

Public Notice

**U.S. Army Corps
of Engineers**
Pittsburgh District

In Reply Refer to
Notice No. below

US Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Application No. 2012-1750

Date: May 23, 2019

Notice No. 19-36

Closing Date: June 23, 2019

1. TO ALL WHOM IT MAY CONCERN:

The Stream and Wetlands Foundation has proposed the Entrikin Farm mitigation site to be incorporated into their In-Lieu Fee Mitigation Program (ILFP). A Prospectus has been submitted to the Pittsburgh District Corps of Engineers for this site pursuant to 33 CFR 332.8 and 40 CFR 230.98.

This does not constitute an application for regulated work in Waters of the United States. The 2008 Mitigation Rule defines in-lieu fee projects and mitigation banks as a site, or suite of sites, where resources (e.g. wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by DA permits pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. In general, units of restored, established, enhanced, or preserved wetlands or streams are expressed as “credits” which may subsequently be withdrawn to offset “debits” incurred at a project development site(s). The Corps, in conjunction with input from the Interagency Review Team, is responsible for authorizing the use of a particular mitigation bank on a project specific basis and determining the number and availability of credits required to compensate for proposed impacts. The purpose of this Public Notice is to inform you of the proposed mitigation bank and to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

2. INTERAGENCY REVIEW TEAM: As indicated in the Corps regulations (33 CFR 332.8(b)), the district engineer will establish an Interagency Review Team (IRT) to review documentation for the establishment and management of mitigation banks and in-lieu fee (ILF) programs. The primary role of the IRT is to facilitate the establishment of mitigation banks and/or ILF programs through the development of mitigation banking or ILF program instruments. The IRT reviews draft prospectuses, prospectuses, instruments, and other documents and provides comments to the Corps.

3. SPONSOR: Stream + Wetlands Foundation
123 South Broad Street, Suite 238
P.O. Box 369
Lancaster, Ohio 43130

4. LOCATION: The Stream and Wetlands Foundation is in the process of securing property consisting of waterways and wetlands on agricultural land within the Stone Mill Run-Middle

Fork Beaver Creek (HUC-12 050301010403) of the Upper-Ohio Watershed (HUC-8 05030101). The site is 48.3 acres and straddles Old State Route 558, north of State Route 558 in northern Columbiana County on the Lisbon Quadrangle of the United States Geological Survey. The Project’s limits include a large portion of Stone Mill Run as well as an agricultural field to the east. The site drains to Middle Fork Little Beaver Creek, which ultimately joins West Fork Little Beaver Creek to form Little Beaver Creek and flows into the Ohio River at Glasglow, Pennsylvania. The Project’s approximate center coordinates are: 40.858646, -80.796747

5. **PURPOSE AND DESCRIPTION OF WORK:** The Stream and Wetlands Foundation proposes to establish the Entrikin Farm in lieu fee site within the approved Stream and Wetlands In Lieu Fee Program Umbrella Mitigation Banking Instrument. The primary objectives of the site are to generate wetland and stream mitigation credits to fulfill advance credits sold to permittees through the Stream and Wetlands Foundation in the Upper Ohio and Upper Ohio-Wheeling 8-digit HUC watersheds. The proposed site will include areas that will generate credits through wetland restoration, wetland rehabilitation, upland forest restoration, and stream restoration. The plan proposes to implement natural channel design, promote hydrology restoration, micro-topography restoration, and installation of native trees, shrubs, and seed mixes. In areas degraded by agriculture or Non-native invasive plants, cattle exclusions and appropriate physical or chemical control means will be implemented. Portions of the site’s active restoration area in the existing agricultural field and pasture that do not convert to wetland will be restored to upland forest. Additionally, a berm will be constructed in the south and east of the wetland restoration area and will be planted with trees to restore forest.

The Entrikin Farm site will be designed, constructed, and managed to maintain the following specific goals:

	Mitigation Type	Proposed Resource Type	Size (acres, linear feet)	Credit Ratio (percentage)	Credits
Wetlands	Re-establishment	forested wetland	19.6	1:1 (100%)	19.6
	Re-establishment	forested wetland (within buffer)	1.3	1:2 (50%)	0.7
	Rehabilitation	forested wetland	14.0	1:2 (50%)	7.0
	Rehabilitation	forested wetland (within buffer)	1.2	1:4 (50%)	0.3
	Re-establishment	forested upland (within 50 m of wetland)	4.1	1:4 (25%)	1.0
	Total Wetland Credits				28.6
Streams	Restoration, Activity Level 1	perennial stream	2,020	1.75:1 (175%)	3,535
	Restoration, Activity Level 1	intermittent stream	369	1.75:1 (175%)	646
	Total Stream Credits				4,181

6. WATER QUALITY CERTIFICATION: For any potential work in Waters of the United States a permit will not be granted until Water Quality Certification is received or waived from:

Ohio Environmental Protection Agency (Ohio EPA)
Section 401 Coordinator
PO Box 1049
Columbus, Ohio 43266-0149
Telephone Number: 614-644-2001

7. IMPACT ON NATURAL RESOURCES: The District Engineer has consulted the most recently available information and has determined that the project may affect, but is not likely to adversely affect endangered species or threatened species, or result in destruction or adverse modification of habitat of such species which has been determined to be critical. This Public Notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended). If the U.S. Fish and Wildlife Service concurs with the may affect, not likely to adversely affect determination please respond with written concurrence.

8. IMPACT ON CULTURAL RESOURCES: The National Register of Historic Places has been consulted, and it has been determined that there are no properties currently listed on the register which are in the vicinity of the proposed work. The project, as proposed, will have no adverse effect on Historic or Cultural properties. If we are made aware, as a result of comments received in response to this notice, or by other means, of specific archeological, scientific, prehistorical, or historical sites or structures which might be affected by the proposed work, the District Engineer will immediately take the appropriate action necessary pursuant to the National Historic Preservation Act of 1966 - Public Law 89-665 as amended (including Public Law 96-515).

9. PUBLIC INVOLVEMENT: Issuance of a public notice regarding proposed mitigation banks is required pursuant to the "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule," (Rule) as published in the April 10, 2008, Federal Register, Vol. 73, No. 70, Pages 19594-19705 (33 CFR Parts 332). The United States (U.S.) Army Corps of Engineers' (Corps) is soliciting comments from the public, Federal, state, and local agencies and officials, Indian Tribes and other interested parties in order to consider and evaluate this proposed mitigation bank.

10. EVALUATION: Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposals must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the

proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny approval for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above.

11. RESPONSES: Written statements concerning the proposed activity should be received in this office on or before the closing date of this Public Notice in order to become a part of the record and to be considered in the final determination. Any objections which are received during this period may be forwarded to the applicant for possible resolution before the determination is made whether to approve or deny the request. All responses to this notice should be directed to the Regulatory Division, attn Matthew Gilbert at the below address, by telephoning (412) 395-7189, or by e-mail at matthew.c.gilbert@usace.army.mil.

Please refer to CELRP-OP-F 2012-1750 in all responses.

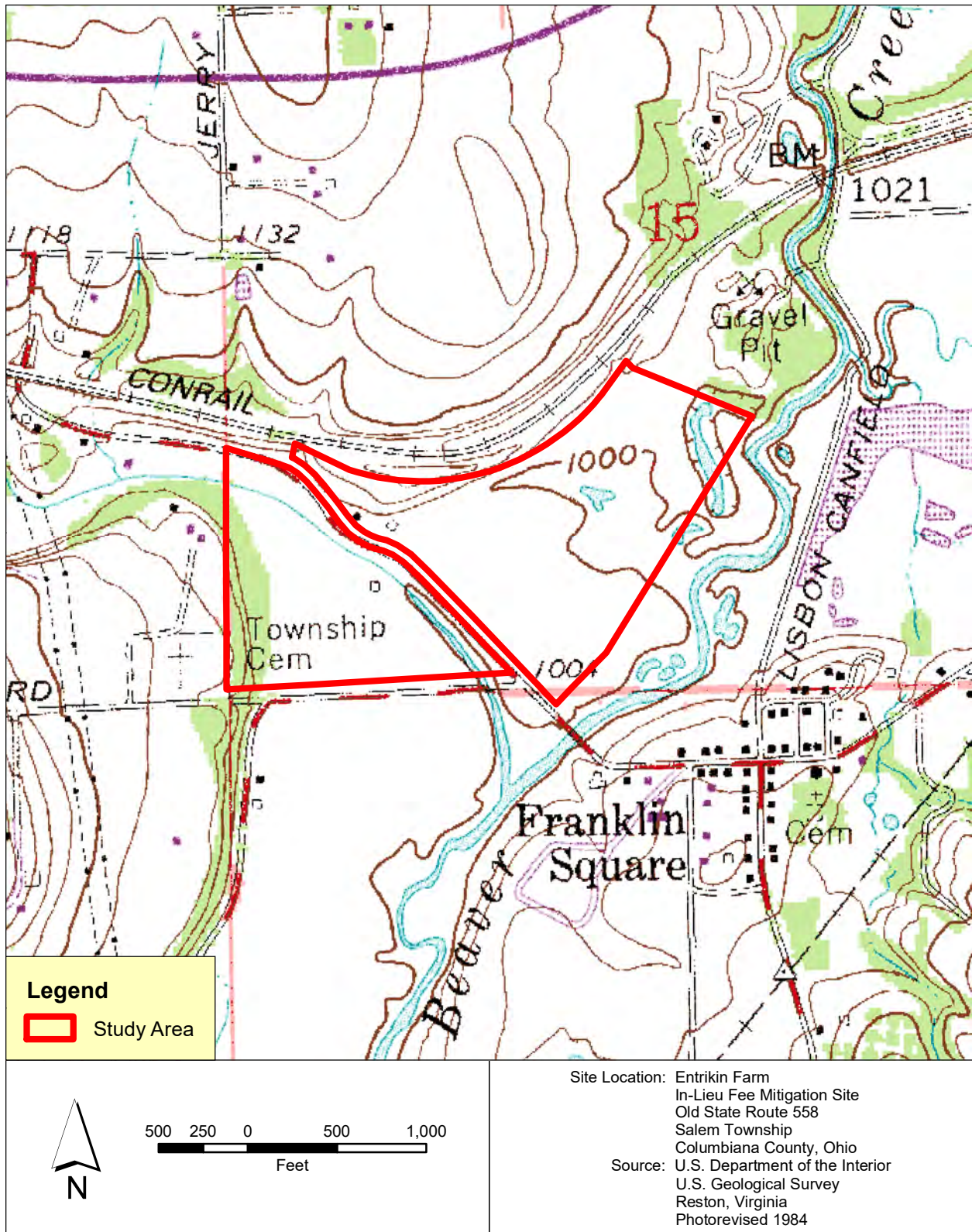
U.S. Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186
Re: Public Notice CELRP-OP-F No. 16-51

FOR THE DISTRICT ENGINEER:

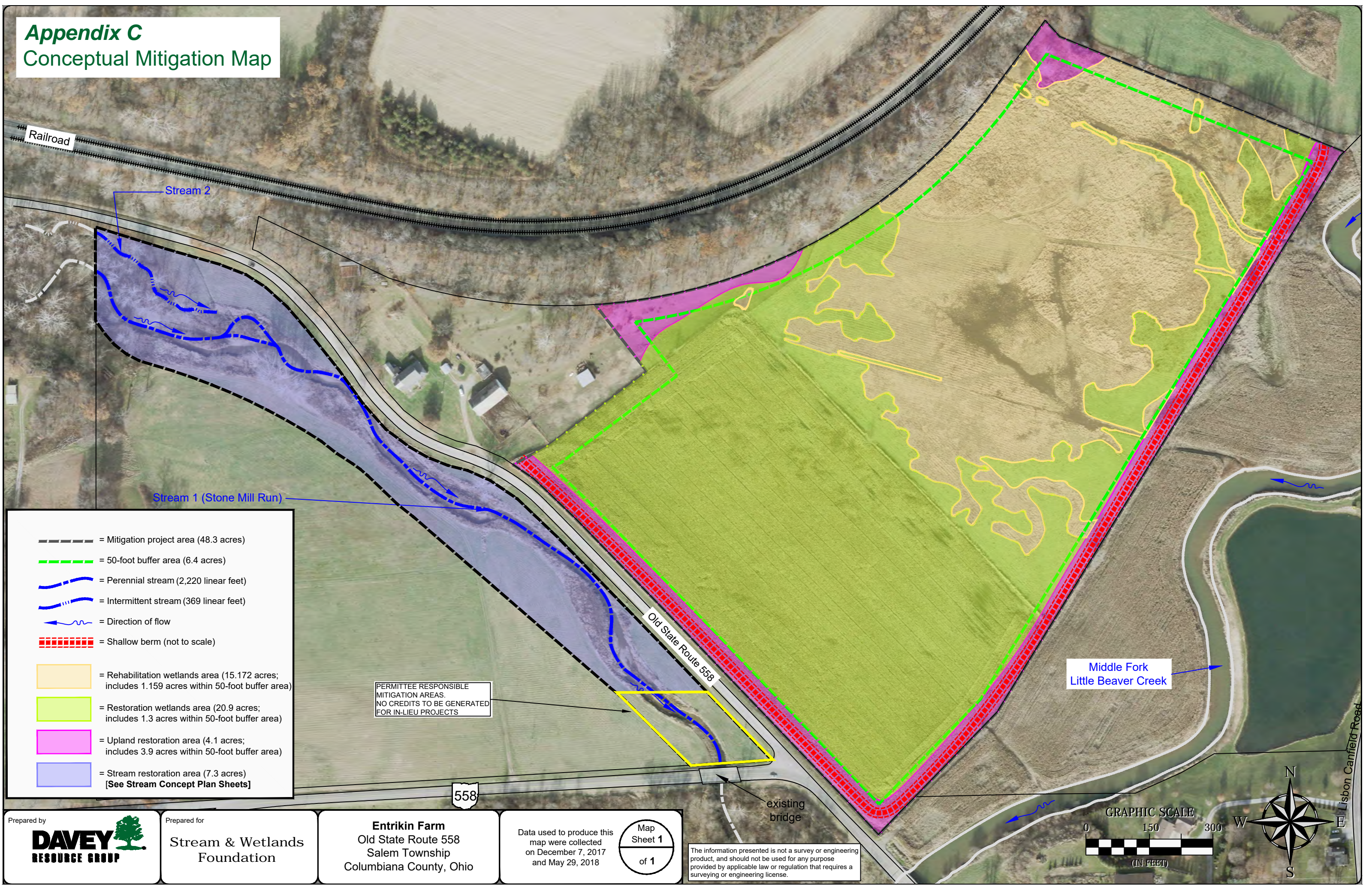
/SIGNED/








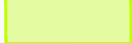


Tyler J. Bintrim
Chief, North Branch, Regulatory Branch

Appendix E
Location of Project Site on
USGS 7.5-Minute Topographic Map
(Lisbon Quadrangle)

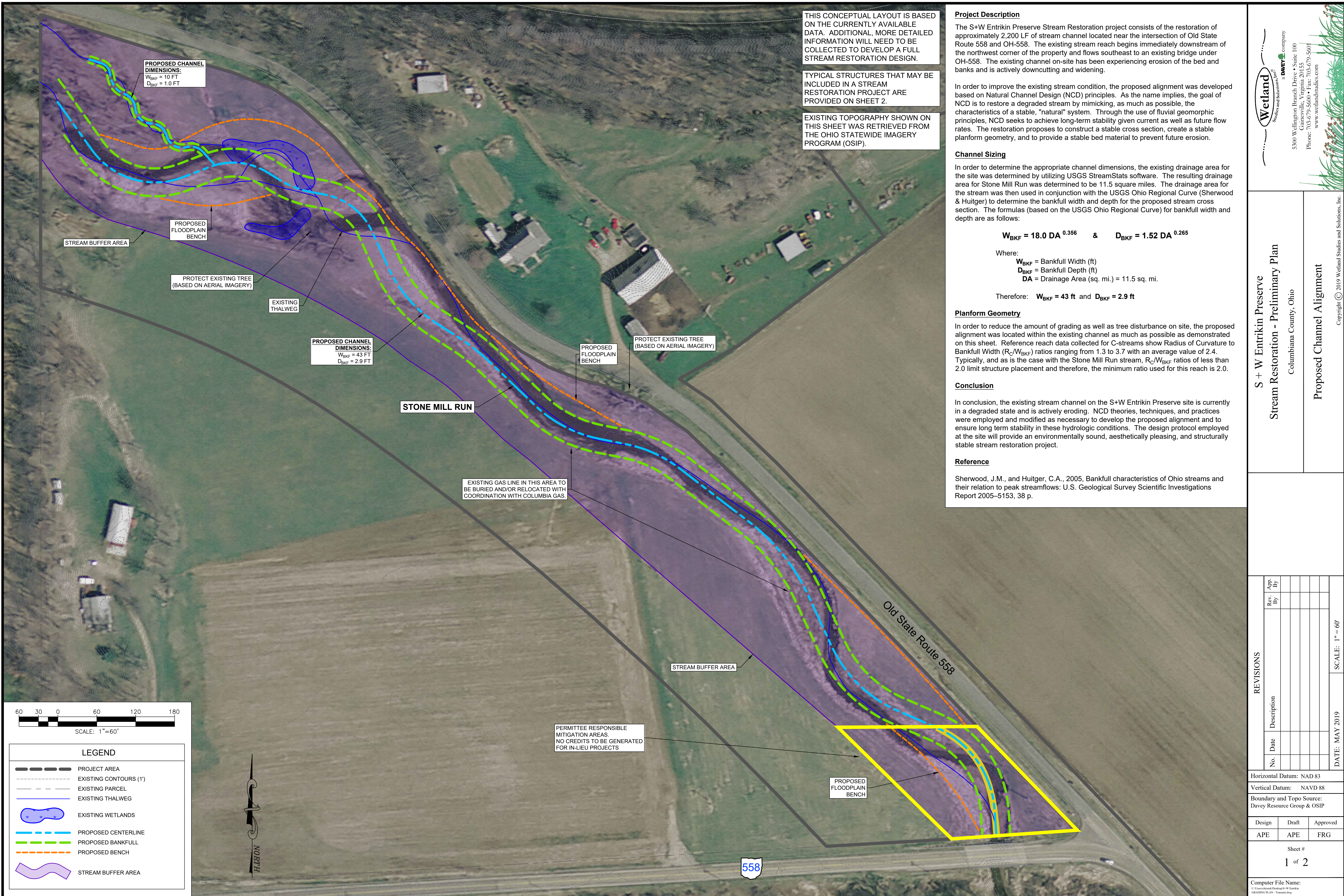


Appendix C Conceptual Mitigation Map



-  = Mitigation project area (48.3 acres)
-  = 50-foot buffer area (6.4 acres)
-  = Perennial stream (2,220 linear feet)
-  = Intermittent stream (369 linear feet)
-  = Direction of flow
-  = Shallow berm (not to scale)
-  = Rehabilitation wetlands area (15.172 acres; includes 1.159 acres within 50-foot buffer area)
-  = Restoration wetlands area (20.9 acres; includes 1.3 acres within 50-foot buffer area)
-  = Upland restoration area (4.1 acres; includes 3.9 acres within 50-foot buffer area)
-  = Stream restoration area (7.3 acres) [See Stream Concept Plan Sheets]

PERMITTEE RESPONSIBLE
MITIGATION AREAS.
NO CREDITS TO BE GENERATED
FOR IN-LIEU PROJECTS



THIS CONCEPTUAL LAYOUT IS BASED ON THE CURRENTLY AVAILABLE DATA. ADDITIONAL, MORE DETAILED INFORMATION WILL NEED TO BE COLLECTED TO DEVELOP A FULL STREAM RESTORATION DESIGN.

TYPICAL STRUCTURES THAT MAY BE INCLUDED IN A STREAM RESTORATION PROJECT ARE PROVIDED ON SHEET 2.

EXISTING TOPOGRAPHY SHOWN ON THIS SHEET WAS RETRIEVED FROM THE OHIO STATEWIDE IMAGERY PROGRAM (OSIP).

Project Description

The S+W Entrikin Preserve Stream Restoration project consists of the restoration of approximately 2,200 LF of stream channel located near the intersection of Old State Route 558 and OH-558. The existing stream reach begins immediately downstream of the northwest corner of the property and flows southeast to an existing bridge under OH-558. The existing channel on-site has been experiencing erosion of the bed and banks and is actively downcutting and widening.

In order to improve the existing stream condition, the proposed alignment was developed based on Natural Channel Design (NCD) principles. As the name implies, the goal of NCD is to restore a degraded stream by mimicking, as much as possible, the characteristics of a stable, "natural" system. Through the use of fluvial geomorphic principles, NCD seeks to achieve long-term stability given current as well as future flow rates. The restoration proposes to construct a stable cross section, create a stable planform geometry, and to provide a stable bed material to prevent future erosion.

Channel Sizing

In order to determine the appropriate channel dimensions, the existing drainage area for the site was determined by utilizing USGS StreamStats software. The resulting drainage area for Stone Mill Run was determined to be 11.5 square miles. The drainage area for the stream was then used in conjunction with the USGS Ohio Regional Curve (Sherwood & Huitger) to determine the bankfull width and depth for the proposed stream cross section. The formulas (based on the USGS Ohio Regional Curve) for bankfull width and depth are as follows:

$$W_{BKF} = 18.0 DA^{0.356} \quad \& \quad D_{BKF} = 1.52 DA^{0.265}$$

Where:

- W_{BKF} = Bankfull Width (ft)
- D_{BKF} = Bankfull Depth (ft)
- DA = Drainage Area (sq. mi.) = 11.5 sq. mi.

Therefore: $W_{BKF} = 43 \text{ ft}$ and $D_{BKF} = 2.9 \text{ ft}$

Planform Geometry

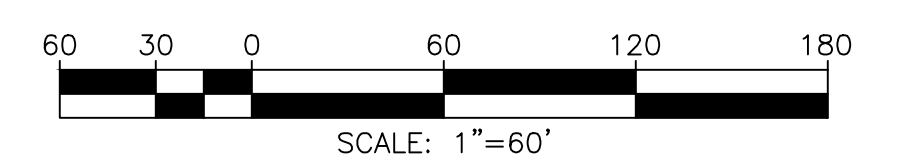
In order to reduce the amount of grading as well as tree disturbance on site, the proposed alignment was located within the existing channel as much as possible as demonstrated on this sheet. Reference reach data collected for C-streams show Radius of Curvature to Bankfull Width (R_c/W_{BKF}) ratios ranging from 1.3 to 3.7 with an average value of 2.4. Typically, and as is the case with the Stone Mill Run stream, R_c/W_{BKF} ratios of less than 2.0 limit structure placement and therefore, the minimum ratio used for this reach is 2.0.

Conclusion

In conclusion, the existing stream channel on the S+W Entrikin Preserve site is currently in a degraded state and is actively eroding. NCD theories, techniques, and practices were employed and modified as necessary to develop the proposed alignment and to ensure long term stability in these hydrologic conditions. The design protocol employed at the site will provide an environmentally sound, aesthetically pleasing, and structurally stable stream restoration project.

Reference

Sherwood, J.M., and Huitger, C.A., 2005, Bankfull characteristics of Ohio streams and their relation to peak streamflows: U.S. Geological Survey Scientific Investigations Report 2005-5153, 38 p.



LEGEND

	PROJECT AREA
	EXISTING CONTOURS (1')
	EXISTING PARCEL
	EXISTING THALWEG
	EXISTING WETLANDS
	PROPOSED CENTERLINE
	PROPOSED BANKFULL
	PROPOSED BENCH
	STREAM BUFFER AREA

PERMITTEE RESPONSIBLE MITIGATION AREAS. NO CREDITS TO BE GENERATED FOR IN-LIEU PROJECTS.

S + W Entrikin Preserve
Stream Restoration - Preliminary Plan
Columbiana County, Ohio
Proposed Channel Alignment

REVISIONS

No.	Date	Description	Rev. By	App. By

DATE: MAY 2019 SCALE: 1" = 60'

Horizontal Datum: NAD 83		
Vertical Datum: NAVD 88		
Boundary and Topo Source: Davey Resource Group & OSIP		
Design	Draft	Approved
APE	APE	FRG
Sheet #		
1 of 2		
Computer File Name:		

Wetland
Studies and Solutions, Inc.
a Davey Resource Group company

5300 Wellington Branch Drive • Suite 100
Gainesville, Virginia 20155
Phone: 703-679-5600 • Fax: 703-679-5601
www.wetlandstudies.com

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