percent slopes	Wetter soils	5	Depressions
HkA	Holly silt loam, 0 to 2 percent slopes, frequently flooded	Holly	95	Flood plains
HmA	Homeworth loam, 0 to 2 percent slopes	Wetter soil	5	Depressions
HmB	Homeworth loam, 2 to 6 percent slopes	Wetter soil	5	Drainageways
НоА	Homeworth silt loam, 0 to 2 percent slopes	Wetter soil	5	Depressions

НоВ	Homeworth silt loam, 2 to 6 percent slopes	Wetter soil	5	Drainageways
JwA	Jimtown silt loam, 0 to 2 percent slopes	Valley	5	Depressions
JwB	Jimtown silt loam, 2 to 6 percent slopes	Valley	5	Drainageways
LbA	Lobdell silt loam, 0 to 2 percent slopes, occasionally flooded	Holly	5	Flood plains
LnA	Lorain silt loam, 0 to 2 percent slopes	Lorain	80	Till plains
LnA	Lorain silt loam, 0 to 2 percent slopes	Valley	15	Depressions
LnA	Lorain silt loam, 0 to 2 percent slopes	Soils with a thick, dark-colored surface layer		Depressions
LnA	Lorain silt loam, 0 to 2 percent slopes	Soils with a surface layer formed in organic material		Depressions
OdA	Olmsted and Valley soils, 0 to 2 percent slopes	Olmsted	45	Terraces
OdA	Olmsted and Valley soils, 0 to 2 percent slopes	Valley	35	Outwash plains
OdA	Olmsted and Valley soils, 0 to 2 percent slopes	Soil with less clay and more silt in the subsoil than valley		Terraces
OrA	Orrville silt loam, 0 to 2 percent slopes, occasionally flooded	Holly	5	Flood plains
ReA	Ravenna silt loam, 0 to 2 percent slopes	Wetter soils	5	Drainageways
ReB	Ravenna silt loam, 2 to 6 percent slopes	Wetter soils	5	Drainageways
ТоА	Tioga loam, 0 to 2 percent slopes, occasionally flooded	Poorly drained soils	5	Oxbows
VaA	Valley silt loam, 0 to 2 percent slopes	Valley	80	Till plains
VaA	Valley silt loam, 0 to 2 percent slopes	Soils with less clay and more silt in the subsoil		Flats

Hydric Soil List – Columbiana County, Ohio

VaA	Valley silt loam, 0 to 2 percent slopes	Olmsted	5	Depressions
VaA	Valley silt loam, 0 to 2 percent slopes	Lorain	10	Depressions
VbA	Valley silty clay loam, 0 to 2 percent slopes	Valley	80	Till plains
VbA	Valley silty clay loam, 0 to 2 percent slopes	Soils with less clay and more silt in the subsoil		Flats
VbA	Valley silty clay loam, 0 to 2 percent slopes	Lorain	10	Depressions
VbA	Valley silty clay loam, 0 to 2 percent slopes	Olmsted	5	Depressions
VcA	Valley-Lorain silt loams, 0 to 2 percent slopes	Valley	45	Till plains
VcA	Valley-Lorain silt loams, 0 to 2 percent slopes	Lorain	35	Till plains
VcA	Valley-Lorain silt loams, 0 to 2 percent slopes	Soils with less clay and more silt in the subsoil		Flats
WaA	Wadsworth silt loam, 0 to 2 percent slopes	Wetter soils	5	Depressions
WaB	Wadsworth silt loam, 2 to 6 percent slopes	Wetter soils	5	Drainageways
WoA	Wick silt loam, 0 to 2 percent slopes, frequently flooded	Wick	90	Flood plains
WoA	Wick silt loam, 0 to 2 percent slopes, frequently flooded	Soils with less silt and more sand in the subsoil		Flood plains
WoA	Wick silt loam, 0 to 2 percent slopes, frequently flooded	Carlisle	2	Flood plains
ZeA	Zepernick silt loam, 0 to 2 percent slopes, occasionally flooded	Wick	13	Flood plains
Modified from I	Hydric Soils of the United States (NRCS 2012)			

**APPENDIX A: OHIO EPA STREAM DATA FORMS** 



S-HS01 Modified C	lass
<b>ChieEPA</b> Primary Headwater Habitat Evaluation Form	46
HHEI Score (sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION South Field Energy / West Point, Ohio	
SITE NUMBER S-HS01 RIVER BASIN Ohio River DRAINAGE AREA (mi²) 0	.04
LENGTH OF STREAM REACH (ft) 280 LAT. 40.64150 LONG80.68728 RIVER CODE RIVER MILE	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Obio's PHWH Streams" for Instr	uctions
MODIFICATIONS: *Modified if Checked*	OVERT
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.	HHEI
TYPE         PERCENT         TYPE         PERCENT           BLDR SLABS [16 pts]         0%         SILT [3 pt]         5%	Points
BOULDER (>256 mm) [16 pts] 5% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Substrate
✓       COBBLE (65-256 mm) [12 pts]         40%       ✓         ✓       CLAY or HARDPAN [0 pt]	Max = 40
GRAVEL (2-64 mm) [9 pts]         35%         MUCK [0 pts]         0%	26
SAND (<2 mm) [6 pts]	
Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth ( <i>Measure the maximum pool depth within the 61 meter (200 ft)</i> evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check <i>ONLY</i> one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
<ul> <li>&gt; 22.5 - 30 cm [30 pts]</li> <li>&gt; 10 - 22.5 cm [25 pts]</li> <li>✓ NO WATER OR MOIST CHANNEL [0 pts]</li> </ul>	0
COMMENTS Dry channel. MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
<ul> <li>&gt; 4.0 meters (&gt; 13') [30 pts]</li> <li>&gt; 3.0 m - 4.0 m (&gt; 9' 7" - 13') [25 pts]</li> <li>&gt; 1.0 m (&lt;=3' 3") [5 pts]</li> </ul>	Width Max=30
✓ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS 7.0 ft. AVERAGE BANKFULL WIDTH (meters): 2.13	20
RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
Wide >10m     Image       Mature Forest, Wetland     Image	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial Field	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	qc
None Fenced Pasture Mining or Construction	
FLOW REGIME (At Time of Evaluation) (Check ON! Yone box):	-
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	)
COMMENTS	L
SINUOSITY (Number of ben <u>ds per 61 m (200 ft) of channel) (Check ONLY one box):</u>	
None         1.0         2.0         3.0           0.5         1.5         2.5         3.0	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate Moderate (2 ft/100 ft) Moderate to Severe	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):			
QHEI PERFORMED? - Yes 🖌 No QHEI Score (If Yes, Attach C	completed QHEI Form)		
DOWNSTREAM DESIGNATED USE(S)			
WWH Name: Little Yellow Creek D	istance from Evaluated Stream	1.64	mi.
CWH Name: Di	stance from Evaluated Stream		L
EWH Name: Di	stance from Evaluated Stream		
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AR	EA. CLEARLY MARK THE SITE LC	CATION	
USGS Quadrangle Name: West Point NRCS Soil Map Page:	NRCS Soil Map Stream	Order _	
County: Columbiana Township / City: Madison To	wp.		
MISCELLANEOUS			
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 07/30/19	Quantity: 0.16		
Photograph Information: See Attached Figure 4 and USACE Wetland Determination Data	Form Photographs.		
Elevated Turbidity? (Y/N): Canopy (% open):15%			
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and a	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 $(Y/N)$ <b>Y</b> If not, please explain:			
Additional comments/description of pollution impacts			
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations, Voucher collections optional, NC	) TE: all voucher samples must be lat	beled with	n the sit
ID number. Include appropriate field data sheets from the Primary	Headwater Habitat Assessment Ma	nual)	
Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y/N) N Salamanders Observed? (Y/N) N Salamanders Observed? (Y/N) N Salamanders Observed? (Y/N) N N N N N N N N N N N N N N N N N N	Voucher? (Y/N)	N N	7
Commente Deserveur (1/14) N Voucher: (1/14) N Aqualle Maciolityeriebiales C			_
Comments Regarding Biology:			
1			

### 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



### **Stream Photograph Page**

Stream ID <u>S-HS01</u> Date <u>08/05/19</u>



Photograph Number \_\_\_\_\_

Photograph Direction ESE

Comments: Downstream



Photograph Number 2 Photograph Direction WNW

Comments: Upstream



Photograph Number 3

Photograph Direction South

Comments: Across



Photograph Number \_\_\_\_4\_\_\_ Photograph Direction East

Comments: Upstream

S-HS02 Modified Cla	ass
<b>ChieFPA</b> Primary Headwater Habitat Evaluation Form	
HHEI Score (sum of metrics 1, 2, 3) :	9
SITE NAME/LOCATION South Field Energy / West Point, Ohio	
SITE NUMBER S-HS02 RIVER BASIN Ohio River DRAINAGE AREA (mi <sup>2</sup> ) 0.0	)4
LENGTH OF STREAM REACH (ft) 641 LAT. 40.64121 LONG80.68305 RIVER CODE RIVER MILE	
DATE 08/05/19 SCORER KMM, HBS COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Obio's PHWH Streams" for Instruct	ctions
STREAM CHANNELNONE / NATURAL CHANNEL  RECOVERED ▷ RECOVERING RECENT OR NO RECOV MODIFICATIONS: *Modified if Checked*	VERY
inounieu il offecteu	
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	HHEI
TYPE     PERCENT     TYPE     PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
$ \boxed{\begin{array}{c} \hline \\ \hline $	Substrate
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0%	19
SAND (<2 mm) [6 pts]	
Total of Percentages of 15.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 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 time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
$\sim$ > 30 centimeters [20 pts] $\sim$ > 5 cm - 10 cm [15 pts] $<$ 22.5 - 30 cm [30 pts] $<$ 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]   NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS Dry channel. 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] 4.0 m (-3') 2" [5 pts]	Width
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS 7.0 ft. AVERAGE BANKFULL WIDTH (meters): 2.13	20
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	
V Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Subsurface flow with isolated pools (Interstitial)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft)       Flat to Moderate       Moderate (2 ft/100 ft)       Moderate to Severe       Severe (10 ft/100 ft)	ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):			
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attac	th Completed QHEI Form)		
DOWNSTREAM DESIGNATED USE(S)	Г		1.
WWH Name: Little Yellow Creek	_ Distance from Evaluated Stream	1.64	mı.
CWH Name:	Distance from Evaluated Stream		
	Distance from Evaluated Stream		
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	AREA. CLEARLY MARK THE SITE L	OCATION	I
USGS Quadrangle Name: West Point NRCS Soil Map Pa	age: NRCS Soil Map Stream	Order	
County: Columbiana Township / City: Madison	n Twp.		
MISCELLANEOUS			
Base Flow Conditions? (Y/N): Date of last precipitation:07/30/19	Quantity: <b>0.16</b>		
Photograph Information: See Attached Figure 4 and USACE Wetland Determination D	ata Form Photographs.		
Elevated Turbidity? (Y/N): N Canopy (% open): 35%			
Were samples collected for water chemistry? (Y/N): _N (Note lab sample no. or id. an	nd 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:			
1			
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 Print	NOTE: all voucher samples must be la nary Headwater Habitat Assessment M	abeled wit anual)	h the sit
Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate	Voucher? (Y/N) N S Observed? (Y/N) Voucher? (	(Y/N) N	
Comments Regarding Biology:			

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

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



### **Stream Photograph Page**

Stream ID <u>S-HS02</u> Date <u>08/05/19</u>



Photograph Number <u>5</u>

Photograph Direction West

Comments: Downstream



Photograph Number <u>6</u> Photograph Direction <u>ESE</u>

Comments: Upstream



Photograph Number \_\_\_\_7

Photograph Direction North

Comments: across



Photograph Number <u>8</u> Photograph Direction <u>SSW</u>

Comments: Downstream

**APPENDIX B: RESUMES** 





# Henry Schumacher, PWS Manager, Wetlands and Ecological Services Department

#### **EXPERIENCE SUMMARY**

Mr. Schumacher specializes in ecology, with over 18 years of experience managing and conducting environmental field studies and evaluating the impacts of natural and anthropogenic disturbance on species and natural communities. He has more than 10 years of experience as an environmental consultant helping clients to identify, avoid, and mitigate potential environmental impacts for energy development (natural gas, solar, electric, wind), environmental remediation, transportation, and commercial development projects throughout Pennsylvania, Ohio, West Virginia, New York, and Virginia. He is a Certified Ecologist with the Ecological Society of America, a Professional Wetland Scientist, and has held a PADCNR Wild Plant Management Permit for surveying state-listed plant species since 2008.

Mr. Schumacher is accustomed to both leading project teams in the office and to conducting fieldwork in remote locations in challenging conditions. He has served as the natural resources lead for numerous projects in Pennsylvania, Ohio, West Virginia, New York, and Virginia and served as the environmental permitting task lead for a large, 303-mile natural gas pipeline project. He has conducted field surveys for private clients in Pennsylvania, West Virginia, Ohio, Minnesota, Wisconsin, New York, New Jersey, Maryland, Virginia, Missouri, and in the Oil Sands of Alberta, Canada. He has conducted habitat surveys for federal and state listed bats, snakes, mammals, and migratory bird nesting sites, and presence/absence surveys for non-native invasive species and over 50 state and federal listed plant species. In addition to his environmental consulting experience, Mr. Schumacher has conducted experimental and observational scientific field studies in Pennsylvania, West Virginia, Louisiana, Massachusetts, Panama, England, and Zimbabwe.

### **RELEVANT EXPERIENCE**

#### Mountain Valley Pipeline, LLC; Mountain Valley Pipeline Project, WV & VA

Environmental Permitting Task Lead. Prepared Nationwide Permit applications for USACE Norfolk, Huntington, and Pittsburgh Districts and WV DEP Individual 401 Water Quality Certification application for a 303-mile natural gas pipeline project. Prepared wetland delineation/stream identification reports, project impact calculations, and compensatory mitigation plans. Participated in regulatory agency meetings and wetland delineation site reviews. WV & VA.

#### Lendlease Energy Development LLC, Nestlewood Solar Project, OH

Natural Resources Lead. Managed 1) wetland and stream surveys and reporting, and 2) OPSB resource report surveys and reporting for an approximately 600-acre proposed solar energy development project. Provided USACE/OEPA permitting support.

#### Seneca Wind LLC, Seneca Wind Project, OH

Natural Resources Lead. Managed 1) wetland and stream surveys and reporting, and 2) OPSB resource report surveys and reporting for an approximately 3,600-acre proposed 200 MW wind energy development project. Provided USACE/OEPA permitting support.

#### Sunoco Logistics, L.P.; Pennsylvania Pipeline Project

Conducted wetland delineation site reviews with state and federal regulatory agencies and presence/absence surveys for Northeastern bulrush (*Scirpus ancistrochaetus*) and racemed milkwort (*Polygala polygama*) as part of a 561-mile natural gas pipeline project. Prepared reports for USFWS and PADCNR. USFWS #2014-0200. PNDI #22275.

#### **EDUCATION**

M.Sc. Ecology, University of Pittsburgh, 2008

B.S. Ecology, Tulane University, 2000

#### **AREA OF EXPERTISE**

Botanical & Wetland Surveys

Wetland & Stream Assessment

Wetland & Stream Restoration

Environmental Permitting (PA, OH, WV, VA)

#### REGISTRATIONS/ AFFILIATIONS

USFWS Qualified Surveyor for Northeastern Bulrush, 2012

USFWS Qualified Surveyor for Eastern Prairie-Fringed Orchid, 2009

PADCNR Wild Plant Management Permit No. 18-066,

#### TRAINING/CERTIFICATIONS

Professional Wetland Scientist, 5/6/2014

Certified Ecologist (Ecological Society of America), 6/1/2014

Ohio Rapid Assessment Methods (ORAM) for Wetlands, 5/12/15.

USACE 1987 Manual Wetland Delineation, 7/17/08

OEPA Biocriteria Training, 2008

#### OFFICE

Pittsburgh, PA

YEARS OF EXPERIENCE

18

#### YEARS WITHIN FIRM

>3

#### CONTACT

Henry.Schumacher@tetratech.com

**Dominion; PL-1 Transmission Line Project, PA**. Conducted a survey for invasive plant species along 40 miles of gas pipeline ROW in PA State Forests using the Montana Noxious Weed Survey & Mapping System. Assisted in preparation of the monitoring report and invasive species treatment recommendation report to meet regulatory requirements. Conducted post-construction wetland & stream monitoring along a 40-mile gas pipeline ROW in PA State Forests. Assisted in the evaluation of wetland & stream restoration success and in the preparation of the monitoring report to meet regulatory requirements.

#### CenturyLink, Inc.; Reading to Allentown Segment 2 Fiber Optic Project, PA

Natural Resources Lead. Managed wetland and stream surveys and reporting for an approximately 41-mile proposed fiber optic line project. Provided USACE/PA DEP permitting support.

#### Transcontinental Gas Pipeline Company, LLC; Transco Pipeline O&M Testing & Maintenance Projects, VA & NC

Natural Resources Lead. Managed and conducted 1) wetland and stream surveys and reporting, 2) Section 404 CWA permitting, and 3) federal and state T&E species consultations for over 30 O&M sites in VA and NC.

#### NextEra Energy Resources; Muskingum Solar Project, OH

Conducted a wetland delineation & stream survey for a 1,250-acre proposed solar energy development project. USACE Eastern Mountains and Piedmont Region. Muskingum Co., OH.

#### EQM Gathering OPCO, LLC; NIPIS Suction Pipeline System Project, PA

Natural Resources Lead. Managed wetland and stream surveys and reporting for an approximately 6-mile proposed suction pipeline project. USACE Eastern Mountains and Piedmont Region. Washington Co., PA.

EQM Gathering OPCO, LLC; NIPIH201 Freshwater Pipeline System Project, PA

Natural Resources Lead. Managed wetland and stream surveys and reporting for an approximately 8-mile proposed freshwater pipeline project. USACE Eastern Mountains and Piedmont Region. Washington Co., PA.

#### EQM Gathering OPCO, LLC; NIBE Natural Gas Pipeline System Project, PA

Natural Resources Lead. Managed wetland, stream, and botanical T&E surveys (single-headed pussytoes, *Antennaria solitaria*, a PA state-listed species) and reporting for an approximately 8-mile proposed natural gas pipeline project. USACE Eastern Mountains and Piedmont Region. Greene Co., PA.

**Kinder Morgan, BMNA Pipeline Project, PA**. Conducted monitoring surveys for PA state-listed species including wild lupine (*Lupinus perennis*), soft-leaved sedge (*Carex disperma*), marsh willowherb (*Epilobium palustre*), and Canadian serviceberry (*Amelanchier canadensis*) for a natural gas pipeline project. Prepared reports for PA state regulatory agencies. PNDI # 19790. Bradford, Susquehanna, and Pike Co., PA.

MarkWest Liberty Midstream and Resources, LLC, Fox to Midway-Candor Pipeline Project, PA. Conducted a wetland delineation & stream survey along 14-mile proposed natural gas pipeline. USACE Eastern Mountains and Piedmont Region. Washington Co., PA.

**Superior Appalachian Pipeline, LLC, Snow Shoe Pipeline Project, PA**. Conducted a wetland delineation/stream survey & a survey for Northeastern bulrush (*Scirpus ancistrochaetus*), a federal and state-listed species, for a 14 mile natural gas pipeline and compressor station project. Prepared reports for PA state regulatory agencies. PNDI #20267. Centre Co., PA.

**Chief Oil & Gas, Korban to Phelps Pipeline Project, PA**. Conducted a wetland delineation/stream survey and a survey for PA state-listed species including bog rosemary (*Andromeda polifolia*) and soft-leaved rush (*Carex disperma*) for a 7-mile natural gas pipeline project. Prepared reports for PA state regulatory agencies. PNDI #20558. Wyoming, Susquehanna, & Lycoming Co., PA.

**Dominion, Appalachian Gateway TL-492 Project, PA**. Conducted surveys for PA state-listed species including puttyroot (*Aplectrum hyemale*), harbinger-of-spring (*Erigenia bulbosa*), white trout-lily (*Erythronium albidum*), and cranefly orchid (*Tipularia discolor*) for a 40-mile natural gas pipeline project. Prepared reports for PA state regulatory agencies. PNDI # 19950. Greene, Washington, & Westmoreland Co., PA.

**Dominion East Ohio, Franklin 20 Storage Pipeline Project, PA**. Conducted surveys for federal-listed species including eastern prairie-fringed orchid (*Platanthera leucophaea*) and northern monkshood (*Aconitum noveboracensis*) for a natural gas pipeline storage project. Prepared reports for USFWS. USFWS 2008- TA-0548. Wayne & Summit Co., OH.

**Columbia Gas, Line 1278/Line K Replacement, PA**. Conducted surveys for NY & PA state-listed species including checkered rattlesnake plantain (*Goodyera tessalata*), prickley pear cactus (*Opuntia humifusa*), and roseroot stonecrop (Sedum rosea) and four habitats of concern for a 12-mile natural gas pipeline replacement project. PNDI # 20474. Prepared reports for NY & PA state regulatory agencies. Pike Co., PA & Orange Co., NY.

Superior Appalachian Pipeline, LLC, Pittsburgh Mills Pipeline Project, PA. Conducted a survey for federal-listed Indiana bat (*Myotis sodalis*) roost trees along a proposed 9-mile gas pipeline in Allegheny Co., PA for winter tree clearing. Coordinated with USFWS on results of the surveys. Allegheny Co. PA.

**NiSource, Crawford Storage Field Expansion Project, OH**. Conducted a survey for potential migratory bird nest holes and crevices in trees along a potential natural gas pipeline ROW for winter clearing of potential nest trees. Assisted in the preparation of the survey report. USFWS Permit # MB213433-0. Fairfield & Hocking Co., OH.



### EXPERIENCE SUMMARY

Mr. Korey McCluskey is a wetland/environmental scientist with 11+ years of experience in wetland delineation, stream evaluation, State and Federal rare, threatened & endangered (SOSC) botanical surveying and assessment, and construction monitoring throughout Pennsylvania, Ohio, West Virginia, New Jersey and New York. Korey has performed hundreds of wetland delineations and stream evaluations as well as conducted numerous botanical surveys, habitat assessments, and related report generation. Korey is on the USFWS short list of qualified surveyors for the federally listed Running Buffalo Clover, Small Whorled Pogonia, and Virginia Spirea in West Virginia. He has provided environmental consultation to clients in the commercial Oil and Gas, residential development, and public utility sectors to ensure compliance with local, state, and federal environmental regulations and ordinances through the environmental permitting process, including minimization of impacts to aquatic and terrestrial resources. This permitting, documentation, and guidance includes the preparation of wetland delineation and stream evaluation reports, botanical reports, wetland creation, wetland monitoring, 401, 404, 105 and related state and local permits, assisting with environmental assessments, and preparation of other environmental reports. He also has experience performing Phase 1 bat hibernaculum and summer roost tree habitat surveys in Western Pennsylvania, Ohio, and West Virginia.

#### **RELEVANT EXPERIENCE**

#### **PERMITTING (OIL/GAS)**

Wetland/Environmental Scientist IV - Department Technical Lead; Stonehenge Appalachia, L.L.C.; Renick to Shields Natural Gas Pipeline Project, Butler County, Pennsylvania; January 2016 to present. Responsibilities included co-preparing the Joint Permit application and all associated agency documentation to permit anticipated impacts along a 7.9 mile proposed pipeline.

Wetland/Environmental Scientist IV - Department Technical Lead; Equitrans, L.P. (Equitrans); Equitrans Expansion Project (EEP), Allegheny, Washington, and Greene Counties, Pennsylvania; March 2016 to present. Responsibilities included assisting in preparing permit documents for the 401 Water Quality Certification. Additional work included preparation of many of the required components of a Joint Permit.

Wetland/Environmental Scientist IV - Department Technical Lead; Sunoco Logistics; S P L P Houston Tank Farm Project, Washington County, Pennsylvania; May 2015 to present. Responsibilities included performing a supplemental wetland delineation, functions and values assessment, wetland report, and Joint Permit preparation for the proposed wetland impacts at the 21 acre proposed tank farm Project.

# Korey M. McCluskey Environmental Scientist IV

#### **EDUCATION**

B.A., Environmental Sciences, University of Pittsburgh, April. 2006

Geographical Information Systems (GIS) Certificate, University of Pittsburgh, April. 2006

#### REGISTRATIONS

Wild Plant Management Permit, PA, since 2013, Permit # 19-624

USFWS Certified Qualified Surveyor for the Federally Listed Running Buffalo Clover, Small Whorled Pogonia, and Virginia Spirea in West Virginia. Since May 2015

#### AREA OF EXPERTISE

Wetland Delineation and Stream Identification, State and Federal RTE Botanical Surveys, & Aquatic Resource Permitting.

#### TRAINING/CERTIFICATIONS

USFWS and WV DNR Sponsored Training for the Identification of the Federally Listed Running Buffalo Clover, Virginia Spirea, and Small Whorled Pogonia, May 2015.

2015 PA Plant Forum and Winter Woody ID workshop. Sponsored by the PA DCNR and Western Pennsylvania Conservancy, April 2015.

Creation and Restoration of Wetlands - The Olentangy River Wetland Research Park, The Ohio State University, July 2011.

Identification of Freshwater Wetland Sedges, Grasses, and Rushes - Pennsylvania Institute for Conservation Education, August 2010.

Ohio Rapid Assessment Method (ORAM) for Wetlands v. 5.0- Ohio Environmental Protection Agency, March. 2009.

ACOE-based 40-hour Wetland Delineation Certification - March. 2007.

#### OFFICE

Pittsburgh, PA

YEARS OF EXPERIENCE

10+

#### **YEARS WITHIN FIRM**

5+

#### CONTACT

Korey.McCluskey@TetraTech.com

Wetland/Environmental Scientist IV; MVP; Mountain Valley Pipeline Project, Multiple Counties, West Virginia and Virginia; 2016 to present. Responsibilities included assisting with review and compilation of multiple county wetland delineation reports and aiding in Nationwide Permit and 401 Water Quality Certification packages.

Wetland/Environmental Scientist IV; Department Technical Lead; Various Oil & Gas Projects, PNDI Sensitive Species Reviews and Agency Coordination, [primarily] Pennsylvania, Ohio, and West Virginia; 2016 to present. Responsibilities included running PNDI searches and providing results for sensitive species hits for multiple Oil & Gas related projects. Agency coordination and requested report generation or submittal; including large and small project PNDI package submittals.

### **BOTANICAL FIELD WORK (OIL/GAS)**

Wetland/Environmental Scientist IV - Department Technical Lead; Kinder Morgan, Inc.; TGP 300 Line Project Plant Species of Special Concern (SOSC) Monitoring Report, Rare, Threatened, and Engendered Species Surveys; 6 listed Species of Special Concern (SOSC); June 2017. SOSC botanical monitoring surveys were performed for six species along TGP Loop 317, TGP Loop 321, and TGP Loop 323 in Bradford County, Susquehanna County, and Pike County, respectively. A Plant Species of Special Concern Monitoring Report was prepared for Kinder Morgan for submission to PA state regulatory agencies.

Wetland/Environmental Scientist IV - Department Technical Lead; Kinder Morgan, Inc.; TGP 300 Line Project Trailside Assessment Surveys and Botanical reconnaissance in the Bearfort Mountain Natural Area (BMNA) and the Abraham S. Hewitt State Forest (AHSF); June 2016. New Jersey. Trailside Assessments of the trails throughout the BMNA and AHSF. Assessed trail conditions, took photographs, and recorded botanical species in specified botanical niches throughout the two natural areas. A New Jersey state listed species of special concern Water Sedge (*Carex aquatilis*) that had not be previously identified in the area was recorded and reported.

Wetland/Environmental Scientist IV - Department Technical Lead; Sunoco Logistics; OPP and PPP Natural Gas Pipeline Projects, Rare, Threatened, and Engendered Species Surveys; 43 listed Species of Special Concern (SOSC); March 2014 to present. Pennsylvania. Segments 1, 2, and 3 Botanical Survey Lead, and crew leader. Responsibilities included organizing and conducting all field work operations for multiple botanical crews, conducted botanical surveys for 43+ PA State listed species for the 350 miles of proposed pipeline installation for the Ohio Pipeline (OPP) and Pennsylvania Pipeline Projects (PPP). Additional work included proposing potential re-routes and avoidance recommendations on a potential environmental impact basis, and preparing Botanical Reports, Conservation Plans, and Monitoring for the Project. Also aided in conducting a RTE survey for the federally listed Running Buffalo Clover in the WV segment of OPP.

**June 2017 to present.** Pennsylvania. Segments 1, 2, and 3 Botanical Survey Lead, and crew leader. Responsibilities included pre-construction surveying, sensitive species location confirmation, and documentation. Construction and post-construction monitoring to occur for sensitive species with PADCNR commitments in the coming months.

Wetland/Environmental Scientist IV - Department Technical Lead; Noble Energy, Inc.; Dunkard Fork Water Withdrawal Project; Greene County, PA; June 2014 to September 2014. Responsible for conducting botanical surveys and habitat assessments for 5 listed SOSC. Responsible for preparing a botanical survey and habitat assessment report in support of permit submissions.

Wetland/Environmental Scientist IV - Department Technical Lead; Rice Poseidon Midstream, LLC; North Fork Dunkard Fork Water Withdrawal Project; Greene County, PA; December 2014 to January 2015. Responsible for conducting a botanical habitat assessment for 2 listed SOSC. Responsible for preparing a botanical habitat assessment report in support of permit submissions.

Wetland/Environmental Scientist III; Sunoco Logistics; Mariner East [ME1] Pipeline Project Natural Gas Pipeline Projects, Rare, Threatened, and Engendered Species Surveys; 8 listed Species of Special Concern (SOSC); April 2013 to August 2013. Botanical Survey Lead, and crew leader. Responsibilities included organizing and conducting all field work operations for multiple botanical crews, conducted botanical surveys for the 20 miles of the 40 mile proposed pipeline installation Mariner East [ME1] Pipeline Project. Additional work included proposing potential avoidance recommendations based on a potential environmental impact basis.

Wetland/Environmental Scientist IV - Department Technical Lead; Rice Drilling B, LLC; Fink Pond Impoundment Project; Greene County, PA; October 2014. Responsible for conducting a wetland delineation and stream investigation, as well as a botanical survey for 2 listed SOSC. Responsible for preparing a wetland delineation delineation and stream identification report and a botanical survey report in support of permit submissions.

Wetland Scientist; MEPCO, LLC.; Coresco Overland Coal Conveyor Project; Greene (PA) and Monogalia (WV) Counties. Responsible for wetland delineation and review and stream evaluation of a 10 mile overland coal conveyor. Rare, threatened, and endangered species (SOSC) survey and permitting services were provided.

### AQUATIC RESOURES FIELD WORK (OIL/GAS)

Wetland/Environmental Scientist IV - Department Technical Lead; Sunoco Logistics; OPP and PPP Natural Gas Pipeline Projects, Multiple Counties across Ohio, West Virginia, and Pennsylvania; October 2013 to present. Responsibilities included aiding in wetland delineations, stream assessments, and report preparation for the proposed 450 miles of the Ohio Pipeline (OPP) and Pennsylvania Pipeline Projects (PPP).

Wetland/Environmental Scientist IV - Department Technical Lead; Dominion Transmission, Inc.; Lebanon West II - TL-400 FERC Pipeline Project; Tuscarawas, Licking, Muskingum, Harrison, Coshocton, Columbiana, and Carroll Counties, Ohio (OH) and in Beaver County, Pennsylvania (PA); June 2014 to present. Responsible for conducting wetland delineations and stream evaluations for the natural gas pipeline replacement segments of the TL-400 FERC Pipeline Project. Specific tasks included field surveys, report preparation, and completion of Ohio EPA specific wetland and stream assessments.

**July 2017 to present.** Ohio. Field Survey Lead. Responsibilities included post-construction wetland and stream restoration monitoring and report generation. Restoration monitoring surveys included documentation of restoration efforts at impacted aquatic resources, tabular and graphical representations of restoration progress, and technical reporting and recommendations to achieve post-construction permit closure conditions set forth by USACE and OEPA.

Wetland/Environmental Scientist IV - Department Technical Lead; MarkWest Liberty Midstream and Resources, LLC; Harmon Creek to Houston [Fox to Houston] Pipeline Project, Washington Co., PA. Responsible for conducting wetland delineation & stream surveys along 20-mile proposed natural gas pipeline and associated report generation.

Wetland/Environmental Scientist IV - Department Technical Lead; MarkWest Liberty Midstream and Resources, LLC; Fox to National Fuels Pipeline Project, Washington Co., PA. Responsible for conducting wetland delineation & stream surveys along 2-mile proposed natural gas pipeline and associated report generation.

Wetland/Environmental Scientist IV - Department Technical Lead; MarkWest Liberty Midstream and Resources, LLC; Fox to Midway-Candor Pipeline Project, Washington Co., PA. Responsible for conducting wetland delineation & stream surveys along 14-mile proposed natural gas pipeline and associated report generation.

Wetland/Environmental Scientist IV - Department Technical Lead; MarkWest Liberty Midstream and Resources, LLC; Imperial to Midway-Candor Pipeline Project, Washington Co., PA. Responsible for conducting wetland delineation & stream surveys along 1-mile proposed natural gas pipeline and associated report generation.

Wetland/Environmental Scientist IV - Department Technical Lead; MarkWest Liberty Midstream and Resources, LLC; Wetland Delineations for Miscellaneous Natural Gas Pipeline Projects; Washington, Beaver, Allegheny, and Butler Counties. Responsible for performing with wetland delineations for various proposed natural gas pipeline projects in southwestern Pennsylvania. Specific tasks included leading aquatic resource field surveys, report generation, and client and agency coordination.

Wetland/Environmental Scientist IV - Department Technical Lead; Chevron Appalachia, LLC; Various Water Withdrawal Projects; Greene, Fayette, Washington Counties (PA); 2014 to 2016. Responsible for conducting numerous wetland delineations and stream evaluations for proposed water withdrawal projects located in southwestern Pennsylvania. Also prepared wetland delineation and stream assessment reports for each project in support of permit submissions.

Wetland/Environmental Scientist IV - Department Technical Lead; Noble Energy, Inc.; Various Water Withdrawal Projects; Greene, Fayette, Washington Counties (PA), and Marshall County (WV); March 2014 to 2016. Responsible for conducting numerous wetland delineations and stream evaluations for proposed water withdrawal projects located in southwestern Pennsylvania and the panhandle of West Virginia. Also prepared wetland delineation and stream assessment reports for each project in support of permit submissions.

Wetland/Environmental Scientist IV - Department Technical Lead; Noble Energy, Inc.; Wolfe Run Reservoir Water Withdrawal, Water Pipeline, and Access Road Project; Marshall County, WV; May 2014 to September 2014. Responsible for conducting a wetland delineation and stream evaluation for a proposed water withdrawal, water pipeline, and its associated access road. Also prepared a wetland delineation and stream assessment report in support of permit submissions.

Wetland/Environmental Scientist IV - Department Technical Lead; Rice Drilling D, LLC; Various Water Withdrawal Projects; Harrison and Belmont Counties (OH); March 2014 to present. Responsible for conducting numerous wetland delineations and stream evaluations for proposed water withdrawal projects located in eastern Ohio. Also prepared wetland delineation and stream assessment reports for each project in support of permit submissions.

Wetland/Environmental Scientist IV - Department Technical Lead; Rice Poseidon Midstream, LLC; Waterboy to Pollock Natural Gas Pipeline Project; Washington County, PA; July 2014 to January 2015. Responsible for conducting a wetland delineation and stream identification survey. Responsible for preparing a wetland delineation report in support of permit submissions.

Wetland/Environmental Scientist IV; MarkWest Liberty Midstream and Resources, LLC; Boyscout Camp Wetland Restoration Project & Post-Restoration Monitoring; Harrison County, PA; November 2012 to present. Responsible for evaluating post-impact conditions at a recently disturbed wetland, assist in designing a USACE approved wetland restoration plan. Plans included survey of current and proposed wetland habitats, elevations, and hydrologic inputs; planting/seeding plan and implementation instructions; and construction/earthwork calculations and implementation instructions. Also responsible for wetland restoration monitoring for the past two years.

Wetland/Environmental Scientist III; MarkWest Ohio Gathering Company, LLC; Wetland Delineations for Miscellaneous Natural Gas Pipeline Projects; Ohio. Responsible for performing and assisting with wetland delineations for various proposed natural gas pipeline projects in eastern Ohio. Specific tasks included field survey, report preparation, and completion of Ohio EPA specific wetland and stream assessments.

Wetland/Environmental Scientist III; Gulfport Energy Corporation; Wetland Delineations for Miscellaneous Natural Gas Well Pad Projects; Ohio. Responsible for performing and assisting with wetland delineations for various proposed natural well pads southeastern Ohio. Specific tasks included field survey, report preparation, and completion of Ohio EPA specific wetland and stream assessments.

Wetland/Environmental Scientist III; Williams/Laurel Mountain Midstream Operations, LLC; Brown to Davis Natural Gas Pipeline Project; Fayette County, PA; January 2013 to present. Conducted a wetland delineation and stream evaluation for the Brown to Davis natural gas pipeline project. Also prepared a wetland delineation and stream evaluation report in support of permit submissions.

Wetland Scientist; Joseph and Lori Baker; Baker Property Wetland Restoration Project; Derry Township, Westmoreland County, PA; March 2010 to June 2010. As onsite environmental consultant to Joseph and Lori Baker, responsible for wetland and stream encroachment survey and assessment and assisted with a wetland restoration design and planting/seeding design.

Wetland Scientist/Project Manager; Range Resources; Multiple Temporary and Permanent Water Pipelines; Washington County, Pennsylvania. 2010 to 2011. Mr. McCluskey was responsible for wetland delineations and stream evaluations on dozens of temporary and permanent water pipelines linking frac water impoundments in the Washington County area.

### AQUATIC RESOURES FIELD WORK (ENERGY TRANSMISSION)

Wetland Scientist; Orange & Rockland Utilities, Inc., Counties of Bergen (NJ) and Rockland (NY); Transmission Line 702 – Proposed Shield Wire Replacement Project; November 2008 to February 2009. Responsible for wetland delineation and stream evaluation of a 500 foot wide, 10 mile long transmission line corridor.

### AQUATIC RESOURES FIELD WORK (MINING)

Wetland Scientist; Rosebud Mining Company; Kiski Junction Railroad Allegheny River Spur Re-activation Project; Bethel and Gilpin Townships, Armstrong County, PA; 2007 to 2008. As onsite environmental consultant to Rosebud Mining Company, responsible for wetland delineation and assisted with the preparation of a Joint Permit Application for USACE Individual Permit, as well as assisting with wetland mitigation site search and wetland mitigation design for railroad re-activation project.

Wetland Scientist; MEPCO, LLC.; Coresco Overland Coal Conveyor Project; Greene (PA) and Monogalia (WV) Counties. Responsible for wetland delineation and review and stream evaluation of a 10 mile overland coal conveyor. Rare, threatened, and endangered species (SOSC) survey and permitting services were provided.

### CHRONOLOGICAL HISTORY

Wetland/Environmental Scientist IV - Department Technical Lead; Tetra Tech, Inc.; Pittsburgh, PA, June 2014 – Present.

Wetland/Environmental Scientist III; Tetra Tech, Inc.; Pittsburgh, PA, October 2012 – June 2014.

Wetland Specialist/Project Manager; Pennsylvania Soil & Rock, Inc.; Monroeville, PA, May 2010 - October 2012.

Wetland/Environmental Specialist; Pennsylvania Soil & Rock, Inc.; Monroeville, PA, March 2008 – May 2010.

Wetlands Technician/Field Technician; Pennsylvania Soil & Rock, Inc.; Monroeville, PA, November 2006 - March 2008.

Park Naturalist; Frick Environmental Center – City of Pittsburgh; Pittsburgh, PA, April 2006 – November 2006.

#### **MEMBERSHIPS**

- Society of Wetland Scientists (SWS)
- Botanical Society of Western Pennsylvania (BSWP)

**Attachment D: Notified Officials** 

Construction Notice – Case No. 19-1778-GA-BNR South Field Energy LLC SFE Natural Gas Interconnection

Vorys, Sater, Seymour and Pease LLP Legal Counsel 52 East Gay Street P.O. Box 1008 Columbus, Ohio 43216-1008

614.464.6400 | www.vorys.com

Founded 1909

MacDonald W. Taylor Direct Dial (614) 464-5413 Direct Fax (614) 719-4826 Email mwtaylor@vorys.com

October 25, 2019

Columbiana County Regional Planning Commission 28 W. Friend Street Columbiana, OH 44408

### Re: South Field Energy LLC Construction Notice OPSB Case No. 19-1778-GA-BNR

To Whom It May Concern:

Accompanying this letter is a copy of a construction notice filed today with the Ohio Power Siting Board regarding a minor shift in a natural gas pipeline previously permitted by the Board in Case No. 16-1166-GA-BLN. The shift will consist of an approximately .5 mile "bump-out" just north of the approved pipeline corridor.

Please contact me if you have any questions.

Very truly yours,

WTo

MacDonald W. Taylor Vorys, Sater, Seymour and Pease LLP Attorneys for South Field Energy LLC



Vorys, Sater, Seymour and Pease LLP Legal Counsel 52 East Gay Street P.O. Box 1008 Columbus, Ohio 43216-1008

614.464.6400 | www.vorys.com

Founded 1909

MacDonald W. Taylor Direct Dial (614) 464-5413 Direct Fax (614) 719-4826 Email mwtaylor@vorys.com

October 25, 2019

Wellsville Carnegie Public Library 115 Ninth Street Wellsville, OH 43968

> Re: South Field Energy LLC Construction Notice OPSB Case No. 19-1778-GA-BNR

To Whom It May Concern:

Accompanying this letter is a copy of a construction notice filed today with the Ohio Power Siting Board regarding a minor shift in a natural gas pipeline previously permitted by the Board in Case No. 16-1166-GA-BLN. The shift will consist of an approximately .5 mile "bump-out" just north of the approved pipeline corridor.

Please place this in an appropriate area of your library where it will be accessible to the public, and please contact me if you have any questions.

Please contact me if you have any questions.

Very truly yours,

MacDonald W. Taylor Vorys, Sater, Seymour and Pease LLP Attorneys for South Field Energy LLC

Vorys, Sater, Seymour and Pease LLP Legal Counsel 52 East Gay Street P.O. Box 1008 Columbus, Ohio 43216-1008

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Founded 1909

MacDonald W. Taylor Direct Dial (614) 464-5413 Direct Fax (614) 719-4826 Email mwtaylor@vorys.com

October 25, 2019

Kenneth Biacco Glenn McKenzie Mark Allison Yellow Creek Township Trustees c/o Debra A. Lyle, Fiscal Officer 1075 Township Line Road Wellsville, OH 43968

> Re: South Field Energy LLC Construction Notice OPSB Case No. 19-1778-GA-BNR

Ms. Lyle:

Accompanying this letter is a copy of a construction notice filed today with the Ohio Power Siting Board regarding a minor shift in a natural gas pipeline previously permitted by the Board in Case No. 16-1166-GA-BLN. The shift will consist of an approximately .5 mile "bump-out" just north of the approved pipeline corridor.

Please contact me if you have any questions.

Very truly yours,

C

MacDonald W. Taylor Vorys, Sater, Seymour and Pease LLP Attorneys for South Field Energy LLC

Vorys, Sater, Seymour and Pease LLP Legal Counsel

614.464.6400 | www.vorys.com

Founded 1909

MacDonald W. Taylor Direct Dial (614) 464-5413 Direct Fax (614) 719-4826 Email mwtaylor@vorys.com

October 25, 2019

Columbiana County Commissioners 105 South Market Street Lisbon, OH 44432

> Re: South Field Energy LLC Construction Notice OPSB Case No. 19-1778-GA-BNR

Commissioners:

Accompanying this letter is a copy of a construction notice filed today with the Ohio Power Siting Board regarding a minor shift in a natural gas pipeline previously permitted by the Board in Case No. 16-1166-GA-BLN. The shift will consist of an approximately .5 mile "bump-out" just north of the approved pipeline corridor.

Please contact me if you have any questions.

Very truly yours,

7.7

MacDonald W. Taylor Vorys, Sater, Seymour and Pease LLP Attorneys for South Field Energy LLC

Vorys, Sater, Seymour and Pease LLP Legal Counsel

614.464.6400 | www.vorys.com

Founded 1909

MacDonald W. Taylor Direct Dial (614) 464-5413 Direct Fax (614) 719-4826 Email mwtaylor@vorys.com

October 25, 2019

Columbiana Soil and Water Conservation District 1834 S Lincoln Avenue Salem, OH 44460

> Re: South Field Energy LLC Construction Notice OPSB Case No. 19-1778-GA-BNR

To Whom It May Concern:

Accompanying this letter is a copy of a construction notice filed today with the Ohio Power Siting Board regarding a minor shift in a natural gas pipeline previously permitted by the Board in Case No. 16-1166-GA-BLN. The shift will consist of an approximately .5 mile "bump-out" just north of the approved pipeline corridor.

Please contact me if you have any questions.

Very truly yours,

MacDonald W. Taylor Vorys, Sater, Seymour and Pease LLP Attorneys for South Field Energy LLC

Vorys, Sater, Seymour and Pease LLP Legal Counsel

614.464.6400 | www.vorys.com

Founded 1909

MacDonald W. Taylor Direct Dial (614) 464-5413 Direct Fax (614) 719-4826 Email mwtaylor@vorys.com

October 25, 2019

Columbiana Public Library 332 N. Middle Street Columbiana, OH 44408

> Re: South Field Energy LLC Construction Notice OPSB Case No. 19-1778-GA-BNR

To Whom It May Concern:

Accompanying this letter is a copy of a construction notice filed today with the Ohio Power Siting Board regarding a minor shift in a natural gas pipeline previously permitted by the Board in Case No. 16-1166-GA-BLN. The shift will consist of an approximately .5 mile "bump-out" just north of the approved pipeline corridor.

Please place this in an appropriate area of your library where it will be accessible to the public, and please contact me if you have any questions.

Please contact me if you have any questions.

Very truly yours,

MacDonald W. Taylor Vorys, Sater, Seymour and Pease LLP Attorneys for South Field Energy LLC

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

10/25/2019 3:49:38 PM

in

Case No(s). 19-1778-GA-BNR

Summary: Application Construction Notice - South Field Energy Natural Gas Pipeline Interconnection (Part 4 of 4) electronically filed by Mr. MacDonald W Taylor on behalf of South Field Energy LLC