



Public Notice

U.S. Army Corps
of Engineers

In Reply to Application Number
NAB-2014-01700-P25 (Evergreen Hop Bottom Creek Stream and Wetland
Mitigation Umbrella Bank)

Baltimore District
PN-15-08

Comment Period:

February 2, 2015 to March 4, 2015

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC CONCERNING THE PROPOSED DEVELOPMENT OF A PRIVATE COMMERCIAL STATEWIDE UMBRELLA MITIGATION BANKING INSTRUMENT, CONSISTING OF THE ENCLOSED MITIGATION BANK PROSPECTUS FOR THE PROPOSED EVERGREEN HOP BOTTOM CREEK STREAM AND WETLAND MITIGATION UMBRELLA BANK, AND THE POTENTIAL OF THE PROPOSED MITIGATION BANK TO PROVIDE APPROPRIATE COMPENSATORY MITIGATION FOR ACTIVITIES AUTHORIZED BY DEPARTMENT OF THE ARMY PERMITS.

At this time, no decision has been made as to whether or not a permit will be issued, or whether the proposed Umbrella Mitigation Banking Instrument, which includes the first mitigation bank site, known as the "Evergreen Hop Bottom Creek Mitigation Bank" (Hop Bottom Creek Mitigation Bank), will be approved. We are requesting comments to determine if approval should be granted for this proposed commercial umbrella mitigation banking instrument and associated mitigation bank site for the purpose of providing compensatory mitigation for unavoidable aquatic resource impacts, including wetlands and streams, authorized by Department of the Army permits.

At this time, a complete application for work in waters of the United States to construct the Hop Bottom Creek Mitigation Bank site has not been received. A preliminary review of the proposal indicates that there may be waters of the United States, including wetlands within the project area. These areas may be regulated pursuant to Section 404 of the Clean Water Act, and the work described below may require Department of the Army authorization. A preliminary review indicates that the proposed work may qualify for U.S. Army Corps of Engineers authorization under the Pennsylvania State Programmatic General Permit-4 (PASPGP-4) or by Nationwide Permit (NWP) #27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities). Both the PASPGP-4 and NWP #27 have undergone a full public interest review as required by Corps regulations (33 CFR 320.4(a)), and NEPA documentation has been prepared that addresses environmental considerations.

A copy of the proposed Prospectus is available at:

<http://www.nab.usace.army.mil/Missions/Regulatory/PublicNotices.aspx>

as an attachment to the electronic copy of this public notice.. The Prospectus provides a summary of the information regarding the proposed umbrella mitigation banking instrument and the Hop Bottom Creek Mitigation Bank site in accordance with the Department of Defense/Environmental Protection Agency Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230).

Oversight of this mitigation bank will be undertaken by the Pennsylvania Interagency Review Team (IRT), which is comprised of Federal and State regulatory and resource agencies. The Baltimore District, U.S. Army Corps of Engineers serves as chair of the IRT, and the Pennsylvania Department of Environmental Protection serves as co-chair the IRT.

APPLICANT: Mr. James Ingram
Evergreen Environmental, LLC
425 Darby Paoli Pike
Wayne, Pennsylvania 19087

WATERWAY AND LOCATION OF THE PROPOSED WORK: The proposed mitigation bank is located in Brooklyn Township, Susquehanna County, Pennsylvania (41.755722° N, -75.813667° W). Phase 1 of the proposed mitigation bank will involve aquatic resource restoration, re-establishment, and enhancement activities in unnamed tributaries to Hop Bottom Creek, Hop Bottom Creek, and adjacent wetlands, within an approximate 29 acre bank site.

BANK DESCRIPTION: The proposed Hop Bottom Creek Mitigation Bank would provide compensatory mitigation for unavoidable wetland and stream channel impacts for projects authorized by the Corps. The proposed mitigation bank would involve the re-establishment, rehabilitation and enhancement of existing resources within an approximate 29 acre bank site. The mitigation bank involves approximately 7.1 acres of riparian buffer enhancement, which consists of enhancement along both sides of approximately 1,150 feet of perennial stream channel; restoration and re-establishment of approximately 0.8 acre of wetlands; restoration and rehabilitation of approximately 8.8 acres of wetlands; enhancement of approximately 9.1 acres of wetlands; and enhancement of approximately 1.6 acres of wetland buffer. Additionally, the mitigation bank proposes the overall protection and preservation of the approximate 29 acre bank site. All areas comprising the proposed Hop Bottom Creek Mitigation Bank would receive long term protection through a legal conservation instrument. The proposed geographic service area for the Hop Bottom Creek Mitigation Bank is the Upper Susquehanna River Subbasin, corresponding to the Pennsylvania State Water Plan, Watershed Subbasin 4, and to USGS Hydrologic Unit Code (HUC) 02050106, including portions of HUC's 02050101, 02050103, 02050104, and 02050105 located within Pennsylvania.

WORK REQUIRING DEPARTMENT OF THE ARMY AUTHORIZATION: A preliminary jurisdictional determination has been performed for the proposed mitigation bank site. The mitigation bank construction may permanently and/or temporarily impact potential jurisdictional waters and wetlands through the discharge of dredged and/or fill material, including grading activities. A site visit conducted by representatives of the U.S. Army Corps of Engineers on July 23, 2014, and a site visit conducted by the IRT on July 24, 2014, indicates that the proposed work may impact jurisdictional waters of the United States, including wetlands, and may qualify for Corps authorization under the PASPGP-4 or NWP #27. The proposed work must be approved by the U.S. Army Corps of Engineers prior to regulated construction activities commencing.

The purpose of this proposed mitigation bank is to provide compensatory mitigation for future unavoidable impacts to aquatic resources that result from activities permitted by the Corps under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The mitigation bank would be used to comply with special conditions for compensatory mitigation of permitted projects by providing in-kind compensation for authorized aquatic resource impacts. The mitigation bank may only be used for future projects after all appropriate and practicable steps to avoid and minimize adverse impacts to aquatic resources, including wetlands and streams, have been

demonstrated. Remaining unavoidable aquatic resource impacts must be compensated to the extent appropriate and practicable. The utilization of approved and established mitigation banks with available credits is given preference to other forms of compensatory mitigation in the hierarchy of potential mitigation options as contained in the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources.

The final mitigation banking instrument does not provide ultimate Department of the Army authorization for specific future projects impacting waters of the United States; exclude such future projects from any applicable statutory or regulatory requirements; or preauthorize the use of credits from the bank for any particular project. The Corps provides no guarantee that any particular individual or general permit will be granted authorization to use this Mitigation Bank to compensate for unavoidable aquatic resource impacts associated with a proposed permit, even though compensatory mitigation may be available within the defined service area.

The decision whether to approve this mitigation bank and issue a permit for the impacts to waters of the United States will be based on an evaluation of the probable impacts including cumulative impacts of the proposed bank 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 proposal 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, cultural values, 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, and, in general, the needs and welfare of the people.

A preliminary review of this application indicates that the proposed work will not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this proposal continues, additional information may become available which could modify this preliminary determination. Review of the latest published version of the National Register of Historic Places indicates that no registered properties listed as eligible for inclusion therein are located at the site of the proposed work. Currently unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the requested permit for the mitigation bank construction. As the evaluation of this proposal continues, additional information may become available which could modify this preliminary determination.

The applicant must obtain any State or local government permits which may be required.

If you have any questions concerning this matter, or require a hardcopy of the Prospectus, please contact Mrs. Tarrie Ostrofsky, Baltimore District, U.S. Army Corps of Engineers at (570) 835-4263 or Tarrie.L.Ostrofsky@usace.army.mil.

It is requested that you communicate the foregoing information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.

Written comments concerning the activity described above must be submitted directly to the District Engineer, U.S. Army Corps of Engineers, Tioga Regulatory Field Office, 710 Ives Run Lane, Tioga, Pennsylvania 16946, within the comment period as specified above to receive consideration.

A handwritten signature in blue ink that reads "Wade B. Chandler". The signature is written in a cursive style with a large initial "W".

Wade B. Chandler
Chief, Pennsylvania Section
Regulatory Branch

EVERGREEN HOP BOTTOM CREEK MITIGATION BANK PROSPECTUS



Submitted to:

**Interagency Review Team
c/o U. S. Army Corps of Engineers
Baltimore District
State College Field Office
1631 South Atherton St
State College, PA 16801**

Submitted by:



**Evergreen Environmental, LLC
425 Darby Paoli Road
Wayne, PA 19087**

January 2015

**Evergreen Hop Bottom Creek Mitigation Bank
Prospectus
Table of Contents**

	<u>Page</u>
I. INTRODUCTION AND BANK SITE DETAILS	1
A. Project Name	1
B. Project Purpose	1
C. Adjacent Property Owners	2
D. Supporting Agency Coordination	2
E. Definitions	2
II. OBJECTIVES	6
A. Proposed Resources	6
B. Proposed Resource Amounts and Methods	6
C. Proposed Resource Functions	7
III. ESTABLISHMENT AND OPERATION	8
A. Location	8
B. Bank Type	8
C. Scope of Proposed Development	9
D. Development Schedule	10
E. Credit Generation	10
F. Accounting and Reporting	13
G. Proposed Credit Availability Schedule	14
H. Maintenance, Monitoring, and Contingency Plans	14
I. Financial Assurance	15
IV. NEED AND FEASIBILITY	15
A. Watershed Description	15
B. Site Selection Process	16
C. Potential Threats	16
D. Mitigation Technique Feasibility	17
V. ECOLOGICAL SUITABILITY	17
A. Baseline Site Conditions and Ecological Suitability	17
B. Ecological Monitoring	18
C. Reference Information	18
D. Existing Waters of the United States	19
E. Stream Order and Type	19
VI. ASSURANCE OF SUFFICIENT WATER RIGHTS	19
A. Relationship to Aquatic Resources	19
B. Structural Management Requirements	20
C. Water Sources and Losses	20
D. Proposed Hydroperiod	20
E. Contributing Drainage Area	20

VII. GEOGRAPHIC SERVICE AREA	20
A. Service Area	20
B. Service Area Rationale	21
VIII. OWNERSHIP AND LONG-TERM MANAGEMENT	21
A. Contact Information	21
B. Encumbrances	21
C. Long-Term Ownership	21
D. Long-Term Management	22
E. Site Protection Instrument	23
F. Site Protection Instrument Holder	23
IX. SPONSOR QUALIFICATIONS	23

FIGURES

Figure 1	USGS Map
Figure 2	Vicinity Map
Figure 3	Concept Plan
Figure 4	Service Area Map
Figure 4a	Service Area Map: Evergreen Statewide Umbrella Mitigation Banking Instrument
Figure 5	Stream Designation Map
Figure 6	NWI Map
Figure 7	FEMA Map
Figure 8	Soils Map
Figure 9	Wetland Delineation Map
Figure 10	Drainage Area Map

EXHIBITS

Exhibit A	Adjacent Property Owner Information
Exhibit B	PNDI Review Information
Exhibit C	PHMC Correspondence
Exhibit D	Projected Wetland Compensation Value Estimates
Exhibit E	Projected Stream Compensation Value Estimates
Exhibit F	Site Photographs
Exhibit G	Monitoring Well Hydrographs
Exhibit H	Preliminary Jurisdictional Determination
Exhibit I	Sample Legal Instruments

I. INTRODUCTION AND BANK SITE DETAILS

A. Project Name

Evergreen Environmental, LLC, (Evergreen) is the Bank Sponsor (Sponsor). As the Sponsor, Evergreen will construct, operate and maintain the Evergreen Hop Bottom Creek Mitigation Bank (Bank or Bank Site) in Brooklyn Township, Susquehanna County, Pennsylvania (Figure 1). This Bank will form part of the Sponsor's proposed Evergreen Pennsylvania Statewide Umbrella Mitigation Banking Instrument (EPSUMBI). Additional mitigation sites will be incorporated through addenda to the EPSUMBI and presented to the Pennsylvania Statewide Interagency Review Team (IRT).

B. Project Purpose

The purpose of the Bank is to provide offsite compensation for the unavoidable loss of streams, wetlands, and their functions as a result of unavoidable aquatic resource impacts resulting from development projects authorized under Section 401 and 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, Pennsylvania Department of Environmental Protection (PADEP) Chapters 102, 105, and 106 regulatory programs, and Pennsylvania State Programmatic General Permit (PASPGP) 4 provided such activities have met all applicable requirements and are authorized by the appropriate agencies. The Bank is proposed with the intention of meeting the requirements of the Army Corps of Engineers (USACE) 33 CFR 332, the Environmental Protection Agency's 40 CFR 230 Joint Federal Mitigation Rule Published in April 2008, and Title 25 PA Code 105 rules and regulations.

The Evergreen Hop Bottom Creek Bank will provide compensation for unavoidable loss of wetland and stream functions through the following activities:

- Restoration including re-establishment and rehabilitation of actively farmed palustrine emergent (PEM) wetlands to palustrine forested (PFO) and scrub-shrub (PSS) wetlands.
- Enhancement of existing PEM wetlands to PFO/PSS wetlands through heavy planting of native vegetation. This activity will also include enhancement of wetland buffer through heavy planting of native vegetation.
- Stream mitigation activities will include enhancing existing herbaceous riparian buffers to PFO/PSS riparian areas and enhancing approximately 2,300 linear feet of the streambank (1,150 feet on each side of the creek) through heavy planting of native vegetation.

Reed canary grass (*Phalaris arundinacea*) was identified within the Bank Site and on the adjacent upstream property as evidenced during the July 24, 2014 IRT site meeting. Reed canary grass is a native species that is widespread within upstream sources and throughout the watershed. As such, the Sponsor expects ongoing reintroduction of seed source onto the Bank Site. The Sponsor intends to perform routine control of this species and other invasive species.

However, the Sponsor proposes to exclude the percent coverage of reed canary grass in the success criteria for the site since it is not practicable to eradicate this native species given the upstream seed source. Invasive species control on future mitigation banks developed under the Evergreen Pennsylvania Statewide Umbrella Mitigation Banking Instrument will be assessed on each individual site.

C. Adjacent Property Owners

A list of adjacent property owners and their contact information is provided in Exhibit A.

D. Supporting Agency Coordination

A review of the Pennsylvania Natural Diversity Inventory (PNDI) Project Planning Review was performed on July 22, 2014 in order to screen the Bank Site for potential impacts to species of special concern. The PNDI Review verified that records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the Bank Site. The PNDI receipt is included in Exhibit B.

A request to the Pennsylvania Historical and Museum Commission (PHMC) was submitted on November 15, 2013 in order to screen the Bank Site for potential archaeological or architectural concerns. PHMC responded on December 2, 2013 stating a high probability of significant archaeological sites within the project area and that a Phase I archaeological survey is required prior to further action on the Bank Site. PHMC also stated that no historic buildings, structures, districts, or objects will be affected by this project. The Sponsor and its contractors have verbally consulted with PHMC on May 13, 2014 and determined that a geomorphological reconnaissance and associated report would suffice in order to obtain a Determination of No Effect. The geomorphological evaluation was performed on July 26, 2014 and a revised Cultural Resource Notice was submitted to PHMC on July 31, 2014. PHMC responded with a Determination of No Effect on historic properties on August 19, 2014. The PHMC correspondence is included in Exhibit C.

E. Definitions

1. **ADAPTIVE MANAGEMENT** – The development of a management strategy that anticipates likely challenges associated with compensatory mitigation projects and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those projects. It requires consideration of risk, uncertainty, and dynamic nature of compensatory mitigation projects and guides modification of those projects to optimize performance. It includes the selection of appropriate measures that will ensure that the aquatic resource functions are provided and involves analysis of monitoring results to identify potential problems of a compensatory mitigation project and the identification and implementation of measures to rectify those problems.
2. **BANK SPONSOR OR SPONSOR** – Any public or private entity responsible for establishing, and in most circumstances, operating a Mitigation Bank. For this Bank, the Bank Sponsor is

Evergreen Environmental, LLC.

3. **BANK DEVELOPMENT PLAN (BDP)** – The overall plan governing establishment, Restoration, Creation, Enhancement, and/or Preservation of aquatic resources and associated upland buffers on the Bank Site.

4. **BANKFULL EVENT** – The storm event that corresponds with the stream stage at its incipient point of flooding. The bankfull discharge associated with the Bankfull Event is the flow that transports the majority of a stream’s sediment load over time and thereby forms and maintains the channel dimension, pattern, and profile.

5. **BUFFER** – A buffer is an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

6. **BUFFER ENHANCEMENT** – Improvements to buffers areas including supplemental plantings.

7. **BUFFER ESTABLISHMENT** – Establishment of buffer areas where none were previously present. Buffer establishment includes planting native species and associated measures such as fencing, posting, and livestock exclusion.

8. **BUFFER RE-ESTABLISHMENT** – Removal of invasive species in a buffer and then replanting with native species.

9. **BUFFER REHABILITATION** – Establishment of buffer areas where none were previously present. Buffer establishment includes planting native species and associated measures such as fencing, posting, and livestock exclusion.

10. **COMPENSATORY MITIGATION** – The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

11. **COMPENSATORY MITIGATION PROJECT** – Compensatory mitigation implemented by the permittee as a requirement of a DA permit (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu fee program.

12. **CONDITION** – The relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.

13. **CONSERVATION or PRESERVATION** – The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Conservation or preservation does not result in gain of aquatic resources area or functions.

14. **CREDIT** – A unit of measure (e.g., a functional or areal measure or other suitable metric) representing the accrual or attainment of aquatic resource functions at a compensatory mitigation site. The measure of aquatic functions is based on the resources impacted by the authorized activity.

15. **DAYS** – Refers to calendar days.

16. **DEBIT** – A unit of measure (e.g., a functional or areal measure or other suitable metric) representing the loss of aquatic functions at an impact or project site. The measure of aquatic functions is reduction of credits at the Mitigation Bank corresponding to the loss of aquatic

functions is based on the resources impacted by the authorized activity.

17. **ENHANCEMENT** – The manipulation of physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain of aquatic resource area.

18. **ESCROW AGREEMENT** – An agreement by which two parties assent to the deposit of a sum of money as assurance or guarantee for certain actions with conditional delivery of the monies under stipulated circumstances.

19. **ESTABLISHMENT (Creation)** – The manipulation of physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in the gain of aquatic resource area and functions.

20. **FINANCIAL ASSURANCES** – A mechanism or instrument used to guarantee some aspect of the Bank. Financial Assurances may include an escrow account, performance bond, insurance, letter of credit, or other mechanism acceptable to the IRT. Financial Assurances may be required for varying aspects associated with a Mitigation Bank including: a) A mechanism to guarantee the initial release of Mitigation Bank Credits; b) The Maintenance and Monitoring Fund; c) The Catastrophic Event Fund; and d) The Long-Term Management Fund.

21. **FUNCTIONS** – The physical, chemical, and biological processes that occur in ecosystems.

22. **INITIAL MONITORING PERIOD** – The period during which the Sponsor actively maintains the Mitigation Site prior to transfer to a Long-Term Steward. The period must be five years at a minimum.

23. **IN-KIND** – A resource of similar structural and functional type to the impacted resource.

24. **INSTRUMENT** – Refers to the mitigation banking instrument or in-lieu fee program instrument.

25. **INTERAGENCY REVIEW TEAM (IRT)** – An interagency group of federal, state, tribal, and/or local regulatory and resource agency representatives that reviews documentation for, and advises the district engineer on, the establishment and management of a mitigation bank or an in lieu fee program.

26. **LEDGER** – An accounting of Credits and Debits.

27. **LONG-TERM STEWARD** – The landowner, easement holder of the Bank lands, or other party charged with long-term maintenance and management responsibility. A Long-Term Steward may be designated once Success Criteria monitoring has been completed. In some cases, the Bank Sponsor may also be the Long-Term Steward.

28. **MITIGATION** – Sequentially avoiding impacts, minimizing impacts, and compensating for impacts to aquatic resources that could not be avoided or minimized.

29. **MITIGATION BANK (“BANK”)** – A site or suite of sites where aquatic resources (e.g., wetlands, stream, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for authorized impacts. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.

30. **MITIGATION BANKING INSTRUMENT (MBI)** – the legal document governing the establishment, operation, and use of a mitigation bank.

31. MITIGATION SITE PLAN or MITIGATION PLAN (referring to an individual site) – A detailed portion of the Bank Development Plan that identifies specifically how aquatic resources and associated upland buffers will be restored, created, enhanced, preserved, managed and maintained on the Mitigation Bank.
32. MONITORING YEAR 1 (ONE) – The end of the first complete growing season following completion of construction activities, including planting.
33. OFF-SITE - An area that is neither located on the same parcel of land as the impact site, nor on a parcel of land contiguous to the parcel containing the impact site.
34. ON-SITE – An area located on the same parcel of land as the impact site, or on a parcel of land contiguous to the impact site.
35. ORDINARY HIGH WATER MARK – the line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
36. PERFORMANCE STANDARDS – Observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.
37. PRESERVATION – See “Conservation or Preservation.”
38. RESTORATION / RE-ESTABLISHMENT – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in gain in aquatic resource area and functions.
39. REFERENCE AQUATIC RESOURCES – A set of aquatic resources that represent the full range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.
40. RESTORATION / REHABILITATION – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.
41. RELEASE OF CREDITS – A determination by the district engineer, in consultation with the IRT, that credits associated with an approved mitigation plan are available for sale or transfer, or in the case of an in-lieu fee program, for fulfillment of advance credit sales. A proportion of projected credits for a specific mitigation bank or in-lieu fee project may be released upon approval of the mitigation plan with additional credits released as milestones specified in the credit release schedule achieved.
42. RESTORATION – The manipulation of physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided in to two categories: re-establishment and rehabilitation.
43. RIPARIAN AREAS – Lands adjacent to streams, rivers, lakes, and estuarine shorelines. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality.

44. SERVICE AREA – The geographic area within which impacts can be mitigated at a specific mitigation bank or an in-lieu fee program, as designated in its instrument.
45. SERVICES – The benefits that human populations receive from functions that occur in ecosystems.
46. SPONSOR – Any public or private entity responsible for establishing, and in most circumstances, operating a mitigation bank or in-lieu fee program.
47. STANDARD PERMIT – A standard, individual permit issued under the authority of section 404 of the Clean Water Act and/or sections 9 or 10 of the Rivers and Harbors Act of 1899.
48. STREAM REACH – The length of a stream identified as representing a uniform set of physical, chemical, and biological conditions. It is the principal sampling unit for collecting physical, chemical, and biological data. In practice, a reach is often defined by a repeating sequence of channel units (riffle-pool-run sequence), by a sampling convention of channel units, or by the length of uniform mitigation activities.
49. TEMPORAL LOSS – The time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. Higher compensation ratios may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, a determination may be made that the compensation for temporal loss is not necessary, unless the resource has a long development time.
50. UMBRELLA MITIGATION BANK – A group of mitigation Bank sites located in a distinct geographical area that share a single Bank Sponsor and are governed by a single mitigation banking instrument. Inclusion of additional Bank sites under an Umbrella Mitigation Banking Instrument will require modification of the UMBI. Mitigation Plans for all Bank sites operating under an Umbrella Mitigation Banking Instrument are considered part of the UMBI. Separate credit ledgers and financial assurances shall be maintained for each Bank site. The Hop Bottom Creek Mitigation Bank is proposed as a Bank site within a single, statewide Umbrella Mitigation Bank Instrument which is being developed by the Bank Sponsor and called Pennsylvania Statewide Umbrella Mitigation Banking Instrument.
51. WATERSHED – A land area that drains to a common waterway, such as a stream, lake, estuary, wetland, or ultimately the ocean.

II. OBJECTIVES

A. Proposed Resources

The Bank Sponsor proposes to establish palustrine wetland and stream mitigation.

B. Proposed Resource Amounts and Methods

The Bank Sponsor proposes to establish the following resource types through re-establishment, rehabilitation and enhancement of the existing resources. Additionally, the Bank Sponsor proposes the overall protection and preservation of the approximate 29 acre Bank Site. The location and acreage of each mitigation type is approximate and subject to change during final project design. No in-stream work is proposed at this time.

Forested/Scrub-Shrub Wetland Mitigation:

Total Area: approximately 20 acres composed of:

Restoration / Re-establishment: approximately 0.8 acre; 100% PFO

Restoration / Rehabilitation: approximately 8.8 acres; 86% PFO, 14% PSS

Enhancement: approximately 9.1 acres of wetland; 85% PFO, 15% PSS
approximately 1.6 acres of wetland buffer; 100% forested

Stream Mitigation:

Total Area: approximately 7 acres composed of:

Enhancement: approximately 7.1 acres of riparian buffer, 93% PFO, 7% PSS

Enhancement: approximately 2,300 linear feet of streambank (1,150 feet on each side of the creek)

The goal of the mitigation bank is to mimic the upstream, adjacent reference area with a mosaic of PFO, PSS and forested upland components. The percentages of resource types listed above are approximations. Refined percentages and acreages of each resource type proposed as compensatory mitigation will be provided upon final site survey and detailed site design.

C. Proposed Resource Functions

The Bank Sponsor proposes to restore, enhance, and preserve existing wetland, riparian, and stream functions within the Bank Site. These site improvements are proposed to mitigate for functions and services lost from adverse, unavoidable impacts to wetlands and streams due to authorized development projects within the Upper Susquehanna River Subbasin (State Water Plan Watershed Subbasin 4). The creation of these mitigative measures in advance of permitted impacts will provide limited temporal loss of function associated with the impacts.

Wetland restoration activities will include re-establishment and rehabilitation of actively farmed uplands and palustrine emergent (PEM) wetlands to palustrine forested (PFO) and scrub-shrub (PSS) wetlands through installation of ditch plugs within existing drainage ditches and heavy planting of native vegetation. Wetland enhancement activities will include enhancing existing PEM wetlands to PFO/PSS wetlands through heavy planting of native vegetation. This activity will also include enhancement of wetland buffer through heavy planting of native vegetation.

Stream mitigation activities will include enhancing existing herbaceous riparian buffers to PFO/PSS riparian areas and enhancing approximately 2,300 linear feet of the streambank (1,150 feet on each side of the creek) through heavy planting of native vegetation.

Targeted aquatic functions to be restored include improvements to aquatic habitat, wildlife habitat, water quality, flood conveyance and storage, and erosion control, vegetation controls, nutrient/sediment control, and long-term land protection.

The Sponsor has estimated that approximately 2,800 square feet (250 cubic yards) of material will be excavated from on-site areas in order to create the proposed ditch plugs, as shown on the Concept Plan (Figure 3). Material for the fill will likely be taken from on-site, upland areas. However, the specific amount of material needed will be revised once formal survey and a detailed site design have been prepared. Refined temporary and permanent impact calculations will be provided as part of the Mitigation Banking Instrument and the Mitigation Site Plan. Additionally, permit applications will be submitted to the appropriate local, and/or federal agencies prior to construction.

III. ESTABLISHMENT AND OPERATION

A. Location

The Bank Site is located at the northwest intersection of State Routes 167 and 2024 in Brooklyn Township, Susquehanna County, Pennsylvania approximately 0.5 miles north of the center of Brooklyn. The Bank Site is located in the Montrose East quadrangle. A location map providing latitude and longitude is included as Figure 1. A vicinity map showing the Bank Site location is included as Figure 2.

The Bank Site Address is:

Northwest intersection of State Routes 167 and 2024
Kingsley, PA 18826

The Bank Site latitude and longitude coordinates are:

N 41° 45' 20.6"
W -75° 48' 49.2"

Driving directions from the intersection of State Route 167 and State Route 2024, Kingsley, Pennsylvania are as follows:

- Interstate 81 North to Exit 175;
- Merge onto PA-315 North/Highway 315 North toward Dupont/Pittstown;
- Follow signs for Interstate 476 North/Scranton;
- Exit onto US-11 North/US-6 West/Northern Boulevard toward Binghamton/Towanda/Clarks Summit/PA-407;
- Turn left onto Main Street;
- Take second right onto PA-167 North/State Route 167 North/Greenwood Street;
- Follow PA-167 for approximately 4.5 miles until cross over PA-2024;
- Bank Site is on the left.

B. Bank Type

The Bank will be a commercial use mitigation bank.

C. Scope of Proposed Development

The Sponsor will establish and maintain approximately 29 acres of re-established, rehabilitated, enhanced and preserved wetlands, wetland buffer, streambank and riparian buffers. The scope of work proposed for development will include a combination of wetland re-establishment, rehabilitation and enhancement, wetland buffer enhancement, and streambank and riparian buffer enhancement. The construction of the Bank is proposed as a single phase effort. A conceptual mitigation plan that shows the overall conservation area footprint is attached as Figure 3.

Wetland Mitigation

Wetland restoration / re-establishment - is proposed for approximately 0.8 acres of existing farmed herbaceous uplands. Currently, these upland areas are actively farmed and historically ditched. They lack both tree and shrub layers. Based on historic aerials, topography, and proximity to Hop Bottom Creek and the existing on-site ditches, these areas once appeared to be wetlands. The Sponsor proposes to return the natural and historic wetland functions to these areas by installing ditch plugs. The areas will also be planted with woody, native vegetation.

Wetland restoration / rehabilitation - is proposed for approximately 8.8 acres of existing farmed PEM wetlands. Currently these wetlands are actively farmed and lack both tree and shrub layers. The Sponsor proposes to repair the natural and historic wetland functions to these areas by installing woody vegetation. The plantings are proposed to improve water quality functions by filtering runoff, absorbing nutrients, and providing habitat for terrestrial wildlife species.

Wetland enhancement - is proposed for approximately 9.1 acres of existing farmed PEM wetlands adjacent to Hop Bottom Creek. Currently these wetlands are actively farmed and lack both tree and shrub layers. The Sponsor proposes to improve the aquatic resource functions to these areas by installing woody vegetation. The plantings are proposed to improve water quality functions by filtering runoff, absorbing nutrients, providing habitat for terrestrial wildlife species, and providing cover for aquatic species.

Wetland Buffer (Zone of Influence) enhancement - is proposed for 1.6 acres of existing herbaceous uplands. Currently, these upland areas are actively farmed and lack both tree and shrub layers. The Sponsor proposes to improve the resource functions to these areas by installing woody vegetation. The plantings are proposed to improve water quality functions by filtering runoff, absorbing nutrients, providing habitat for terrestrial wildlife species, and providing cover for terrestrial wildlife species.

Stream Mitigation

Riparian buffer enhancement - is proposed for approximately 7.1 acres of herbaceous wetland/riparian area. The riparian buffer enhancement is located within 100 feet of both banks of Hop Bottom Creek. The Sponsor proposes to install native tree and shrub species. Planting of the riparian buffer will reduce thermal loading, provide additional nutrient uptake, and enhance wildlife habitat.

Streambank enhancement - is proposed along both banks of Hop Bottom Creek starting at the old farm crossing and continuing downstream for 1,150 feet. The total amount of both streambanks being enhanced is 2,300 linear feet. The Sponsor proposes to install heavy live stakes plantings along both banks. Planting of the stream bank will improve the stability of Hop Bottom Creek, reduce thermal loading, provide additional nutrient uptake, and enhance wildlife habitat.

Based upon discussions during the July 24, 2014 IRT site visit, the Bank Sponsor also proposes to incorporate additional wildlife habitat improvements within the Bank Site. These additional habitat improvements may include, but are not limited to, bird and bat boxes, specific vegetative species preferred by Indiana bats (*Myotis sodalis*) and northern long eared bats (*Myotis septentrionalis*), and incorporation of organic material (woody debris) within existing oxbows.

D. Development Schedule

- February, 2015: Public Notice
- March, 2015: Public Comment Period
- March, 2015: Initial Evaluation Letter Received
- April, 2015: Draft UMBI Submitted
- July, 2014: Final UMBI Submitted
- September, 2015: UMBI Approved
- October, 2015: Begin Site Preparation and Planting
- November, 2015: Site Work Completed

E. Credit Generation

Compensation crediting, which estimates the potential wetland and stream credits, is derived from an acreage or linear based compensation system. A map showing the proposed Concept Plan is included as Figure 3.

Wetland credits have been determined based on the USACE guidelines. These guidelines are a ratio based approach to determining potential credits based on proposed uplift resulting from the project. The proposed wetland compensation values are provided in Exhibit D.

Stream credits have been determined based on the Unified Stream Methodology (USM) developed by the USACE Norfolk District and the Virginia Department of Environmental Quality. The USM addresses several methods to restore, enhance, stabilize, and preserve various stream functions. The amount of compensation credit is based on methods employed, the expected level of improvement to stream function and quality, and the amount of effort required to implement the activity.

Compensation crediting using USM is divided into four major categories. The Evergreen Hop Bottom Mitigation Bank Site will only include two of the four major categories: Stream Enhancement using bioremediation techniques and Riparian Buffer Improvement. The other two categories described below (Stream Restoration and Adjustment Factors) may be applied to future bank sites that are developed under the Evergreen Pennsylvania Statewide Umbrella Mitigation Banking Instrument.

Stream Restoration

Restoration is the process of converting an unstable, altered, or degraded stream corridor, including flood-prone areas, to a natural stable condition considering recent and future watershed conditions. This process includes restoring the appropriate geomorphic dimension (cross-section), pattern (sinuosity), and profile (channel slope). One compensation credit is provided for each linear foot of stream channel that is restored.

Stream Enhancement

Enhancement activities include physical alterations to the channel that do not constitute Restoration but that directly augment channel stability, water quality, and stream ecology in accordance with a reference condition, where appropriate. These activities may include in-stream and/or streambank activities, but in total fall short of restoring one or more of the geomorphic variables: dimension, pattern and profile. There are six activities included in this category:

- 1) In-stream Structures (0.3 credit per foot of effect)
- 2) Habitat Structures (0.1 credit per foot per bank)
- 3) Bankfull Bench Creation (0.15 credit per foot per bank)
- 4) Laying Back Banks (0.1 credit per foot per bank)
- 5) Bioremediation Techniques (0.1 credit per foot per bank)
- 6) Stream Bank Planting (0.09 credit per foot per bank)

Riparian Buffer Improvement

This compensation activity includes improvements to riparian buffers and includes their preservation in perpetuity. Compensation credit is determined by calculating the area within the first 100 foot buffer (inner buffer) in which a given riparian activity is proposed. The same process is used for the outer 100 foot buffer using the outer 100 feet credit values. Credit is

reduced since the outer 100 foot buffer area has less influence on stream stability, water quality, and in-stream habitat. There are three activities included in this category:

- 1) Stream Buffer Re-Establishment (inner buffer - 0.002 credit/sq. ft. per bank; outer buffer - 0.001 credit/sq. ft. per bank)

Credit for this activity is given when invasive plant species are eradicated and the buffer area is returned to native species, monitored to ensure invasive species eradication and the success of the native species.

- 2) Heavy Buffer Planting (inner buffer - 0.0019 credit/sq. ft.; outer buffer - 0.00095 credit/sq. ft. per bank)

Credit for this activity is given when the buffer area requires extensive planting (defined as 400 woody stems/acre or more).

- 3) Light Buffer Planting (inner buffer - 0.00145 credit/sq. ft.; outer buffer - 0.00075 credits/sq. ft. per bank)

Credit for this activity is given when the buffer area requires only light or supplemental planting. This activity would involve planting at less than ideal densities (less than 400 stems per acre), either because vegetation is already present, a seed source is present, or the project does not otherwise warrant it.

Adjustment Factors

Adjustment Factors (AF) are used to account for exceptional or site specific circumstances associated with the compensation site. These circumstances may provide ecological benefits that exceed the minimal requirements of the USM and include the following:

- 1) *Rare, Threatened, and Endangered Species or Communities*

Increased compensation credit is warranted for sites that show a significant improvement in restoring, enhancing, or preserving communities or individuals of rare or threatened and endangered (T&E) species. The range of credit provided by this activity is 0.1 – 0.3. The following factors are considered in determining the credit: 1) the indicator status of the species, 2) the amount the proposed activity will aid or protect that species, 3) whether an activity will protect habitat or known locations of a species, 4) the connection to other wildlife corridors, and 5) the number of species protected. This AF does not apply to projects where compensation of T&E species is required as a result of consultation with state and federal resource agencies.

2) *Livestock Exclusion*

Increased compensation credit is warranted for sites that exclude livestock because it has significant water quality and streambank stability benefits. Livestock exclusion is a process of placing fencing around a stream and adjacent riparian buffer so that livestock access is limited. Livestock must be excluded for a site to be accepted as compensation.

The range of credit provided by this activity is 0.1 – 0.3. The following factors are considered when determining the credit: 1) the number of livestock excluded, and 2) the water quality and streambank stability improvements.

Proposed activities at the site include Riparian Buffer Enhancement and Stream Enhancement. Riparian Buffer Enhancement will be completed by heavy planting within 7.1 acres of the inner buffer (100 feet on both sides of the stream), which would provide 588 compensation credits. Stream Enhancement will be completed by planting a total of 2,300 linear feet of stream bank (1,150 linear feet on each side of the streambank), which would provide 207 compensation credits. A total of 795 stream compensation credits are proposed at the Hop Bottom Mitigation Bank. The proposed stream compensation values are provided in Exhibit E.

If the Pennsylvania Function Based Aquatic Resource Compensation Protocol is implemented after the approval of this Bank, the Sponsor may, but is not obligated to, update its credit calculations on a forward-looking basis. Any credits or acreage having already been allocated or used for a permit will remain unaffected by any future changes.

F. Accounting and Reporting

Accounting Procedure: The Bank Sponsor shall submit a statement to the USACE and PADEP each time Credits are Debited or additional Credits are approved. If requested, the USACE and/or PADEP will distribute the statement to other members of the IRT. The Bank Sponsor or its agent shall update credit ledgers on RIBITS by the 10th of each January, April, July, and October for the previous quarter. In addition, the Bank Sponsor shall submit a semi-annual electronic Ledger to the USACE and PADEP for distribution to all members of the IRT, showing all transactions at the Bank for the previous six (6) months and a cumulative tabulation of all transactions to date. At a minimum, each Ledger must include the following information: Permittee, Permit number, Type of permit, Locality, Type of impacted system (Cowardin Classification), Amount of wetland and/or stream impacts, Amount of wetland and/or stream Debit from Mitigation Bank, USGS HUC Catalog Unit, and Date of transaction. The IRT will review the semi-annual report and acting through the Chair(s) adjust the credit composition to assure no net loss of wetlands acreage. Semi-annual Ledgers and transaction reports shall be submitted to the IRT as long as Credits remain in the Bank and/or the Bank remains operational.

G. Proposed Credit Availability Schedule

Mitigation credits resulting from the functional improvements at the Bank Site will be released based on the criteria detailed in site specific performance standards provided in the EPSUMBI and each Mitigation Site Plan Report.

H. Maintenance, Monitoring, and Contingency Plans

Maintenance Provisions: The Sponsor agrees to perform all work necessary to maintain the Bank consistent with each specific Mitigation Bank Design Plan. The need for maintenance will be assessed during monitoring visits and in the subsequent monitoring reports. Necessary maintenance will be performed as deemed necessary.

Monitoring Provisions: The Sponsor agrees to perform all necessary work to annually monitor the Bank to demonstrate compliance with the success criteria established in the EPSUMBI. A Monitoring and Maintenance Plan will be provided as part of the EPSUMBI and each Mitigation Site Plan Report. Monitoring may be terminated or the extent of monitoring may be reduced over part or the entire Bank Site at the discretion of the IRT.

Reed canary grass (*Phalaris arundinacea*) was identified within the Bank Site and on the adjacent upstream property. Reed canary grass is a native species that is widespread within upstream sources and throughout the watershed. As such, the Sponsor expects ongoing reintroduction of seed source onto the Bank Site. The Sponsor intends to perform routine control of this species and other invasive species. However, the Sponsor proposes to exclude percent coverage of reed canary grass in the success criteria for the site since it is not practicable to eradicate this native species given the upstream seed source. Invasive species control on future mitigation banks developed under the Evergreen Pennsylvania Statewide Umbrella Mitigation Banking Instrument will be assessed on each individual site.

Contingency/Adaptive Management Plans/Remedial Actions: The Bank Sponsor shall develop necessary contingency/adaptive management plans and implement appropriate remedial actions in coordination with the IRT to address any potential or immediate deficiencies in meeting the success criteria. In the event the Bank Sponsor fails to implement necessary remedial actions within one growing season (by November 1 of the following year) after written notification by the USACE and/or PADEP of necessary remedial action to address any failure in meeting the success criteria, the IRT will notify the Bank Sponsor and the appropriate authorizing agencies and direct appropriate remedial actions or take action including suspension/revocation of available mitigation credits.

I. Financial Assurance

The Bank Sponsor is prepared to utilize surety bonds or casualty insurance as potential financial assurance mechanisms in support of this project. The Sponsor will incorporate guidance from the Pennsylvania Statewide IRT to further define this process at the draft MBI stage.

The Sponsor agrees to provide the following financial assurances for the work described in this MBI. The Sponsor will secure sufficient funds and financial assurances, as described below, to cover contingency actions in the event that the Sponsor fails to comply with the terms of this MBI or to rectify any unforeseen events as determined by the USACE and PADEP. In addition, the Sponsor shall also be responsible for providing adequate funding to monitor and maintain the Bank until either all Bank credits have been sold and applied to a permitted project or for a total of 10 years after the date of completion of construction and initial planting, whichever comes last.

Performance Surety: Prior to the release of any credits by the USACE and PADEP, the Sponsor must obtain a surety bond or casualty insurance policy that is acceptable to the USACE and PADEP and names the PADEP as the obligee. The financial assurance for the construction of the mitigation project will have a penal sum or policy limit in an amount equal to 100 percent of the estimated cost of construction Upon submission to USACE and PADEP and their review and approval of an as-built and planted report demonstrating successful completion of grading and planting, the surety bond or casualty insurance providing the performance surety shall be retired.

Maintenance Surety: Prior to the release of any credits by the USACE and PADEP, the Sponsor must obtain a surety bond or casualty insurance policy that is acceptable to the USACE and PADEP and names the PADEP as the obligee. The financial assurance for the monitoring and maintenance costs of the Mitigation Bank will have a penal sum or policy limit in an amount equal to 100 percent of the estimated cost of monitoring and maintaining the site through the completion of the monitoring period. Upon submission to USACE and PADEP of each year's successful monitoring report, USACE and PADEP shall permit a proportionate decrease in the penal sum or casualty insurance policy limit.

IV. NEED AND FEASIBILITY

A. Watershed Description

The Upper Susquehanna River Subbasin (State Water Plan Watershed Subbasin 4) is the overall GSA watershed where the Bank Site is located (Figure 4). Hop Bottom Creek and unnamed tributaries within and near the Bank Site embody the typical characteristics and nature of the primary tributaries providing hydrologic support within Subbasin 4. Drainage from the Bank Site combines with higher order tributaries prior to discharging to Martins Creek and eventually to Tunkhannock Creek south of Brooklyn, Pennsylvania.

Tunkhannock Creek is an approximate 42 mile tributary of the Susquehanna River in the northeastern portion of the Upper Susquehanna River Subbasin within the limits of Pennsylvania. The Susquehanna River is a major tributary of the Chesapeake Bay providing the largest single watershed drainage area of any of the Bay's contributing river systems which includes portions of Pennsylvania, New York, and Maryland.

The Tunkhannock Creek Watershed drains 413 square miles of flat-topped mountains, rolling hills and steep-sided stream valleys within portions of Susquehanna, Lackawanna and Wyoming Counties. Tributaries within the watershed generally contain clean, unpolluted water that support approximately 27 species of fish. Wetlands within the watershed compose approximately 2.7% of total land surface.

In the Upper Susquehanna River Subbasin, current development efforts directly resulting from the Marcellus Shale Play have established a trend of construction activity and land use change that exceeds the previously documented rate of development. Primary infrastructure and secondary support construction contributes additional significant development activities resulting in unavoidable aquatic resource impacts within the watershed. The current trend of expedited development presents an immediate need for sustainable mitigation solutions to provide functional replacements for the unavoidable aquatic resource impacts taking place. The need to balance beneficial resource functions within the watershed is clearly present providing strong support for the establishment of ecological restoration and conservation projects.

B. Site Selection Process

The site selection process included determining the mitigation need within the watershed and the potential functional replacement of aquatic resources associated with Bank Site. Preliminary review of soils, wetland and hydrologic mapping, was conducted to screen potential sites. Property owner contact and field visits were conducted at sites which provided potential interest.

Field visits consisted of obtaining soil, vegetation and hydrologic information within the Bank Site and adjacent reference site. Ratio and functional uplift models were used to determined conceptual designs. Preliminary conversations with regulatory agencies were also performed in order to confirm appropriate information required for the process.

C. Potential Threats

The potential threats to the Bank Site which exist if the proposed mitigation project is not implemented include:

- continued direct and secondary impact to the stream channel, wetlands, and riparian areas by active farming practices;
- continued maintenance activities within the floodplain as livestock forage grass species

D. Mitigation Technique Feasibility

The proposed mitigation techniques and development approach for this Bank Site are based on natural self-sustaining processes present within the Bank Site and adjacent reference site. No in-water stream engineering is proposed as part of this project. The principle approach is to mimic adjacent habitats with installation of native vegetation and allow the site to revert to pre-agricultural conditions.

V. ECOLOGICAL SUITABILITY

A. Baseline Site Conditions and Ecological Suitability

The Bank Site consists of ditched PEM wetlands and herbaceous uplands. Approximately half of the Bank Site is actively mowed for hay production. The remaining half which is also mowed is devoid of woody vegetation. The wetlands, riparian areas, and stream have been degraded through anthropogenic alterations including historic and current agricultural activities (i.e. direct livestock access and grazing, mowing), installation of drainage ditches, and the placement of a stream crossing. Primary and secondary benefits associated with development of the Bank Site include enhancement of a currently degraded stream, improved water quality within mapped cold water fisheries and trout waters, enhanced wildlife habitat, nutrient and sediment control, and conservation of vulnerable water resources. Site photographs are provided in Exhibit F.

The Bank Site is situated within the Glaciated Low Plateau Section of the Appalachian Plateau Physiographic Province in northeastern Pennsylvania. The topography of the section is characterized by rounded hills and broad to narrow valleys all of which have been modified by glacial erosion and deposition. Glacial deposits composed of sand and gravel, are commonly found in the valley bottoms and along the valley margins. The Project area is underlain by Devonian sandstone and shale of the Catskill Formation, which is in turn overlain by glacial till that has been dissected and reworked by lateral migration of the stream throughout the Holocene.

The location of the Bank Site will provide compensatory mitigation options to counties within Pennsylvania which are receiving increased pressure from development projects. Conservation of the water resources onsite will protect them in perpetuity from potential development impacts and will ensure that these wetlands and riparian corridors onsite will continue to provide important ecological benefits including water quality, fish and wildlife habitat, erosion control, and flood conveyance and storage within the watershed.

The primary Bank Site stream (Hop Bottom Creek) is designated as a Cold Water Fishery (CWF) under Chapter 93 of the Pennsylvania Clean Streams Law. Hop Bottom Creek flows downstream from the southern portion of the Bank Site and drains to Martins Creek (CWF) and then to Tunkhannock Creek which is designated as a Trout Stocked Fishery (TSF). The

Susquehanna River, the overall receiving stream, is designated as a Warm Water Fishery (WWF). A map showing the location of the Bank Site stream resources and receiving waters is attached as Figure 5. The current Existing Use, Designated Use, and additional supporting classifications are identified on this Map.

B. Ecological Monitoring

Site investigations were conducted during November 2013, May 2014, and June 2014 to understand existing condition information for the purpose of developing an appropriate functional restoration plan for the Bank Site. The site investigations yielded a significant amount of existing condition project information including, but not limited to:

- Wetland and Waters of the United States boundaries;
- Soil borings;
- Vegetative communities;
- Faunal influences;
- Hydrologic data;
- Site constraints including access, encumbrances, potential staging areas, and native/invasive species discussion (See discussion of reed canary grass in Section III.H.).

C. Reference Information

The majority of the site is mapped PEM according to NWI mapping (Figure 6). The majority of the Bank Site's hydrology is associated with local and regional groundwater discharge. Five (5) groundwater observation wells have been installed on the Hop Bottom Creek Mitigation site to evaluate pre-construction hydrology. Two of the wells (MW1 and MW2) were installed in November 2013 during initial site reconnaissance. The remaining three wells (MW 3-5) were installed on May 5, 2014 to gather additional data in areas where hydrology may be affected by agricultural ditches. All monitoring wells were installed to a depth of 30 inches using 2-inch diameter PVC pipe, slotted well screen, filter sand, and bentonite sealant in accordance with Corps of Engineers guidance (ERDC TN-WRAP-05-2, "Technical Standard for Water-Table Monitoring of Potential Wetland Sites). Each well was equipped with a pressured transducer datalogger to record daily water levels. Hydrographs for each well are provided in Exhibit G. Locations of each well are provided on Figure 9.

Approximately 24 acres of the Bank Site is located within the floodplain of Hop Bottom Creek (Figure 7). The floodplain appears to fluctuate above the pool level of the stream and is marked by several oxbow scars indicating the stream has migrated laterally across the valley bottom.

The Natural Resources Conservation Service (NRCS) maps four different soil types within the site boundary (Figure 8). The soils identified are Lordstown and Oquaga (LsF), Holly (Hw), Wellsboro (WeC2), and Wyalusing (Wy). The majority of the site is mapped as Wyalusing, which is identified as a hydric soil in Susquehanna County. The Wyalusing soil type is also

formed in alluvial deposits on poorly drained floodplains with slopes of 0-5%.

D. Existing Waters of the United States

Waters of the United States, including wetlands and streams, are present onsite. The Bank Site includes approximately 24 acres of PEM wetlands and approximately 1,548 linear feet of stream channel. The wetlands and stream have been degraded through anthropogenic alterations including historic and current agricultural activities (i.e. direct livestock access and grazing, mowing), installation of drainage ditches, and the placement of a stream crossing.

The location and extent of the wetland and stream resources onsite was field delineated on June 10, 2014. These efforts included the field delineation and GPS location of the jurisdictional wetland and stream resources. A preliminary Jurisdictional Determination field investigation by the USACE was performed on July 23, 2014. The location of the onsite jurisdictional wetland and stream resources are shown on Figure 9. The preliminary Jurisdictional Determination approval was granted on August 25, 2014 and is provided in Exhibit H.

E. Stream Order and Type

Field observations in combination with review of available mapping and aerial imagery indicates that the onsite stream (Hop Bottom Creek) is a second order stream. Field data and observations identified Hop Bottom Creek as lower perennial with an unconsolidated mud bottom (R2UBH).

VI. ASSURANCE OF SUFFICIENT WATER RIGHTS

A. Relationship to Aquatic Resources

The aquatic resources within the Bank Site consist of a stream, wetland, and riparian wetland/upland complex typical of perennial systems in similar landscape positions in northeastern Pennsylvania. The on-site perennial stream is designated as a Cold Water Fishery (CWF). The existing stream qualities include sediment and nutrient loads and thermal inputs which can be detrimental to receiving waters. With proper site design, implementation and maintenance, the Bank Site can be restored and enhanced to create better functioning aquatic resources on-site, resulting in improvements within the watershed.

The contributing watershed to the Bank Site is composed of forest, agricultural and rural residential land uses. A comprehensive list of adjacent property owners and a description of the current land use on their property is included in Exhibit A.

Based on the population and development trends within the immediate area and region, the current land use is anticipated to remain in place with no foreseeable significant alterations. As a result, the hydrology inputs and outputs from the Bank Site are expected to remain stable and

constant ensuring that sufficient hydrology is available to support the Bank as a complex and self-sustaining wetland and riparian corridor.

B. Structural Management Requirements

There are no temporary or long term structural management requirements needed to assure hydrological or vegetative restoration.

C. Water Sources and Losses

The recognized contributing water sources within the Bank Site include precipitation, groundwater discharge, surface runoff, and stream flow to the Bank Site. The recognized water losses within the Bank Site include evapotranspiration, groundwater recharge, and stream flow from the Site.

D. Proposed Hydroperiod

Seasonal saturation will be the primary component of wetland hydrology. The existing hydrology, which will be enhanced by construction of the Bank, will ensure the function and success of the Bank Site.

E. Contributing Drainage Area

The contributing drainage area at the northern/upstream extent of the Bank Site is 7,680 acres (12 mi²). A map showing the extent of the Bank Site contributing and cumulative drainage areas is included as Figure 10.

VII. GEOGRAPHIC SERVICE AREA

A. Service Area

The Geographic Service Area (GSA) for the Bank is the Upper Susquehanna River Subbasin (State Water Plan Watershed Subbasin 4). A Service Area map illustrating the Geographic Service Area of the proposed project is included as Figure 4. Currently the Evergreen Hop Bottom Creek Mitigation Bank is the only bank proposed. However, the Sponsor reserves the right to propose a bank in any and all watershed boundaries under the Evergreen Statewide Umbrella Mitigation Baking Instrument (Figure 4a). Evergreen reserves the right to propose revised watershed boundaries for individual projects.

B. Service Area Rationale

The GSA is based on a defined eight-digit HUC established through the application of the Pennsylvania State Water Plan. The goal of the Bank is to support both federal and state water quality initiatives to provide functional improvements to and conservation of the Commonwealth's aquatic resources. The proposed GSA is defined as the proposed scale to focus functional replacement and benefit within the Bank's host watershed, the Upper Susquehanna River Subbasin (State Water Plan Watershed Subbasin 4).

VIII. OWNERSHIP AND LONG-TERM MANAGEMENT

A. Contact Information

The site Owner and Address is:
Mr. & Mrs. William Yachymiak
PO Box 4 - State Route 167
Brooklyn, PA 18813

Bank Sponsor:
Evergreen Environmental, LLC
425 Darby Paoli Road
Wayne, PA 19087
ATTN: James R. Holt, Jr.

B. Encumbrances

The Bank Site has no known encumbrances at this time. Formal survey confirming the presence or absence of encumbrances will be completed prior to submission of the EPSUMBI. A permanent conservation easement will be included as part of the mitigation bank.

C. Long-Term Ownership

The site owner will retain ownership of the land while the Bank Sponsor will retain an easement over the Bank Site. The use of areas within the Bank for any purpose that interferes with its conservation purposes shall not be conducted nor authorized by the Bank Sponsor/Long-Term Owners. The following activities are proposed to be permissible within the proposed easement areas, unless the IRT directs otherwise:

1. Monitoring of vegetation, soils, water, and channel geomorphology;
2. Maintenance of wetlands, restored/enhanced stream segments, riparian buffers, trails, bridges, berms, dams, outlet and spillway structures, and other appurtenant facilities, as approved by the IRT;

3. Hunting, trapping, and fishing and other passive recreational uses such as hiking and bird watching;
4. Ecological education; and
5. Compliance with applicable Federal, State, or local regulations or appropriate court orders.

D. Long-Term Management

Long-term management shall be the responsibility of the Bank Sponsor. The mitigation bank would be monitored and maintained by the Sponsor through the monitoring period until performance metrics are achieved. A primary goal of the Bank is to create a self-sustaining natural aquatic system that achieves the intended goals of the Bank Site with minimal human intervention, such as long-term site maintenance. Natural changes to the vegetative community that occur after all Bank performance standards have been met are not expected to require management or remediation.

A Long-Term Management and Maintenance Plan will be provided in the approved Mitigation Banking Instrument that identifies specific objectives for the long-term management of the Bank Site after the Bank is closed.

Long-Term Management Plan will include as appropriate the following provisions for:

1. Periodic patrols of the Bank Site for signs of trespass and vandalism. Maintenance will include reasonable actions to deter trespass (e.g. mark property boundaries and post "No Trespass") and repair vandalized Bank features (e.g. collect and dispose of rubbish including "white goods" and roofing shingles)
2. Monitoring the condition of structural elements and facilities of the Bank Site such as signage, fencing, and trails. The Long-Term Plan will include provisions to maintain and repair these improvements as necessary to achieve the objectives of the Bank and comply with the provisions of the real estate instrument providing protection to the site. Improvements such as access roads, berms, or water control structures that are no longer needed to facilitate or protect the ecological function of the Bank Site may be removed or abandoned if consistent with the terms and conditions of the recorded Protection Document.
3. Inspection of the Bank Site annually to identify and locate non-native invasive species. Control measures will be implemented for non-native invasive plant species that occupy more than 10% cover of the total bank area, unless such species is specifically excluded in the Mitigation Banking Instrument. Reed canary grass is a native species and will not be controlled within the Evergreen Hop Bottom Creek Mitigation Bank. Therefore, reed canary grass is not subject to the provisions of this section.
4. Repair of damage to the Bank Site caused by catastrophic events beyond the control of the Bank Sponsor or Long-Term Steward (Force Majeure) will not be included in the Long-Term Management Plan.

The long-term management will be undertaken following the completion of success monitoring. Long-term success achievement will be verified by the submittal of status reports to the IRT on a schedule approved by the IRT.

E. Site Protection Instrument

The Bank Site will be protected in perpetuity through the establishment of a deed restriction or conservation easement based on the template document established for Pennsylvania which has been made available to the Bank Sponsor during the preliminary development stages of the Bank (Exhibit I). The finalization and approval of the site protection instrument will be based on the IRT's review, adjustment recommendations (if needed), and approval of the Instrument language and format.

F. Site Protection Instrument Holder

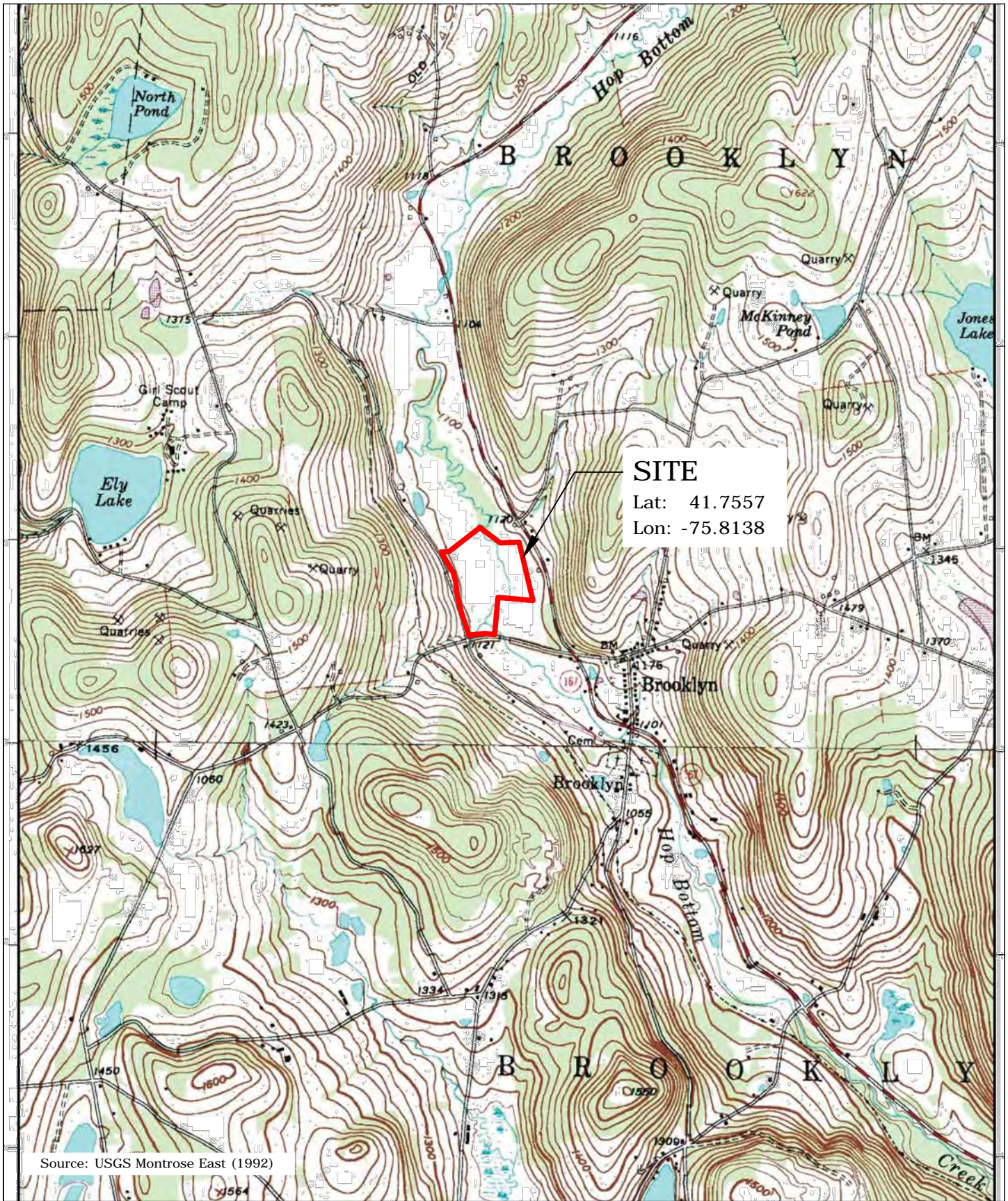
The Bank Sponsor will retain the Site Protection Instrument. Transfer to an appropriate third party individual or organization may take place upon review and approval by the IRT.

IX. SPONSOR QUALIFICATIONS

Evergreen Environmental has successfully restored 1,234 acres in New Jersey, Pennsylvania and Virginia. Evergreen has designed and built 8 mitigation banks with 4 additional banks in the approval review process. Additionally, Evergreen has designed 43 turnkey mitigation sites for various oil/gas and development clients. Evergreen currently manages five approved mitigation banks under contract to Marsh Resources, LLC in Virginia. Each bank has been successfully established, maintained, and monitored for up to eight years, using a design approach that fosters a naturally sustaining ecosystem with minimal engineering. Evergreen is a member of the National Mitigation Banking Association.

CD OF PROSPECTUS

FIGURES



Source: USGS Montrose East (1992)

SITE
 Lat: 41.7557
 Lon: -75.8138



425 Darby Paoli Road Wayne, PA 19087
 (610) 687-4458

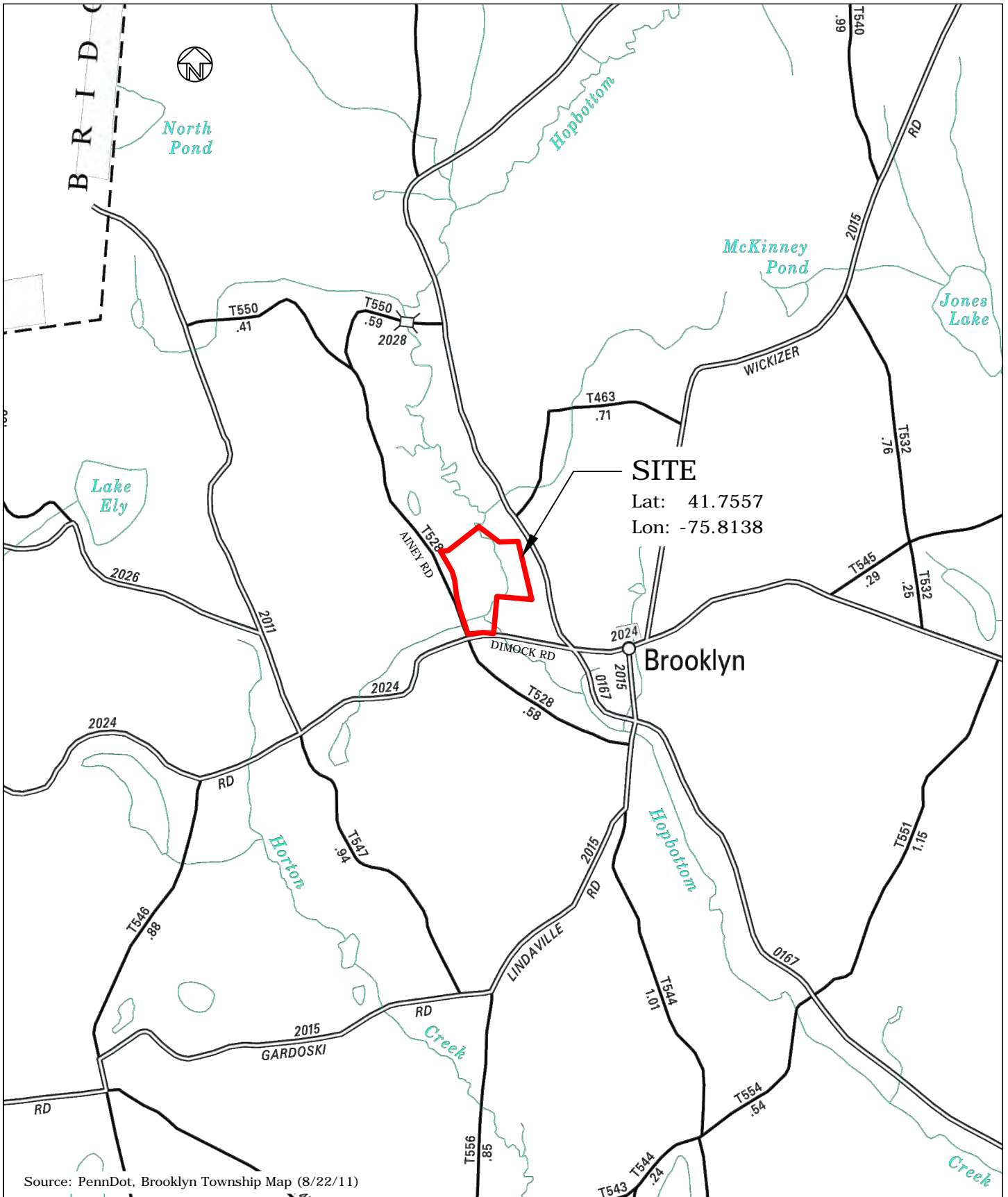
USGS Map
HOP BOTTOM CREEK MITIGATION SITE

APN: 183.00-1-008.00-000
 Brooklyn Township
 Susquehanna County Pennsylvania

FIGURE 1

SCALE: 1"=2000 feet

DATE: August 2014



425 Darby Paoli Road Wayne, PA 19087
 (610) 687-4458

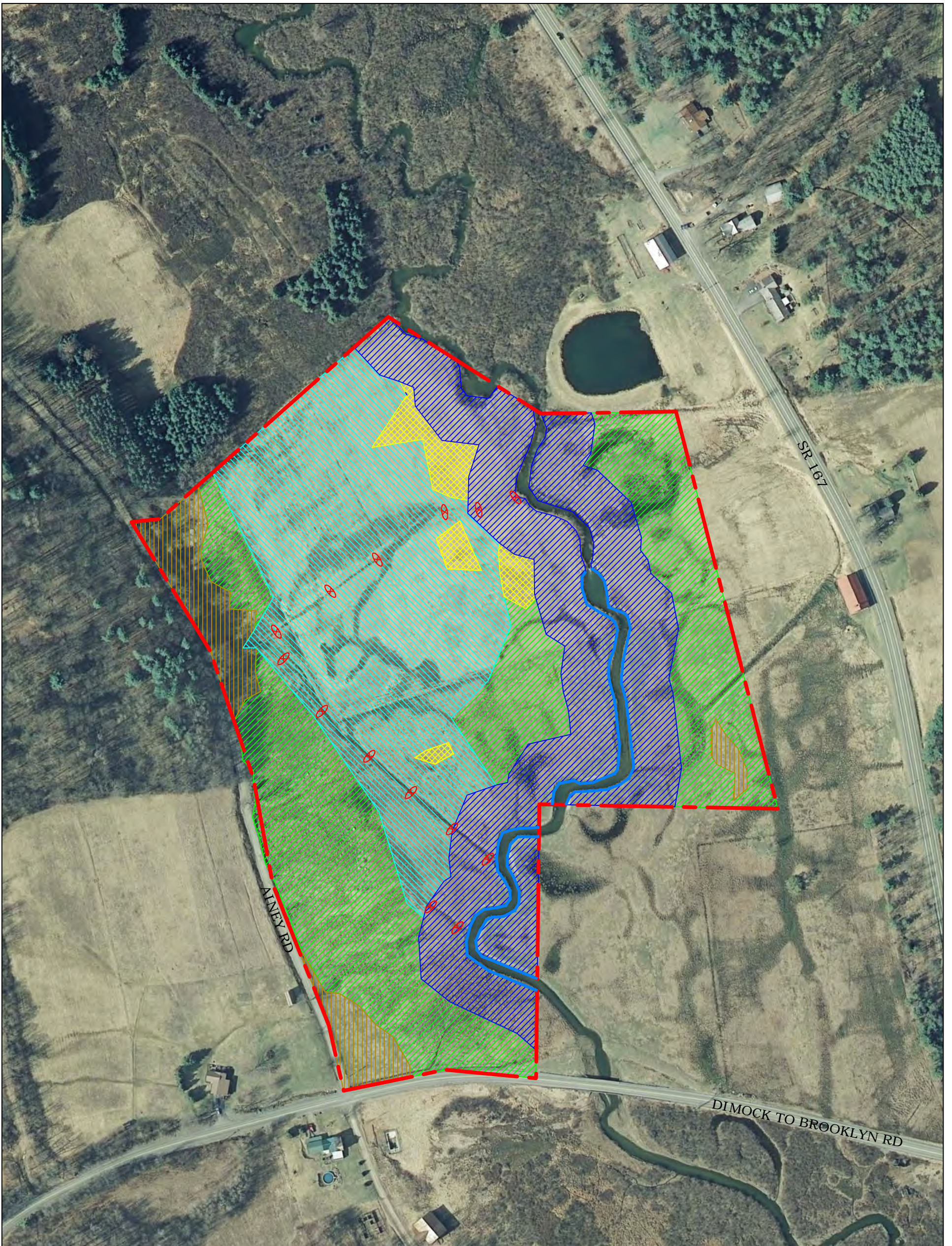
Vicinity Map
HOP BOTTOM CREEK MITIGATION SITE

APN: 183.00-1-008.00-000
 Brooklyn Township
 Susquehanna County Pennsylvania






FIGURE 2

SCALE: 1"=2000 feet

DATE: August 2014

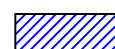



Wetland Mitigation:

-  WETLAND RE-ESTABLISHMENT (0.8 Ac)
-  WETLAND REHABILITATION (8.8 Ac)
-  WETLAND ENHANCEMENT (9.1 Ac)
-  WETLAND BUFFER (ZOI) ENHANCEMENT (1.6 Ac)
-  DITCH PLUG



Stream Mitigation:

-  RIPARIAN BUFFER ENHANCEMENT (7.1 Ac)
(100 feet on both sides of stream)
-  STREAMBANK ENHANCEMENT
(Live-Stake 1,150 feet on both banks)

Notes:

1. Aerial photography dated April 17, 2008 (Source- <http://earthexplorer.usgs.gov/>)
2. Location and acreage of each mitigation type is approximate and subject to change during final design.



425 Darby Paoli Road Wayne, PA 19087
(610) 687-4458

**Concept Plan
HOP BOTTOM CREEK MITIGATION SITE**

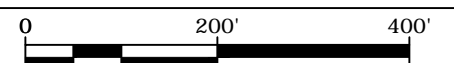
APN: 183.00-1-008.00-000
Brooklyn Township

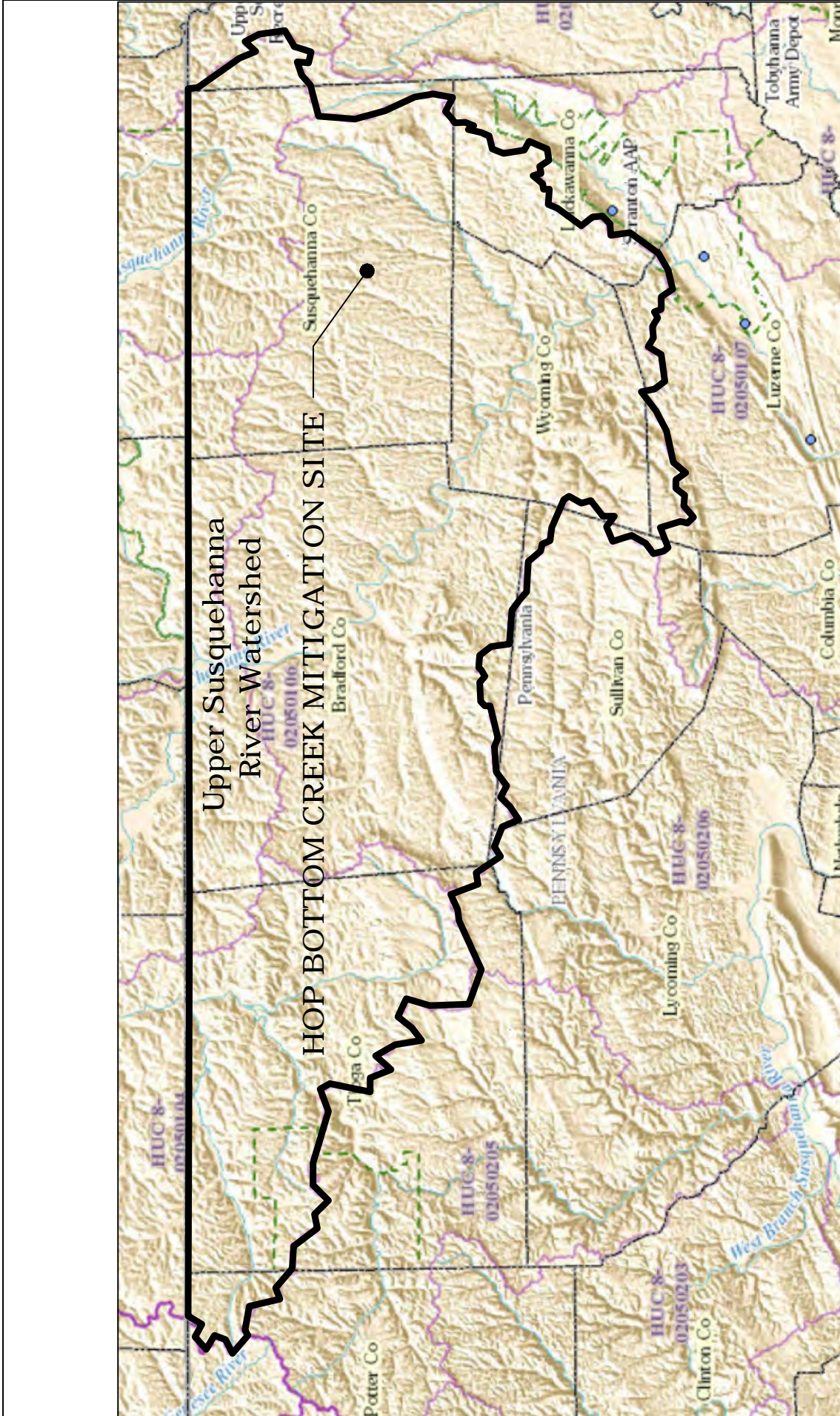
Susquehanna County

Pennsylvania

FIGURE 3

Date: August 2014

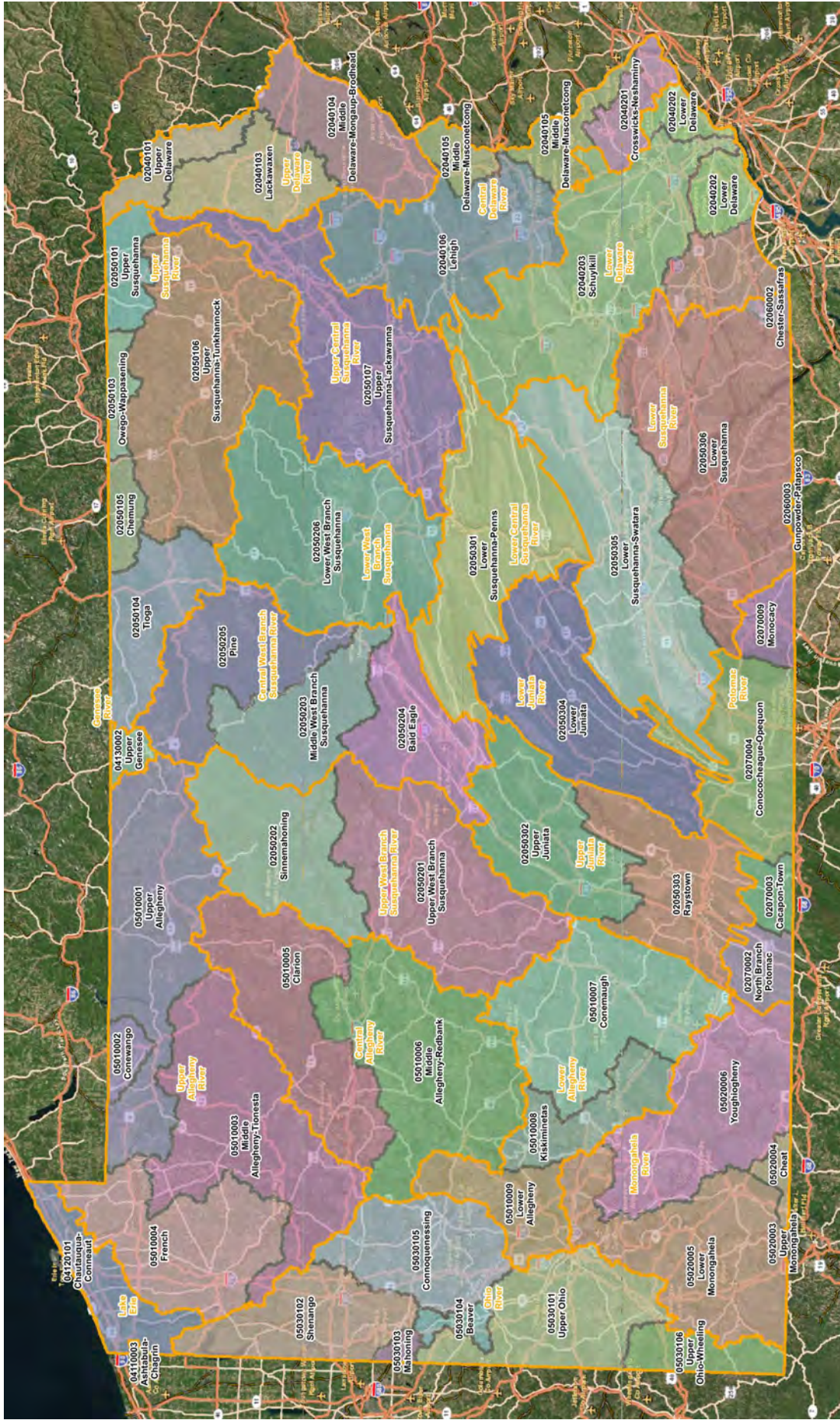




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Service Area
HOP BOTTOM CREEK MITIGATION SITE
 APN: 183.00-1-008.00-000
 Brooklyn Township
 Susquehanna County Pennsylvania

FIGURE 4
 Not to Scale
 DATE: August 2014



Service Area

EVERGREEN STATEWIDE UMBRELLA MITIGATION BANKING INSTRUMENT

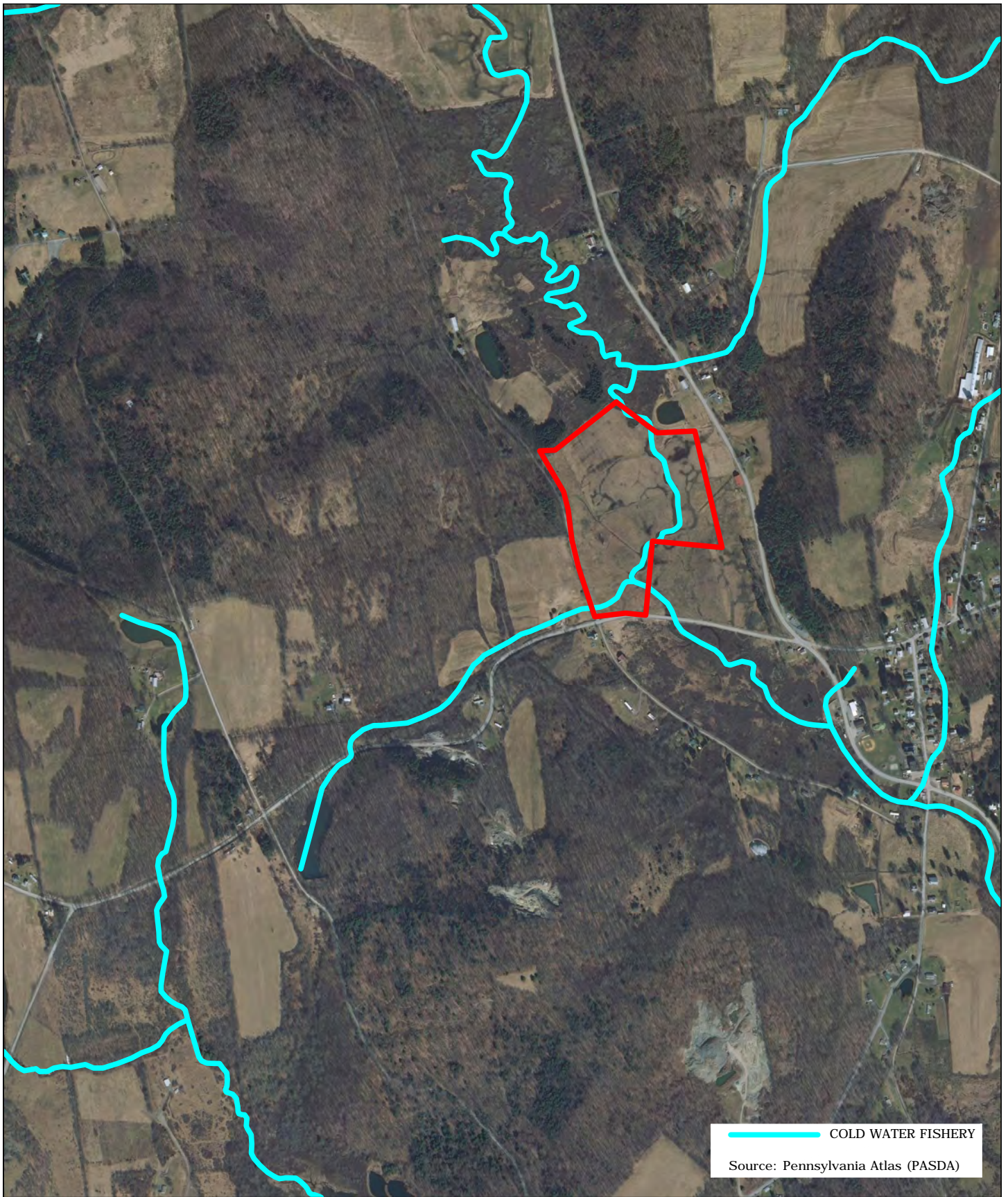
FIGURE 4A

Not to Scale

DATE: October 2014



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——— COLD WATER FISHERY
 Source: Pennsylvania Atlas (PASDA)



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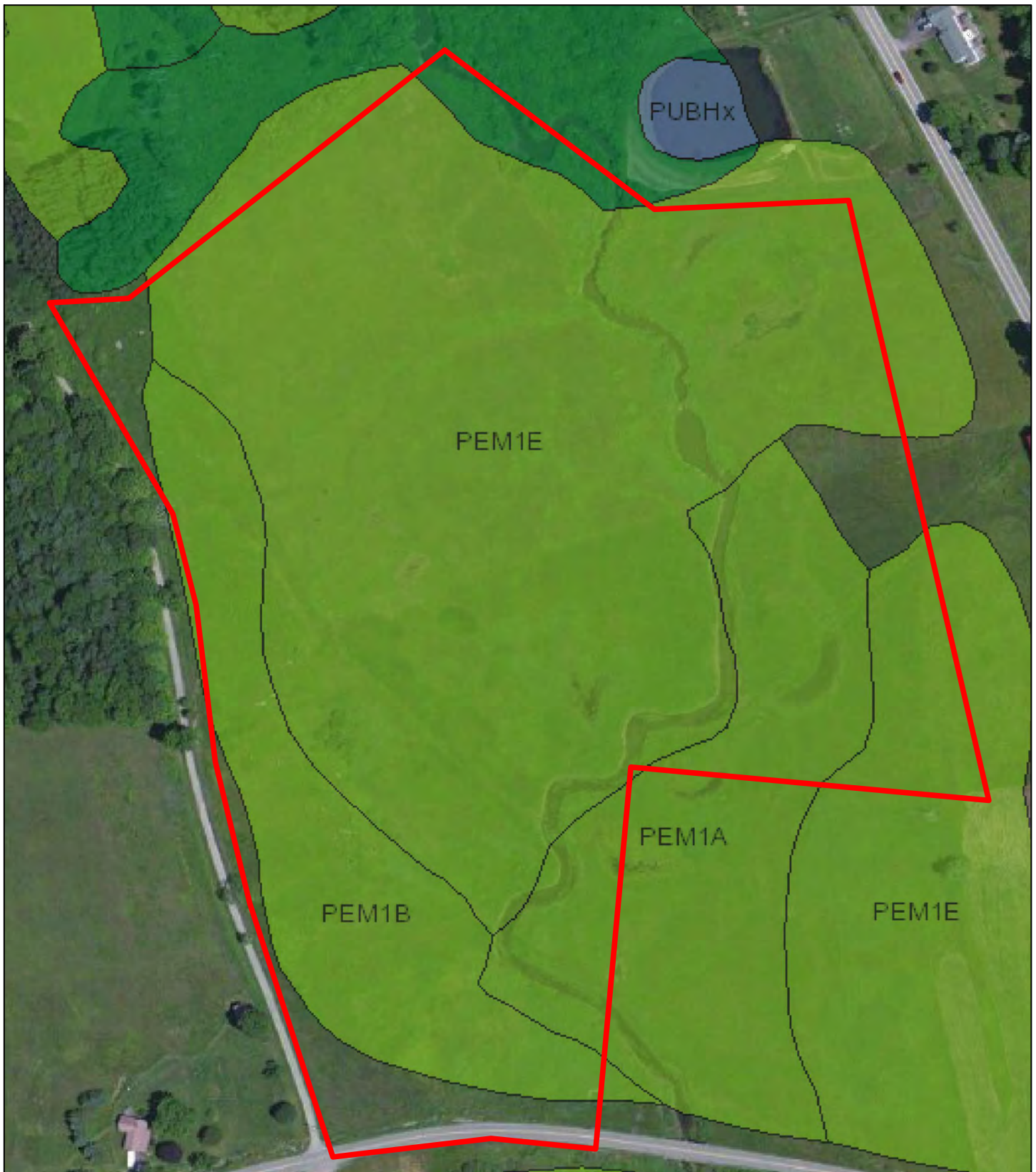
Stream Designation
HOP BOTTOM CREEK MITIGATION SITE

APN: 183.00-1-008.00-000
 Brooklyn Township
 Susquehanna County Pennsylvania

FIGURE 5

SCALE: 1"= 1000 feet

DATE: August 2014



Source: US Fish and Wildlife Service Wetlands Mapper
 (<http://www.fws.gov/wetlands/Data/Mapper.html>)



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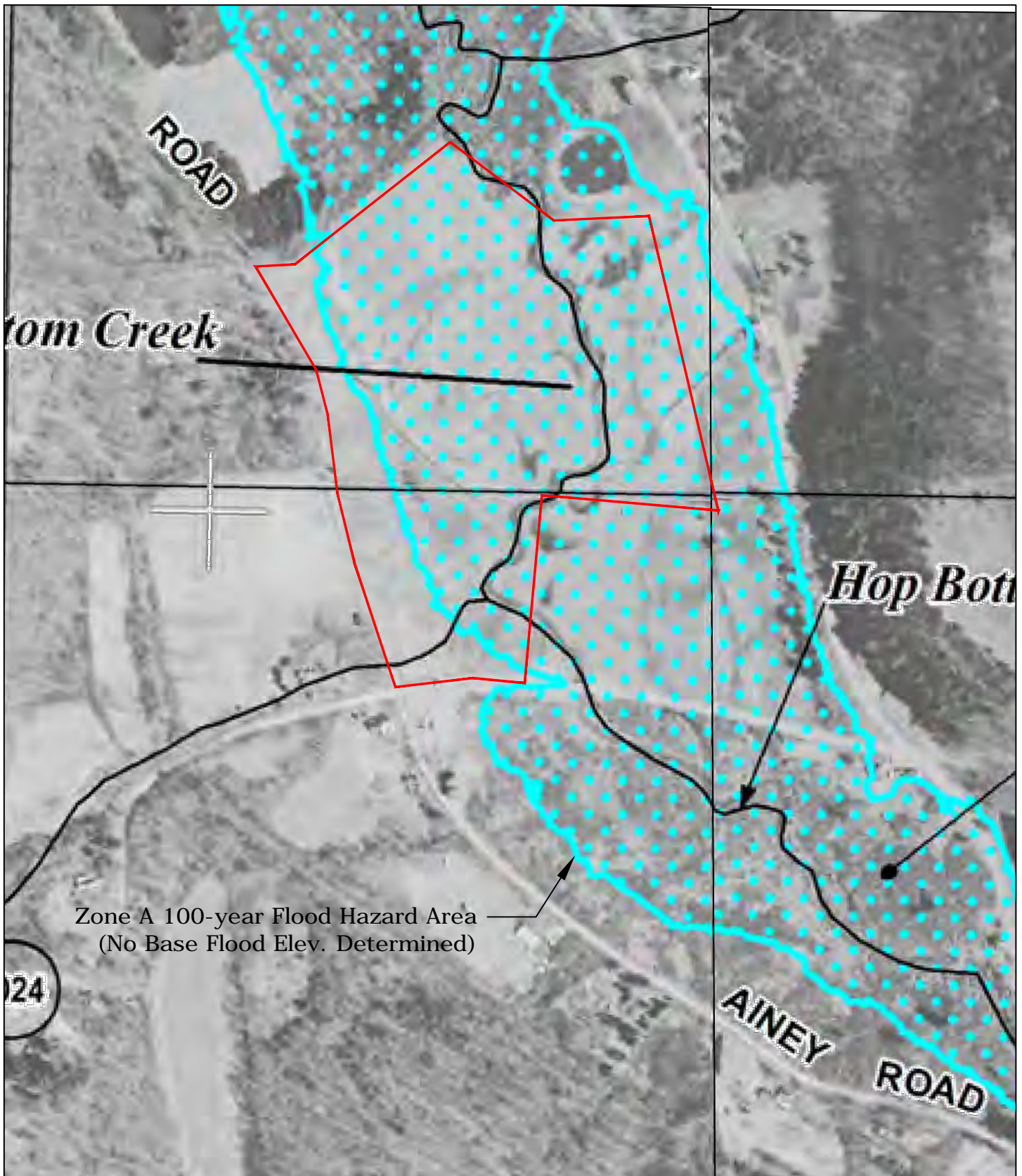
NWI Map
HOP BOTTOM CREEK MITIGATION SITE

APN: 183.00-1-008.00-000
 Brooklyn Township
 Susquehanna County, Pennsylvania

FIGURE 6

SCALE: 1"=200 feet

DATE: August 2014



Source: FEMA Flood Insurance Rate Maps FM42115C0265C and FM42115C0270C)



425 Darby Paoli Road Wayne, PA 19087
(610) 687-4458

**FEMA Floodplain Map
HOP BOTTOM CREEK MITIGATION SITE**

APN: 183.00-1-008.00-000
Brooklyn Township
Susquehanna County, Pennsylvania

FIGURE 7

SCALE: 1"= 400 feet

DATE: August 2014



LsF - Lordstown and Oquaga very stony silt loams, 30-70% slopes (non-hydric)

Hw - Holly silt loam (hydric)

Wy - Wyalusing silt loam (hydric)

WeC2 - Wellsboro channery silt loam, 8-15% slopes (predominately non-hydric)

Source: Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov>)



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(610) 687-4458

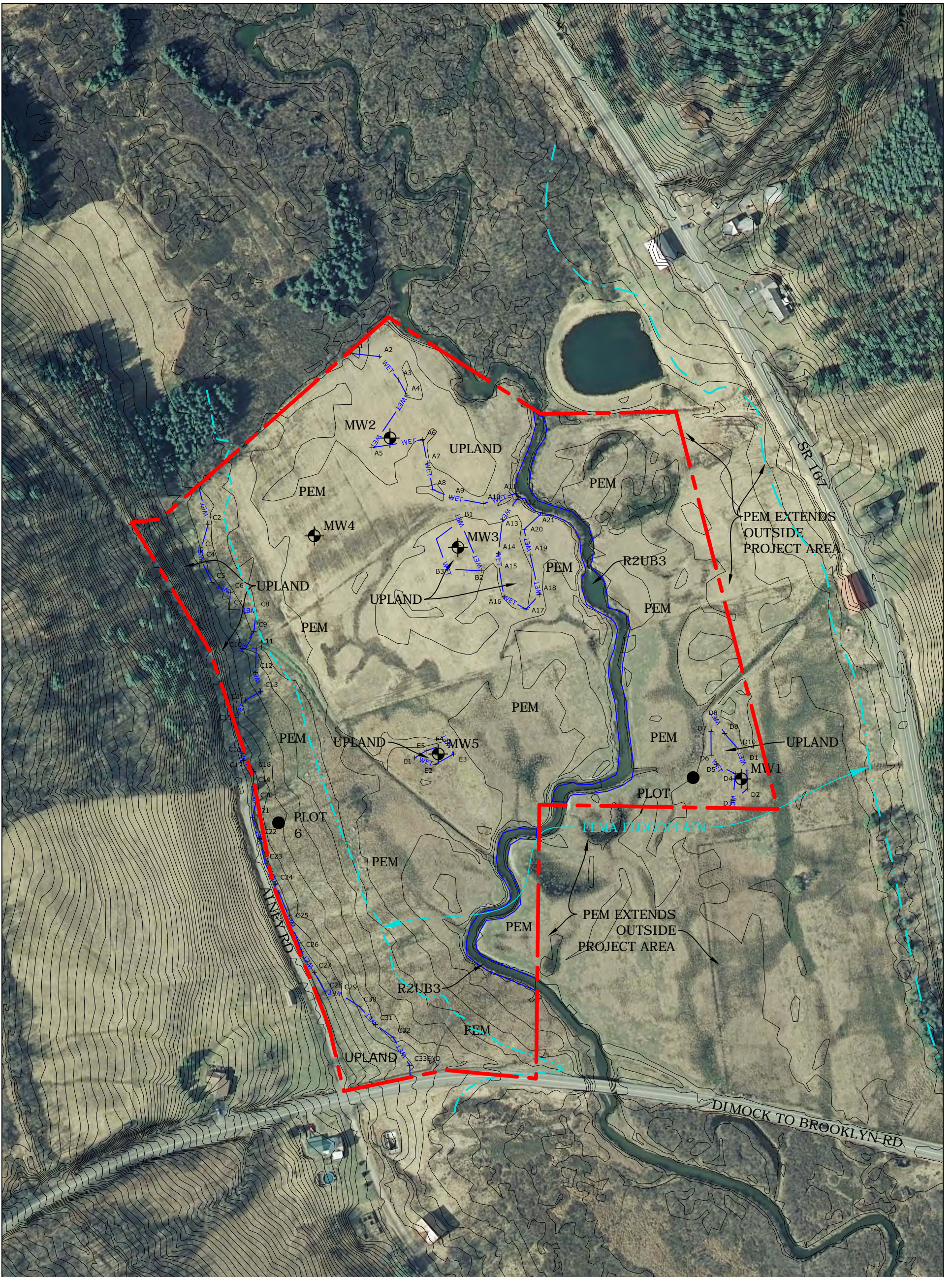
Soils Map HOP BOTTOM CREEK MITIGATION SITE

APN: 183.00-1-008.00-000
Brooklyn Township
Susquehanna County, Pennsylvania

FIGURE 8

SCALE: 1"=300 feet

DATE: August 2014



Notes:

- Coordinates for each wetland flag were obtained using a handheld Global Positioning System (GPS), with differential correction (Thales Mobile Mapper, now manufactured by Magellan). Data was post-processed using nearby reference stations located in Towanda, Pennsylvania and Binghamton, New York.
- Contours obtained from: Pennsylvania Department of Conservation and Natural Resources. PAMAP 2-foot LiDAR contours. Available at: <http://www.pasda.psu.edu>.
- Aerial photography dated April 17, 2008 (Source- <http://earthexplorer.usgs.gov/>)
- Wetland boundary was field verified by Corps of Engineers on July 23, 2014.

Legend:

- Monitoring Well / Data Plot
- Data Plot
- Wetland Flag Number
- Wetland Boundary
- Palustrine Emergent Wetland
- Riverine, lower perennial, mud bottom



EVERGREEN ENVIRONMENTAL

425 Darby Paoli Road Wayne, PA 19087
(610) 687-4458

**Wetland Delineation
HOP BOTTOM CREEK MITIGATION SITE**

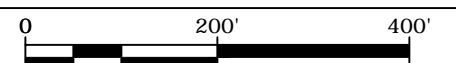
APN: 183.00-1-008.00-000
Brooklyn Township

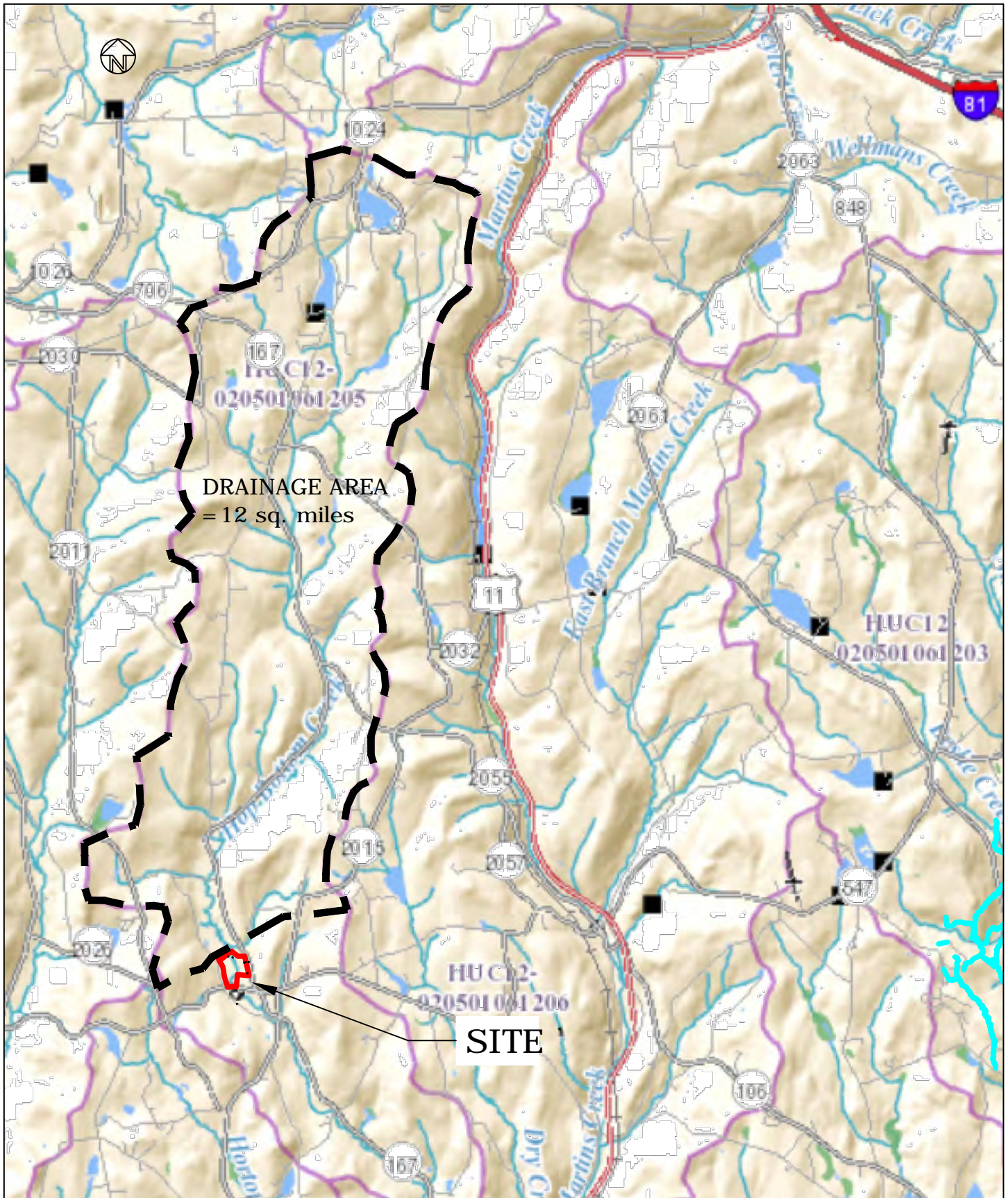
Susquehanna County

Pennsylvania

FIGURE 9

Date: August 2014





425 Darby Paoli Road Wayne, PA 19087
(610) 687-4458

**Drainage Area
HOP BOTTOM CREEK MITIGATION SITE**

APN: 183.00-1-008.00-000
Brooklyn Township
Susquehanna County, Pennsylvania

FIGURE 10

SCALE: 1"=6000 feet

DATE: August 2014

EXHIBIT A

ADJACENT PROPERTY OWNER LIST

THIS INFORMATION IS NOT BEING RELEASED
AS PART OF THIS PUBLIC NOTICE.

EXHIBIT B

PNDI REVIEW INFORMATION

1. PROJECT INFORMATION

Project Name: **Hop Bottom Creek Mitigation Site**

Date of review: **7/22/2014 11:21:27 AM**

Project Category: **Habitat Conservation and Restoration, Wetland Restoration, Wetland Creation, or Wetland Enhancement**

Project Area: **30.2 acres**

County: **Susquehanna Township/Municipality: Brooklyn**

Quadrangle Name: **MONTROSE EAST** ~ ZIP Code: **18826**

Decimal Degrees: **41.756439 N, -75.814305 W**

Degrees Minutes Seconds: **41° 45' 23 N, W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA.
17105-8552
Fax:(717) 772-0271

U.S. Fish and Wildlife Service
Endangered Species Section
315 South Allen Street, Suite 322, State College, PA.
16801-4851
NO Faxes Please.

PA Fish and Boat Commission
Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

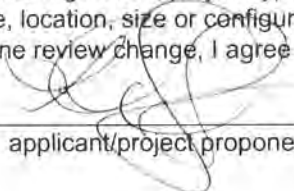
PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Linda Kenney
Company/Business Name: Evergreen Environmental
Address: 425 Dauby Park Rd
City, State, Zip: Wayne PA 19087
Phone: (610) 687-4458 Fax: (610) 687-9433
Email: LKenney@evergreenenv.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.



applicant/project proponent signature

7/22/14

date

EXHIBIT C

PHMC CORRESPONDENCE

ER# 2014-0279-115-B



PROJECT REVIEW FORM

Request to Initiate SHPO Consultation on
State and Federal Undertakings

SHPO USE ONLY	
DATE RECEIVED:	8/4/14
ER NUMBER:	

REV: 5/2012

SECTION A: GENERAL PROJECT INFORMATION

Is this a new submittal? YES NO OR This is additional information for ER Number: 2014-0279-115

Project Name Hop Bottom Creek Wetland Mitigation Bank County Susquehanna

Project Address State Route 2024 & Ainey Road

City/State/ Zip Kingsley PA 18826 Municipality Brooklyn Township

SECTION B: PRIMARY CONTACT INFORMATION

Name Ms. Linda Kenney Phone (215) 493-1121

Company Evergreen Environmental Fax (610) 687-9433

Street/P.O. Box 558 Aspen Woods Drive Email LKenney@evergreenenv.com

City/State/Zip Yardley PA 19067

SECTION C: PROJECT DESCRIPTION

This project is located on: Federal property State property Municipal property Private property (check all that apply)

List all Federal and State agencies and programs (funding, permits, licenses) involved in this project	Agency Type	Agency/Program/Permit Name	Project/Permit/Tracking Number (if applicable)
	Federal	USCAE Section 404/401	
	State	PADEP Dams & Waterways Chapter 105	

Proposed Work – Attach project description, scope of work, site plans, and/or drawings

Project includes (check all that apply): Construction Demolition Rehabilitation Disposition

Total acres of project area: 29 Total acres of earth disturbance: 0

Are there any buildings or structures within the project area? Yes No Approximate age:

This project involves properties listed in or eligible for listing in the National Register of Historic Places, or designated as historic by a local government	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unsure <input type="radio"/>	Name of historic property or historic districts
---	---------------------------	-------------------------------------	------------------------------	---

Please print and mail completed form and all attachments to: PHMC State Historic Preservation Office 400 North St. Commonwealth Keystone Building, 2nd Floor Harrisburg, PA 17120-0093	Attachments – Please include the following information with this form			
	<input checked="" type="checkbox"/>	Map – 7.5' USGS quad showing project boundary and Area of Potential Effect		
	<input checked="" type="checkbox"/>	Description/Scope – Describe the project, including any ground disturbance and previous land use		
	<input checked="" type="checkbox"/>	Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area		
	<input checked="" type="checkbox"/>	Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan		

SHPO DETERMINATION (SHPO USE ONLY)		SHPO REVIEWER: <i>[Signature]</i> 8/19/14	
<input type="checkbox"/> There are NO HISTORIC PROPERTIES in the Area of Potential Effect	<input type="checkbox"/> The project will have NO ADVERSE EFFECTS WITH CONDITIONS (see attached)	<input checked="" type="checkbox"/> The project will have NO EFFECT on historic properties	<input type="checkbox"/> SHPO REQUESTS ADDITIONAL INFORMATION (see attached)
<input type="checkbox"/> The project will have NO ADVERSE EFFECTS on historic properties:			

July 31, 2014

**Attn: Douglas C. McLearen, Chief
Division of Archaeology & Protection
Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Second Floor
Harrisburg, Pennsylvania 17120-0093**

**Subject: Cultural Resources Notice, ER # 2014-0279-115
Hop Bottom Creek Wetland Mitigation Bank
Brooklyn Township, Susquehanna County, PA**

Dear Mr. McLearen:

On behalf of Evergreen Environmental, LLC (Evergreen) and in accordance with the Pennsylvania Cultural Resource Notice Requirements, J Marine Consulting, LLC (JMC) is submitting supplementary project information for your review.

Evergreen proposes to enhance, rehabilitate, and restore on-site wetlands and riparian zones at the Bank-Site “Project” area located along Hop Bottom Creek in Brooklyn Township, Susquehanna County, Pennsylvania (Figure 1). The majority of restoration and enhancement activities will consist of planting 12 – 18 inches tall native trees and shrubs.

Historically the Project area was used for agriculture and grazing but the perennial wet conditions hampered these efforts. Approximately half the site is currently used for hay production. In an attempt to drain portions of the site in order to support agricultural efforts, the property owners excavated drainage ditches after 1941.

In order to restore these wetland areas, ditch plugs will be installed within some of the man-made ditches on the western side of the Project area. Material for the ditch plugs will consist of a bentonite base mixed with discarded side cast material from the original drainage ditches. No grading will be necessary, but plowing to facilitate installation of native woody vegetation and herbaceous seed mix may be necessary in some areas (Figure 2).

Because the planned project activities would result in minimal subsurface impacts, JMC conducted a geomorphological reconnaissance to address the PHMC request for a Phase I archaeological survey (ER # 2014-0279-115-A). A conference call was held 05/13/14 with PHMC reviewer, Mr. Steve McDougal, to discuss the results of the survey. The call was attended by Ms. Linda Kenney of Evergreen and Mr. James Marine of JMC.



After apprising Mr. McDougal of the site conditions and planned project activities, Mr. McDougal indicated that an updated Cultural Resources Notice presenting the results of a geomorphological reconnaissance conducted by Mr. Marine should result in a Determination of No Effect to Historic Properties and that no additional consultation or archaeological fieldwork would be required by the PHMC. The results of the survey are attached for your review (Attachment I).

Sincerely,

James T. Marine, MS/RPA
Geomorphologist

Cc Ms. Linda Kenney



PROJECT REVIEW FORM

Request to Initiate SHPO Consultation on State and Federal Undertakings

SHPO USE ONLY
DATE RECEIVED:
ER NUMBER:

REV: 5/2012

SECTION A: GENERAL PROJECT INFORMATION

Is this a new submittal?	YES	NO	OR	This is additional information for ER Number:
Project Name				County
Project Address				
City/State/ Zip				Municipality

SECTION B: PRIMARY CONTACT INFORMATION

Name	Phone
Company	Fax
Street/P.O. Box	Email
City/State/Zip	

SECTION C: PROJECT DESCRIPTION

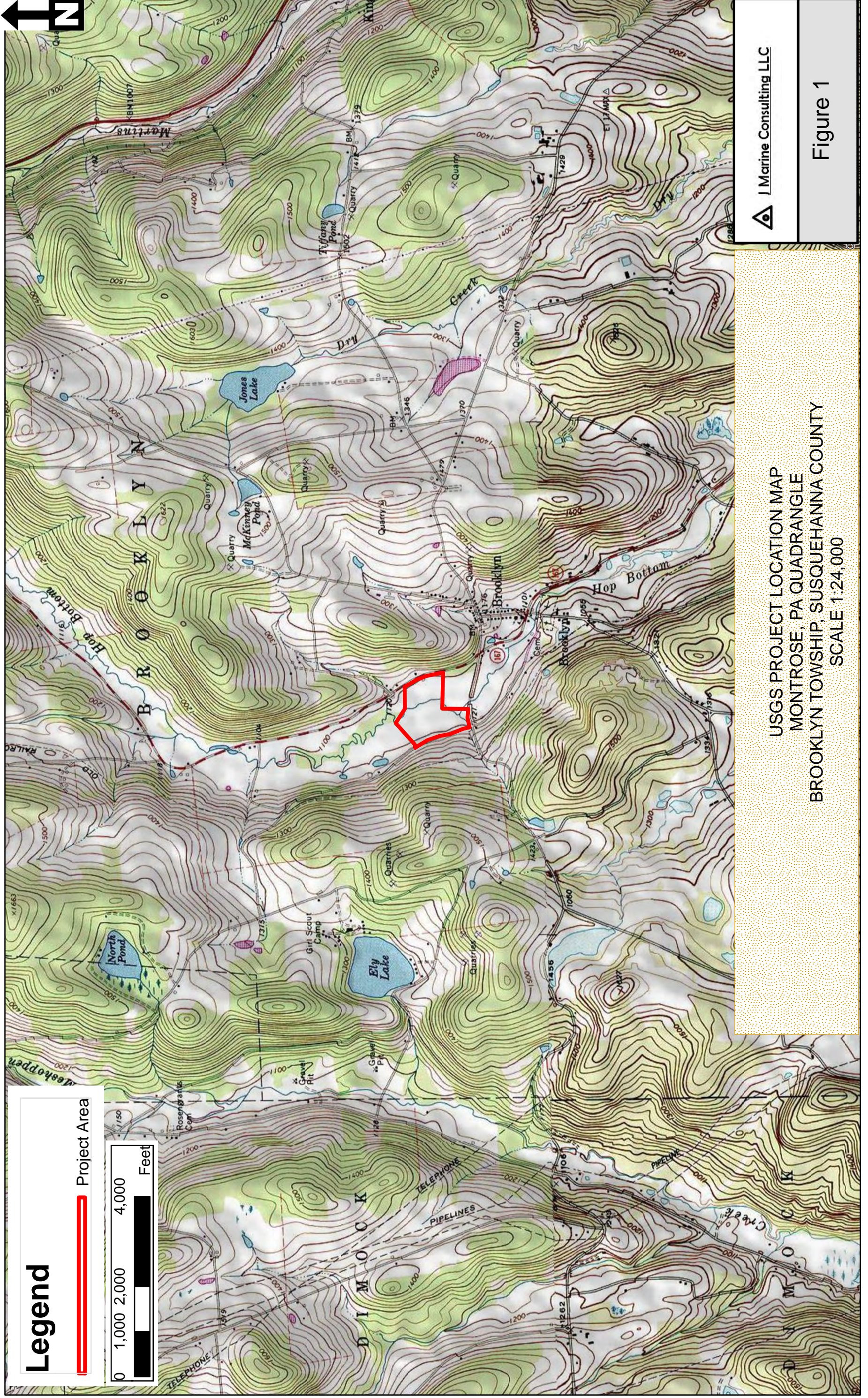
This project is located on: (check all that apply)	Federal property	State property	Municipal property	Private property
List all Federal and State agencies and programs (funding, permits, licenses) involved in this project	Agency Type	Agency/Program/Permit Name	Project/Permit/Tracking Number (if applicable)	

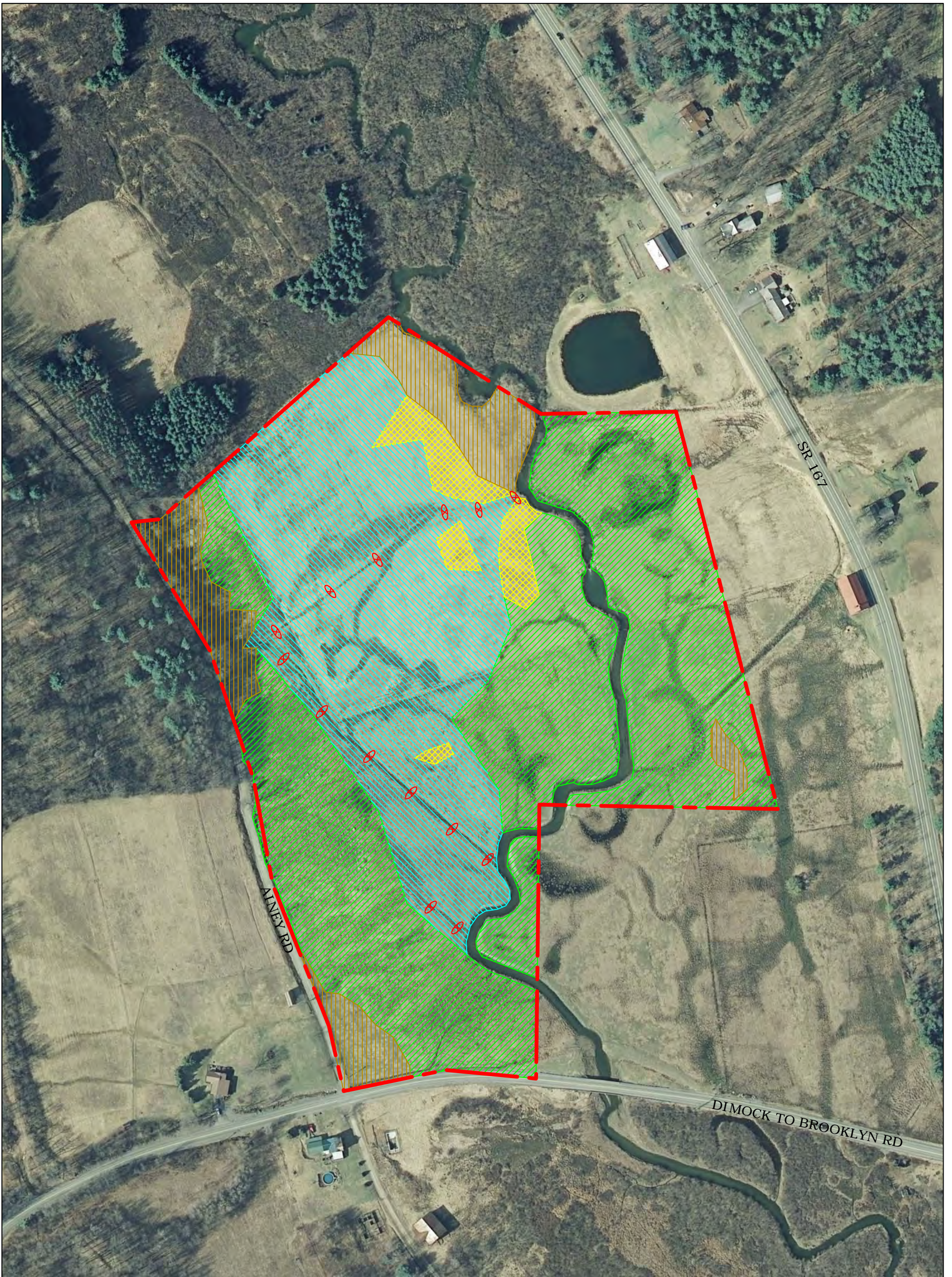
Proposed Work – Attach project description, scope of work, site plans, and/or drawings

Project includes (check all that apply):	Construction	Demolition	Rehabilitation	Disposition
Total acres of project area:	Total acres of earth disturbance:			
Are there any buildings or structures within the project area?	Yes	No	Approximate age:	
This project involves properties listed in or eligible for listing in the National Register of Historic Places, or designated as historic by a local government	Yes	No	Unsure	Name of historic property or historic districts




Please print and mail completed form and all attachments to: PHMC State Historic Preservation Office 400 North St. Commonwealth Keystone Building, 2nd Floor Harrisburg, PA 17120-0093	Attachments – Please include the following information with this form
	Map – 7.5' USGS quad showing project boundary and Area of Potential Effect
	Description/Scope – Describe the project, including any ground disturbance and previous land use
	Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area
	Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan




SHPO DETERMINATION (SHPO USE ONLY)	SHPO REVIEWER:
<input type="checkbox"/> There are NO HISTORIC PROPERTIES in the Area of Potential Effect <input type="checkbox"/> The project will have NO EFFECT on historic properties <input type="checkbox"/> The project will have NO ADVERSE EFFECTS on historic properties:	<input type="checkbox"/> The project will have NO ADVERSE EFFECTS WITH CONDITIONS (see attached) <input type="checkbox"/> SHPO REQUESTS ADDITIONAL INFORMATION (see attached)





Legend:

-  WETLAND RE-ESTABLISHMENT (1.0 Ac)
-  WETLAND REHABILITATION (9.7 Ac)
-  NO HATCH STREAM BED (1.0 Ac)

-  WETLAND ENHANCEMENT (14.4 Ac)
-  WETLAND ZOI ENHANCEMENT (2.8 Ac)
-  DITCH PLUG

Notes:

1. Aerial photography dated April 17, 2008 (Source- <http://earthexplorer.usgs.gov/>)



Concept Plan
HOP BOTTOM CREEK MITIGATION SITE
 APN: 183.00-1-008.00-000
 Brooklyn Township
 Susquehanna County Pennsylvania

Figure 2

Date: July 2014



ATTACHMENT I

Results of Geomorphological Reconnaissance

ENVIRONMENTAL CONTEXT

The Project area lies in the Glaciated Low Plateau Section of the Appalachian Plateau Physiographic Province (PA DCNR). The topography of the section is characterized by rounded hills and broad to narrow valleys all of which have been modified by glacial erosion and deposition. Glacial deposits composed of sand and gravel, are commonly found in the valley bottoms and along the valley margins.

The Project area is underlain by Devonian sandstone and shale of the Catskill Formation (Berg et.al. 1980), which is in turn overlain by glacial till that has been dissected and reworked by lateral migration of the stream throughout the Holocene. The floodplain surface is raised approximately 2 meters above the pool level of the stream and is marked by several oxbow scars indicating the stream has migrated laterally across the valley bottom (Figure A-1). Soils in the Project area as mapped as Wyalusing Series Silt Loam, which are formed in alluvial deposits on poorly drained floodplains with slopes of 0-5% (USDA 2013).

METHODS

Pedestrian reconnaissance found the majority of the property contained standing water in or around relict oxbows and was not suitable for testing. Therefore the focus of the geomorphological testing was the slightly higher, and dryer north central region of the Project Area just west of Hop Bottom Creek, which also represented the area of highest archaeological potential.

Fieldwork consisted of the excavation of three hand-auger tests placed at increasing distance from the channel edge to ensure the sampling was representative of the entire Project area. A bucket auger was used to document the stratigraphic sequence in the area proposed for plowing and vegetative restoration. To prevent the auger from binding a 50 x 50 centimeter pit was excavated to approximately 50 centimeters below surface before inserting the hand auger. The stratigraphic sequence encountered was drawn to scale in profile. Soil characteristic including Munsell-color, texture and structure were noted and used as the basis to classify the horizon by master and sub-horizons.

RESULTS

Auger Test 1 was placed approximately 15 meters west of the channel edge on the cutbank side of a meander loop (Figure 1). The stratigraphic sequence encountered consisted of a thin AC horizon underlain by stacked C horizons composed of fine to medium massive sands (Figure A-2).

Auger Test 2 was placed approximately 45 meters northwest of Auger Test 1 on a slight rise in the floodplain. The stratigraphic sequence encountered consisted of a plowzone and E horizon underlain by stacked C horizon composed of fine to medium massive sands (Figure A- 2).

Auger Test 3 was placed near north central boundary of the Project area. The stratigraphic sequence encountered consisted of a low-chroma hydric plowzone underlain by stacked C horizon composed of fine to medium sands (Figure 2).

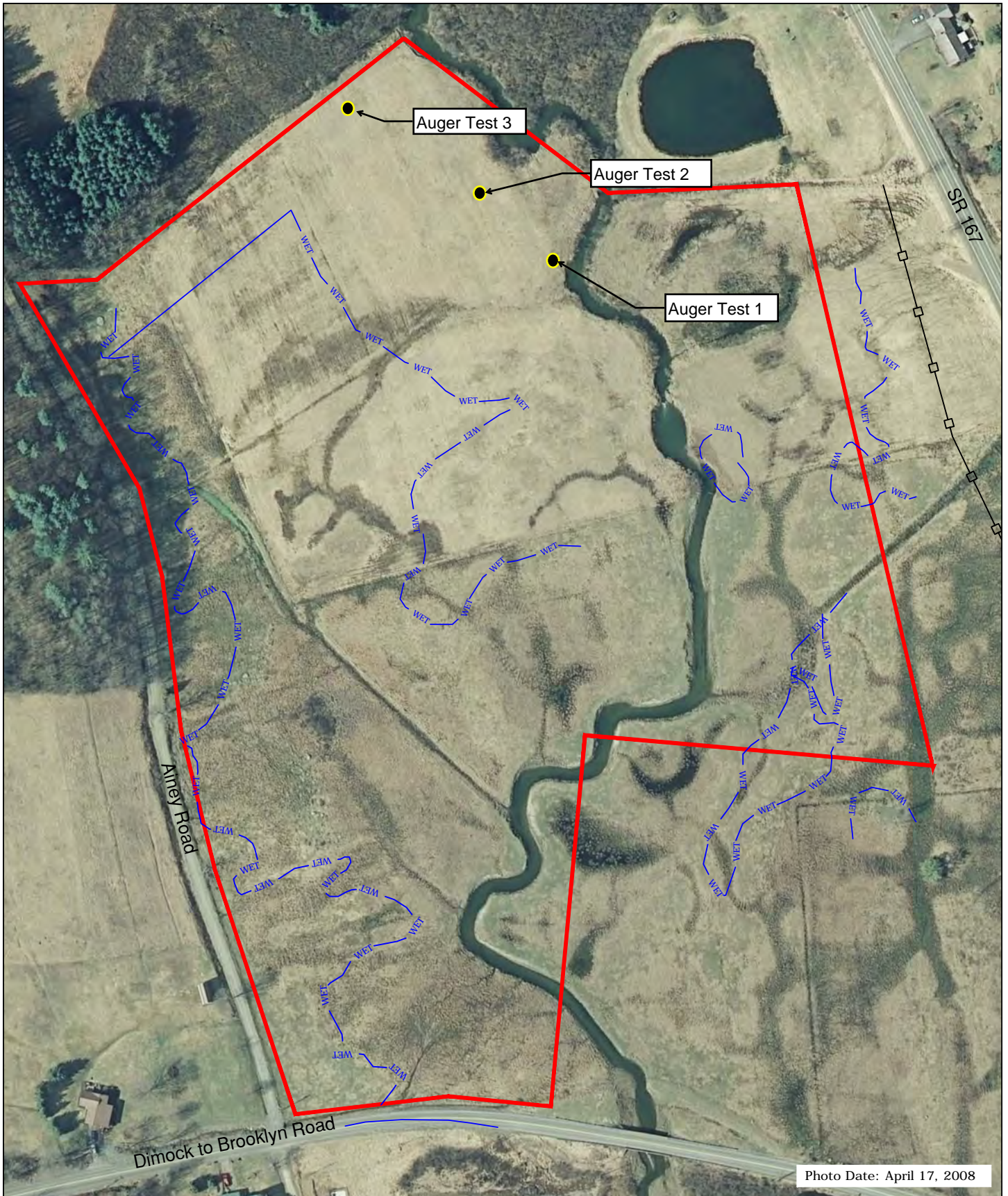
CONCLUSIONS & RECOMMENDATIONS

Multiple lines of evidence lead to the conclusion that the floodplain has been dissected and reworked by lateral migration of the stream repeatedly during the Holocene. Oxbow scars are prevalent across the floodplain indicating stream course changes (Figure 1). The lack of a B horizon indicates that the floodplain is dynamic and has not been stable long enough to develop the pedologic structure and oxidation signature characteristic of a B horizon. The presence of stacked C horizons indicates the area is frequently flooded. Reworking of the existing floodplain sediments occurs via over-banking of the main channel and the relict oxbow channels that act as flood chutes during flood events. This repeated reworking of the floodplain makes it unlikely that in-situ archeological deposits are present in the Project Area.

Given the low probability of in-situ archaeological being present in such a dynamic environment, and the minimal disturbance caused by plowing and installation of ditch plugs, the project would have no effect on historic properties and no further work is recommended.

REFERENCES CITED

- Berg, T. M., Edmunds, W. E., Geyer, A. R., and others, compilers
1980 Geologic map of Pennsylvania (2nd ed.): Pennsylvania Geological Survey, 4th ser., Map 1, 3 sheets, scale 1:250,000.
- Sevon, W.D.
2000 Physiographic Provinces of Pennsylvania (4th ed.) Pennsylvania Department of Conservation and Natural Resources, Map 13.
- United States Department of Agriculture (USDA)
2013 Web Soil Survey, Wyalusing Series, Official Description
https://soilseries.sc.egov.usda.gov/OSD_Docs/W/WYALUSING.html.



425 Darby Paoli Road Wayne, PA 19087
(610) 687-4458

Existing Conditions HOP BOTTOM MITIGATION SITE

APN: 183.00-1-008.00-000
Brooklyn Township
Susquehanna County, Pennsylvania

Figure A-1

SCALE: 1" = 200 feet

DATE: February 17, 2014

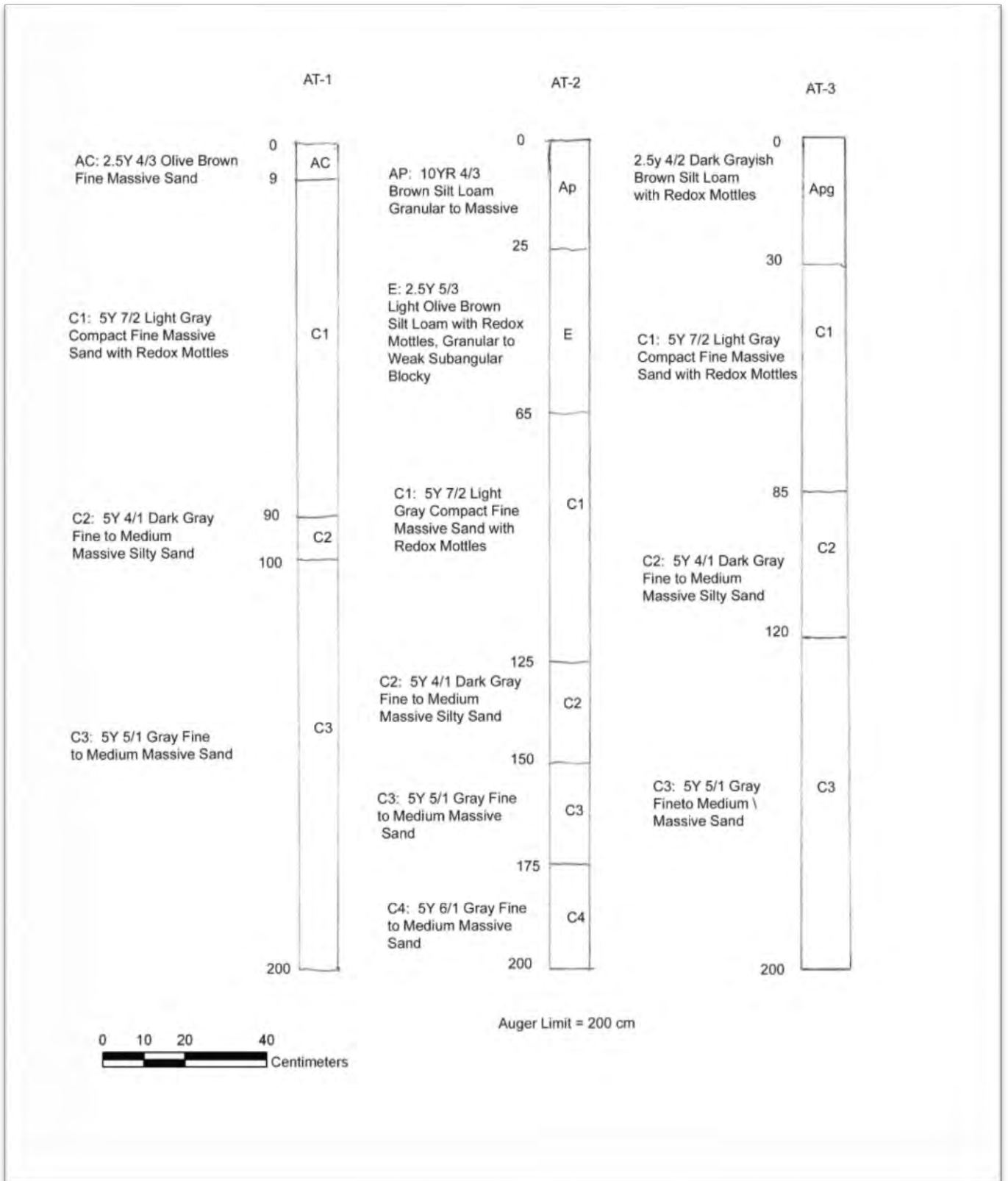


Figure A-2 Profiles of Auger Tests



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

December 3, 2013

Linda Kenney, PWS, CWB
Evergreen Environmental
558 Aspen Woods Drive
Yardley, PA 19067

Re: File No. ER 2014-0279-115-A
COE Section 404/401 & PADEP Dams
& Waterways (Chapter 105) Permits:
Hop Bottom Brook Wetland & Stream
Enhancement Project, State Route 2024
& Ainey Road, Brooklyn Twp.
Susquehanna Co.

Dear Ms. Kenney:

Thank you for submitting information concerning the above referenced project. The Bureau for Historic Preservation (the State Historic Preservation Office) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Archaeology

Based on an evaluation by our staff, there is a high probability that significant archaeological sites are located in this project area and could be adversely affected by project activities. Although there are no recorded archaeological sites within the project boundaries, the soil type, topographic setting, slope direction, and distance to water of the project area are similar to the settings of known archaeological sites in the vicinity. A Phase I archaeological survey of the project area is required to locate potentially significant archaeological resources. Guidelines and instructions for conducting Phase I surveys are available on our web site or from our office upon request.

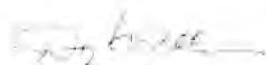
Historic Structures

In our opinion no historic buildings, structures, districts, or objects will be affected by this project.

Page 2
December 3, 2013
Linda Kenney, PWS, CWB

If you need further information in this matter please consult Steven McDougal at (717) 772-0923.

Sincerely,



Douglas C. McLearn, Chief
Division of Archaeology &
Protection

cc: COE, Baltimore District
DEP, Northcentral Regional Office

DCM/tmw



Linda Kenney

Biologist

215-493-1121 direct dial

267-266-1992 mobile phone

lkenney@evergreenenv.com

November 15, 2013

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
400 North Street, Second Floor
Harrisburg, PA 17120-0093

Re: Hop Bottom Brook
State Route 2024 & Ainey Road
Brooklyn Township, Susquehanna County, Pennsylvania

Dear Sir/Madam:

The subject site is located at the intersection of State Route 2024 and Ainey Road in Brooklyn Township, Susquehanna County, Pennsylvania (Figure 1). The subject site is approximately 29 acres in size. The subject site is a portion of the larger parcel identified as APN: 183.00-1-008.00-00. The subject site consists of agricultural land on relatively flat terrain. The site is surrounded by agricultural and residential land. No buildings are located within the project area boundary.

The subject site is proposed for a wetland and stream enhancement project. Site grading is not currently anticipated as part of this project.

We request information regarding potential archaeological resources within the subject site. If you have any questions on the enclosed materials or require any additional materials to make your determination, please feel free to contact us at (215) 493-1121.

Sincerely,

Linda Kenney, PWS, CWB

BHP Use Only
ER #

**Request to Initiate Consultation in Compliance with the State History Code and
Section 106 of the National Historic Preservation Act**

Applicant Information (print neatly, this will be used in the return envelope)			
Applicant Name	Linda Kenney –	Evergreen	
		Environmental	
Street Address	558 Aspen Woods Drive		
City	Yardley	Phone Number	215-493-1121
State/ZIP	PA	19067	

Contact Person to Receive Response (if applicable) (print neatly, this will be used in the return envelope)			
Name/Company	Linda Kenney	Evergreen	Lkenney@evergreenenv.com
		Environmental	
Street Address	558 Aspen Woods Drive		
City	Yardley	Phone Number	215-493-1121
State/ZIP	PA 19067	Fax Number	

Project Information			
Project Title	Hop Bottom Brook		
Project Location and/address	State Route 2024	Ainey Road	
Municipality	Brooklyn Township	County Name	Susquehanna
If this project was ever reviewed before, include previous ER #			

Project Type (Check all that apply)			
Will Your Project Be Government Funded/Sponsored or On Government Land?			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Agency and Program Name Below			
State Agency:	_____	Program:	_____
Federal Agency:	_____	Program:	_____
		Local/Other:	_____
Will Your Project Require Permits or Approvals?			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Specify Agency and/or Program Name Below			
Anticipated Permits:			
State Agency:	PADEP	Program:	Dams & Waterways (Chapter 105)
Federal Agency:	USACE	Program:	Section 404/401

Agency Office to Receive Copy of Response (Check all that apply)			
Army Corps of Engineers:	<input type="checkbox"/> Philadelphia	<input checked="" type="checkbox"/> Baltimore	<input type="checkbox"/> Pittsburgh
DEP Office:	<input type="checkbox"/> Central Office	<input checked="" type="checkbox"/> Regional Office:	North Central
<input type="checkbox"/> District Mining Office:	_____	<input type="checkbox"/> Oil & Gas Office:	_____
<input type="checkbox"/> Other: (provide address)	_____		

BHP Use Only
ER #

Required Project Information for BHP/SHPO Review

Total Acres in the property under review: 29

Total acres of earth disturbance for this proposed activity: Unknown at this time

Are there any buildings or structures within the project area? Yes No
Approximate age of buildings:

Project located in or adjacent to a historic district? Yes No Unsure

Name of Historic District _____

Submissions Must Also Include:

MAP LOCATION: A 7.5 USGS Map showing the project boundary and the Area of Potential Effect (APE). The APE should include indirect effects, such as visual and audible impacts. Federal Projects must provide an explanation of how the APE was determined.

PHOTOS: Photos of all buildings or structures in the APE. If the property is over 50 years old submit a Historic Resource Survey Form with this initial request. The forms are available at <http://www.phmc.state.pa.us/bhp>, under "Forms and Guidance" link.

PROJECT DESCRIPTION NARRATIVE: Provide a detailed project description describing the project, any ground disturbance, any previous land use, and age of all effected buildings in the project area. Attach a site map showing the location of all buildings in the project area.

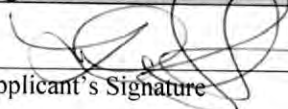
I have reviewed all DEP Permit Exemptions listed on the DEP website www.dep.state.pa.us.

In addition, federal agencies must provide:

- Measures that will be taken to identify consulting parties including Native Americans.
- Measures that will be taken to notify and involve the public.

The information on this form is needed to determine whether potential historic or archaeological resources are present. Additional historic information or investigation may be requested to determine the significance of the resources or the effects of the project on those resources. Form and attachments must be submitted by mail. Submissions via e-mail will not be accepted.

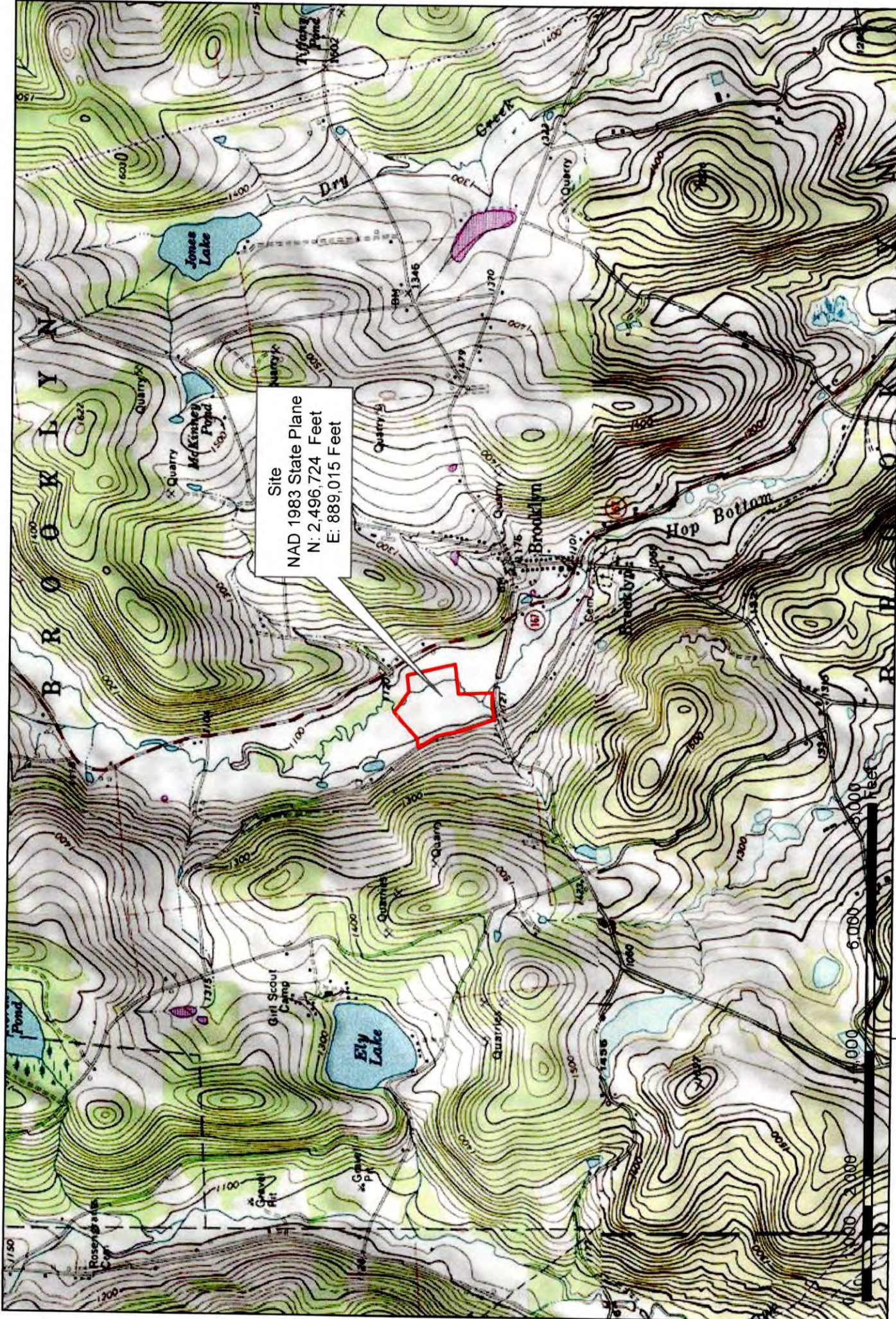
Signature Block

 _____
Applicant's Signature

11/15/13
Date

Please Print and Mail Completed Form and Required Information to:

**PA Historical & Museum Commission
Bureau for Historic Preservation
400 North Street
Commonwealth Keystone Building 2nd Floor
Harrisburg, PA 17120-0093**



Site
 NAD 1983 State Plane
 N: 2,496,724 Feet
 E: 889,015 Feet

Montrose USGS Quadrangle Map



APN: 183.00-1-008.00-00
 Brooklyn Township, Susquehanna County, PA



Job No.: T1505.003
 Scale: 1 in = 2,000 ft
 Date: 11/15/2013
 Drawn By: KW

This map was developed using Geographic Information Systems Digital Data. This map is for visual display purposes only and all locations are approximate.

EXHIBIT D

**PROJECTED WETLAND COMPENSATION
VALUE ESTIMATES**

Evergreen Hop Bottom Creek Mitigation Bank USACE Credit Ratio Analysis

Category	Acres	Ratio	Credits
Wetland Re-establishment	0.8	1 : 1	0.8
Wetland Rehabilitation	8.80	1 : 1.5	5.87
Wetland Enhancement	9.10	1 : 2.5	3.64
Wetland Zone of Influence Enhancement	1.60	1 : 2.5	0.64
TOTAL	20.30		10.15

EXHIBIT E

**PROJECTED STREAM COMPENSATION VALUE
ESTIMATES**

Evergreen Hop Bottom Creek Mitigation Bank Stream Mitigation Credit Analysis

Activity	Length (feet)	Length Credit Ratio⁽³⁾	Acreage	Acreage Credit Ratio⁽⁴⁾	Credit
Riparian Buffer Enhancement ⁽¹⁾	1546	NA	7.1	82.764	588
StreamBank Enhancement ⁽²⁾	2300	0.09	NA	NA	207
			Total Stream Credit		795
1) Heavy planting (400 stems/acre or more) within 100 feet on both sides of stream. 2) Live stakes installed on both banks along 1,150 feet of stream channel. 3) Ratio indicates credits per linear foot of stream activity. 4) Ratio indicates credits per acre planted within 100 feet of stream channel.					

EXHIBIT F

SITE PHOTOGRAPHS



Photo 1: Southern view of mitigation site at northeastern corner.



Photo 2: Northern view of oxbow at eastern portion of mitigation site.



Photo 3: Eastern view of cattail area within eastern portion of mitigation site.



Photo 4: Western view of upland area at MW1.



Photo 5: Northwestern view of wetland area at western side of mitigation site.



Photo 6: Western view of upland area at MW5.



Photo 7: Southern view of Hop Bottom Creek at central portion of mitigation site.

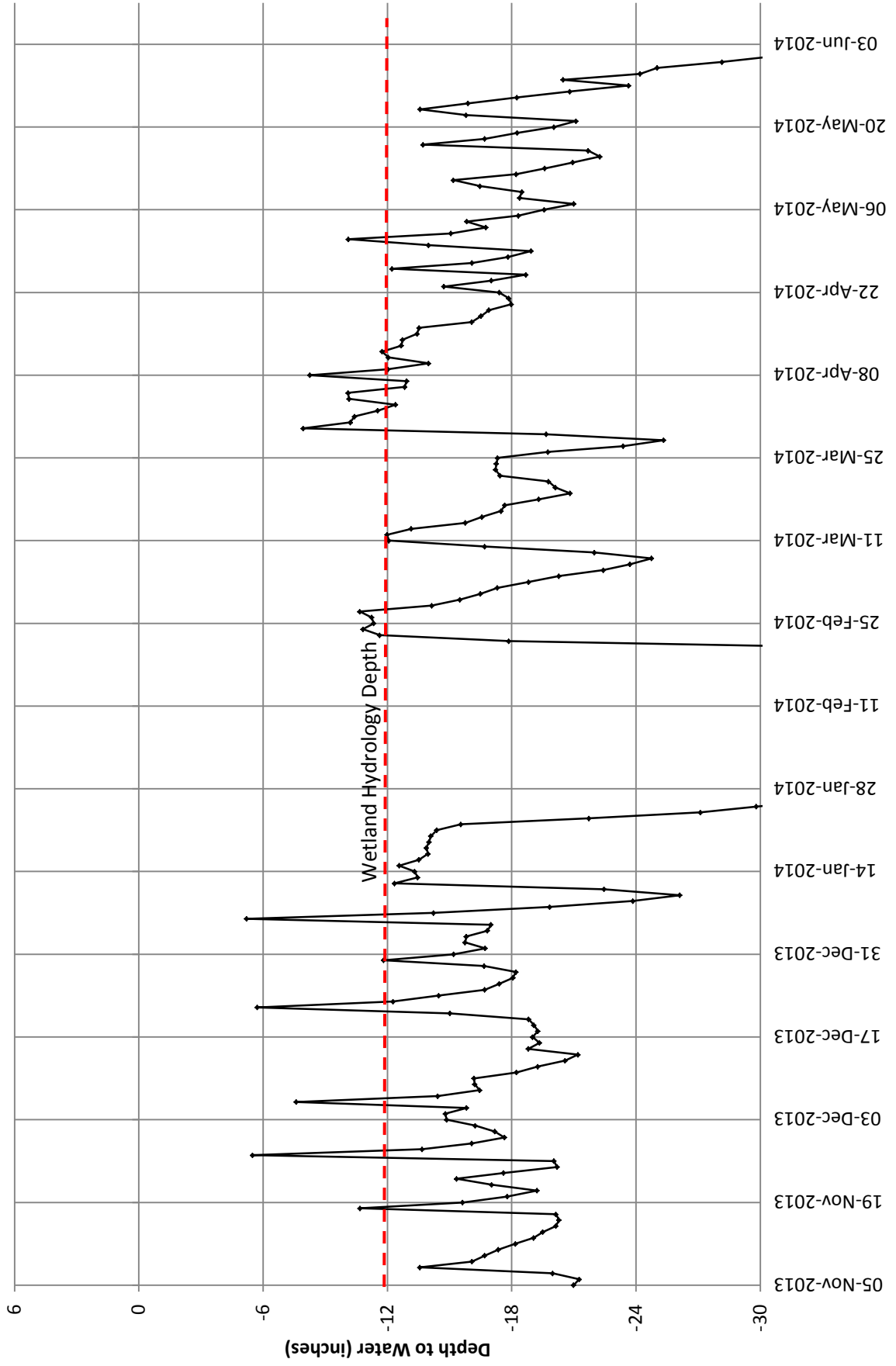


Photo 8: Northern view of upland area at MW 2 & 3 at north western portion of mitigation site.

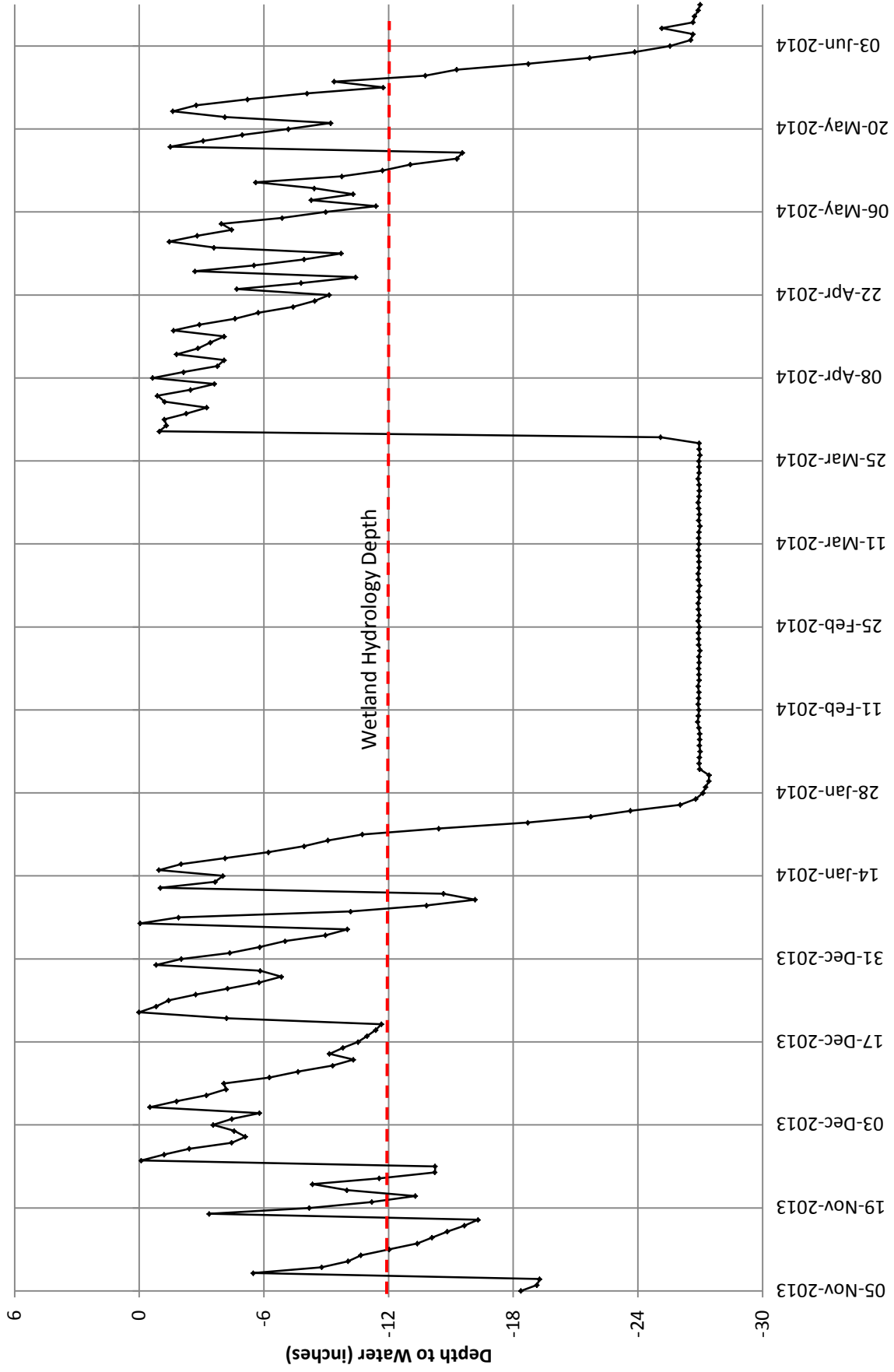
EXHIBIT G

MONITORING WELL HYDROGRAPHS

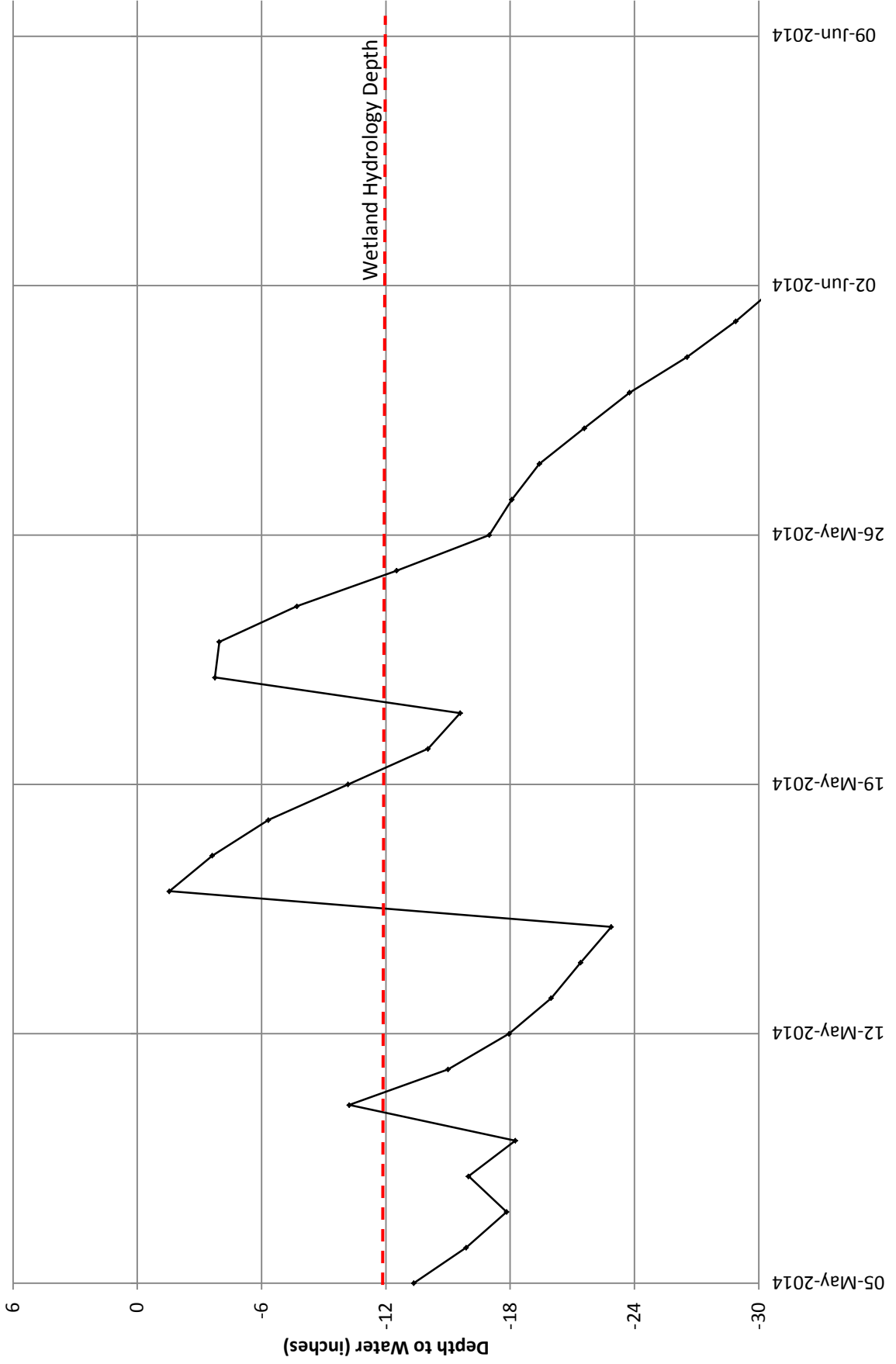
Hop Bottom Mitigation Bank WELL 1



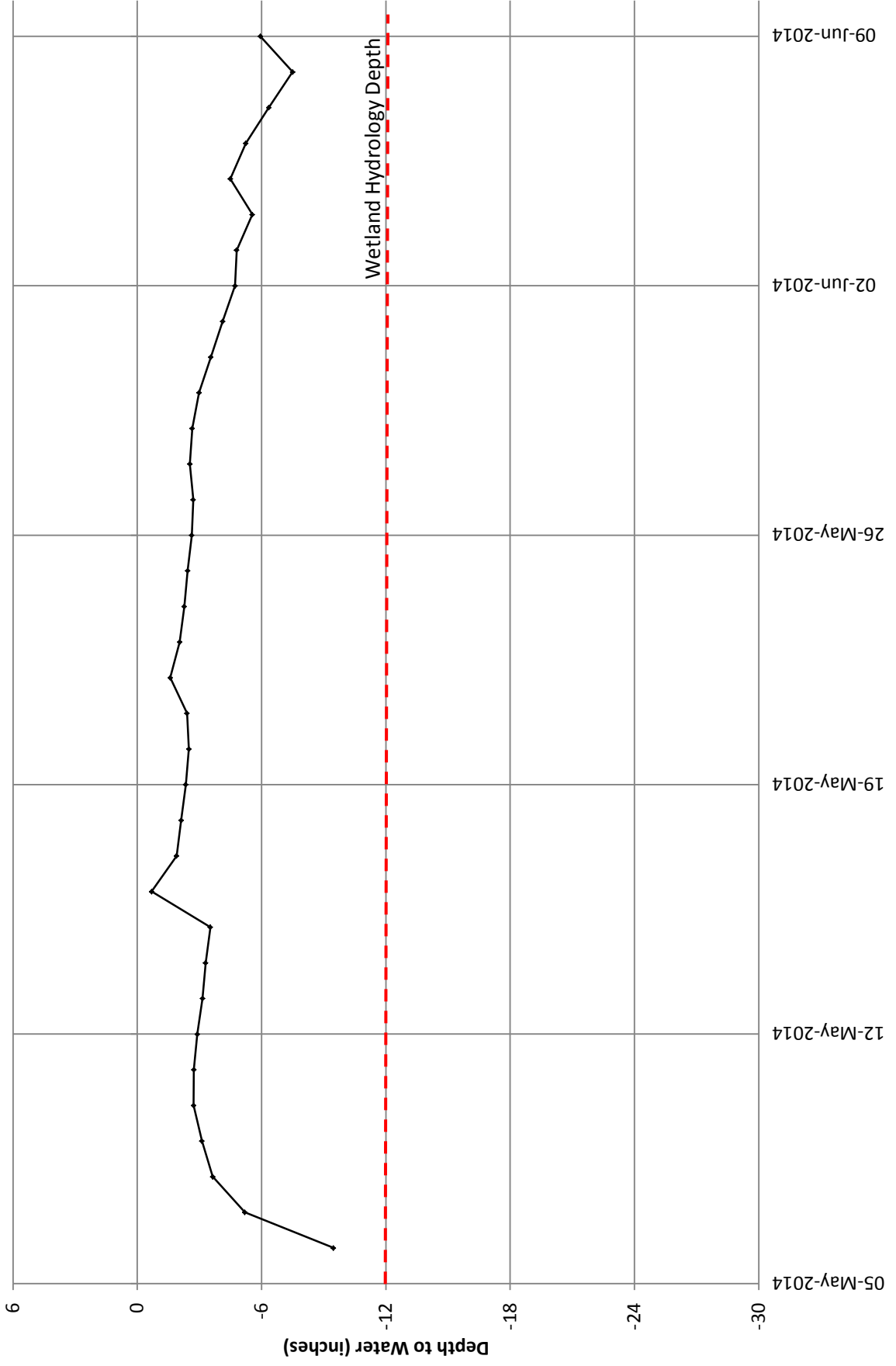
Hop Bottom Mitigation Bank WELL 2



Hop Bottom Mitigation Bank WELL 3



Hop Bottom Mitigation Bank WELL 4



Hop Bottom Mitigation Bank WELL 5

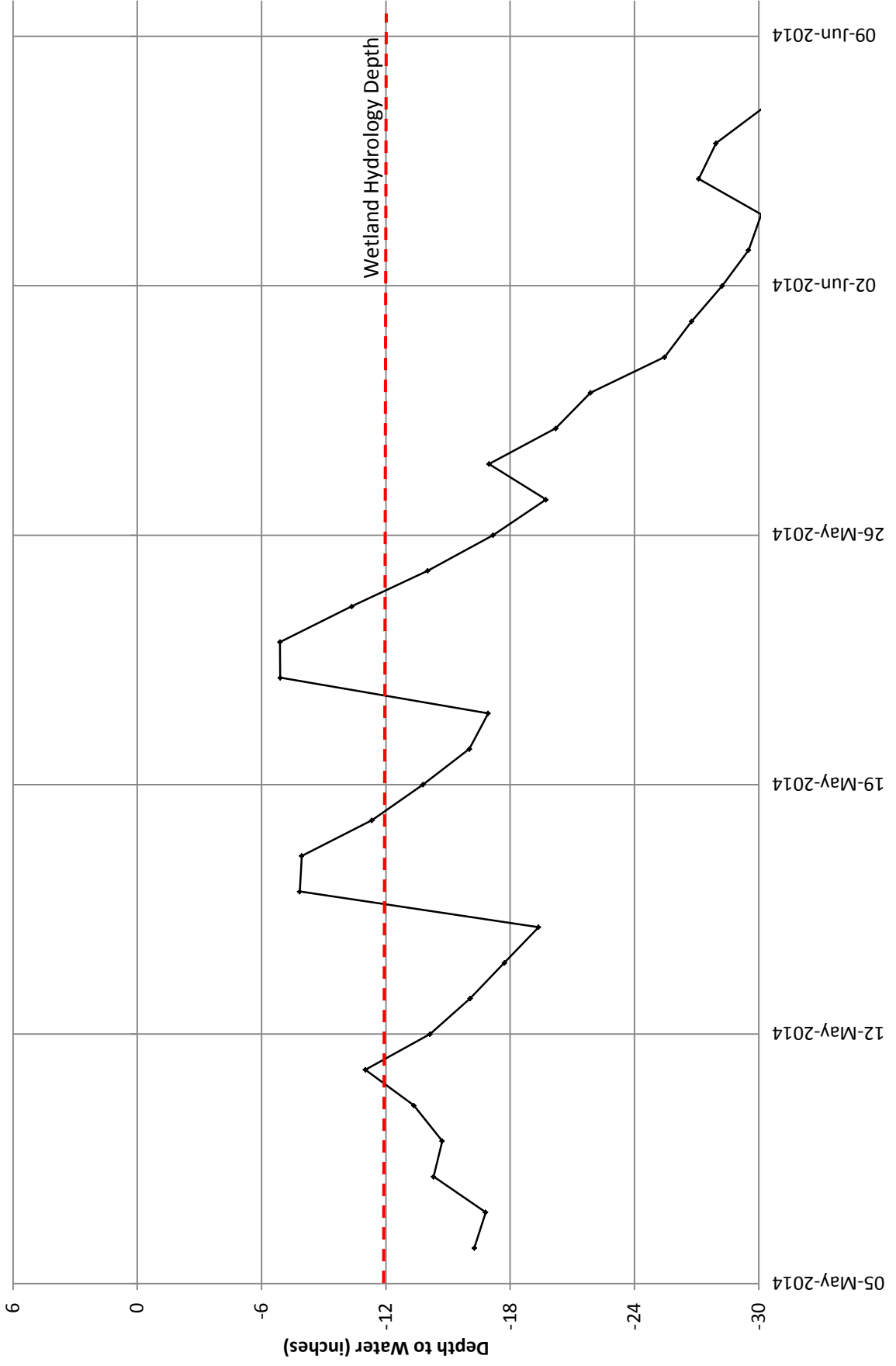


EXHIBIT H

**PRELIMINARY JURISDICTIONAL
DETERMINATION**



DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
TIOGA-HAMMOND AND COWANESQUE FIELD OFFICE
710 IVES RUN LANE
TIOGA, PA 16946-8643

August 25, 2014

Mr. James Ingram
Evergreen Environmental, LLC
425 Darby Paoli Pike
Wayne, PA 19087

Dear Mr. Ingram:

This is in response to the wetlands delineation package dated July 11, 2014, and received by this office on July 15, 2014, sent on your behalf by Ms. Linda Kenney of Evergreen Environmental, LLC, requesting a jurisdictional determination for a property identified as the Hop Bottom Creek Mitigation Site, encompassing approximately 28.9 acres, located in Brooklyn Township, Susquehanna County, Pennsylvania. The project has been identified as CENAB-OP-RPA-2014-01700-P25 (Evergreen Environmental, LLC/ Hop Bottom Creek Mitigation Site/Pre-Application/JD).

A field inspection was conducted on July 23, 2014 by representatives of this office for the purpose of issuing a preliminary jurisdictional determination. Based on the information you have submitted and the field inspection, it has been determined that the map prepared by Evergreen Environmental, LLC, entitled: "Wetland Delineation, Hop Bottom Creek Mitigation Site", dated June 2014, last revision date of July 29, 2014 depicts the extent of waters and/or wetlands within the defined Area of Review/Study Area (Enclosure 1). These areas "may be" waters of the United States, including federally regulated wetlands, and may be regulated by this office pursuant to Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899.

This preliminary jurisdictional determination is based on the information included on the enclosed Preliminary Jurisdictional Determination Form (Enclosure 2) and cannot be appealed. Please refer to the Notification of Administrative Appeal Options and Process and Request for Appeal form for your administrative appeal options (Enclosure 3). If you do not agree with the extent of waters and/or wetlands and this preliminary JD, you are hereby advised of your option to request and obtain an approved JD from this office at the address above. An approved JD is an official, written Corps determination stating the presence or absence of jurisdictional waters of the United States and identifies the limits of waters of the United States on a project site. An approved JD can be relied upon for a period of 5 years and can be appealed through the Corps' administrative appeal process set out at 33 CFR Part 331.

You are reminded that any grading or filling of waters of the United States, including wetlands, is subject to Department of the Army authorization. State and local authorizations may be required to conduct activities in these locations. Wetlands under

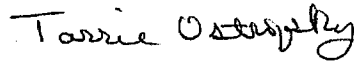
the jurisdiction of the Pennsylvania Department of Environmental Protection may be located on the parcel. You may contact the Pennsylvania Department of Environmental Protection for information regarding jurisdiction and permitting requirements at (570) 826-2511. In addition, the Interstate Land Sales Full Disclosure Act may require that prospective buyers be made aware, by the seller, of the Federal authority over any waters of the United States, including wetlands, being purchased.

In future correspondence and permit applications regarding this area of review please include the file number located in the first paragraph of this letter.

A copy of this letter has been sent to the Pennsylvania Department of Environmental Protection Northeast Regional Office, the Susquehanna County Conservation District Office, and Evergreen Environmental, for informational purposes.

If you have any questions concerning this matter, please contact me at (570) 835-4263 or at Tarrie.L.Ostrosky@usace.army.mil.

Sincerely,



Tarrie Ostrosky
Project Manager, Pennsylvania Section
Regulatory Branch

Enclosures

To identify how we can better serve you, we need your help. Please take the time to fill out our new customer service survey at:
<http://www.nab.usace.army.mil/Missions/Regulatory.aspx>



Notes:

1. Coordinates for each wetland flag were obtained using a handheld Global Positioning System (GPS), with differential correction (Thales Mobile Mapper, now manufactured by Magellan). Data was post-processed using nearby reference stations located in Towanda, Pennsylvania and Binghamton, New York.
2. Contours obtained from: Pennsylvania Department of Education and Natural Resources, PAMAP 2-foot LiDAR contours. Available at: <http://www.pasda.psu.edu>.
3. Aerial photography dated April 17, 2008 (Source: <http://earthexplorer.usgs.gov/>)
4. Wetland boundary was field verified by Corps of Engineers on July 23, 2014.

Legend:

- Monitoring Well / Data Plot
- Data Plot
- Wetland Flag Number
- Wetland Boundary
- Palustrine Emergent Wetland
- Riverine, lower perennial, mud bottom



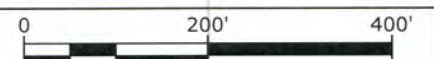
Wetland Delineation
HOP BOTTOM CREEK MITIGATION SITE
 APN: 183.00-1-008.00-000
 Brooklyn Township

Susquehanna County

Pennsylvania

EXHIBIT -

Date: July 29, 2014



ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): July 24, 2014

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Mr. James Ingram
Evergreen Environmental, LLC
425 Darby Paoli Pike
Wayne, PA 19087
610-429-4997 / Jingram@evergreenenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAB-OP-RPA-2014-01700-P25
(Evergreen Environmental, LLC/Hop Bottom Creek Mitigation Site/Pre-Application/JD)

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: Property encompasses approximately 28.9 acres and is located in south central Susquehanna County, Pennsylvania, 0.5 miles west, northwest of Brooklyn, Pennsylvania.

State: Pennsylvania County/Township: Susquehanna/Brooklyn City: Brooklyn

Center coordinates of site (lat/long in degree decimal format):

Lat. 41.7557°.N, Long. -75.8138°.W.

Universal Transverse Mercator: Easting 432346, Northing 4622972, UTM Zone 18T

Name of nearest waterbody: Hop Bottom Creek

Identify (estimate) amount of waters in the review area: See attached table.

Non-wetland waters: 1,548 linear feet: 20-30 width (ft) and/or 1.21 acres.

Cowardin Class: Riverine
Stream Flow: Perennial

Wetlands: 24.15 acres.

Cowardin Class: Emergent

Name of any water bodies on the site that have been identified as Section 10 waters: N/A

Tidal: NA

Non-Tidal: NA

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s): July 23, 2014

ENCLOSURE 2

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Evergreen Environmental, LLC.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps. 02050106 and 020501061205
- U.S. Geological Survey map(s). Cite scale & quad name: 1:2000 scale, Montrose East, Pennsylvania.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey, Susquehanna County, Pennsylvania.
- National wetlands inventory map(s). Cite name: USFWS Wetlands Mapper.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps: FM42115C0265C and FM42115C0270C.
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): 2008.
or Other (Name & Date): Photographs included with the Wetlands Report, dated July 2014, and photos taken during the July 23, 2014 site visit.
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Tarrice Ostroffsky

Signature and date of
Regulatory Project Manager

Signature and date of
person requesting preliminary JD

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
1	41.756739	-75.812967	PEM - East Side of Hop Bottom Creek	5.64 acres	Section 404 – Non-Tidal Wetland
2	41.756497	-75.815508	PEM - West Side of Hop Bottom Creek	18.51 acres	Section 404 - Non-Tidal Wetland
3	41.758181	-75.813881	Riverine (Hop Bottom Creek)	1,548 linear feet (1.21 acres)	Section 404 – Non-Tidal Stream

**NOTIFICATION OF ADMINISTRATIVE APPEAL (OPTIONS AND PROCEDURES AND
REQUEST FOR APPEAL (CENAD-PD-PSD-O))**

Applicant: Mr. James Ingram, Evergreen Environmental, LLC		File Number: 2014-01700-P25	Date: 7/24/2014
Attached is:			See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)		B
<input type="checkbox"/>	PERMIT DENIAL		C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION		D
<input checked="" type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/ccwo/reg/or> Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the Baltimore District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the Baltimore District Engineer. Your objections must be received by the Baltimore District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the Baltimore District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the Baltimore District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the Baltimore District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Baltimore District Engineer.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Baltimore District Engineer.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Baltimore District Engineer.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Ms. Sandy Zelen
U.S. Army Corps of Engineers, Baltimore District
ATTN: CENAB-OP-R
Regulatory Branch, Baltimore District
Baltimore, MD 21203-1715
(410) 962-6028 or 3670

If you only have questions regarding the appeal process you may also contact:

Mr. Michael G. Vissichelli
Administrative Appeals Review Officer
North Atlantic Division, Corps of Engineers Fort Hamilton
General Lee Avenue, Military Community Bldg. 301
Brooklyn, NY 11252-6700
Telephone: (718) 765-7163
Email: Michael.G.Vissichelli2@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

EXHIBIT I

SAMPLE LEGAL INSTRUMENTS

SAMPLE DECLARATION OF RESTRICTIVE COVENANT FOR CONSERVATION

This DECLARATION OF RESTRICTIVE COVENANTS FOR CONSERVATION relates to an ecological enhancement and restoration project (hereinafter, this "Declaration") is made and entered into as of _____, 20__ by _____ ("Grantor").

RECITALS

WHEREAS, Grantor owns in fee simple certain real estate located in _____ County liber and folio reference _____ consisting of _____ acres, more or less, as described more specifically in Exhibit _ hereto (the "Property"); and

WHEREAS, the Grantor has agreed to make a ___ acre portion of the Property, delineated in Exhibit A_ attached hereto, where certain aquatic resources exist or may be created and/or enhanced (the "Conservation Area"), subject to this Declaration whose legal description is attached hereto as Exhibit _; and

WHEREAS, Evergreen Environmental, LLC ("Evergreen") entered into the Pennsylvania Statewide Umbrella Mitigation Banking Instrument (the "PSUMBI") between: Evergreen (the "Sponsor") and the Interagency Review Team (the "IRT") which consists of [the U.S. Army Corps of Engineers ("USACE" or "Corps") Baltimore, Philadelphia, and Pittsburgh Districts, the U.S. Environmental Protection Agency ("EPA"), the U.S. Fish and Wildlife Service ("FWS"), the U.S.D.A. Natural Resources Conservation Service ("NRCS"), the NOAA-National Marine Fisheries Service "NMFS"), the Pennsylvania Department of Environmental Protection ("PADEP"), the Pennsylvania Game Commission ("PGC"), the Pennsylvania Historical commission ("PHMC"), and the Pennsylvania Fish and Boat Commission ("PFBC"); and

WHEREAS, the Grantor agrees to the creation of the Conservation Area described herein and intends that the Conservation Area shall be preserved and maintained in perpetuity in an enhanced and/or natural condition, which condition will include functioning wetlands; and

WHEREAS, the Grantor(s) desire(s) to comply with the conditions of the PSUMBI by imposing this Site Protection Instrument on a Conservation Area within the Property; and

WHEREAS, under Federal and State law, the Corps has issued Permit No. _____ and the PADEP has issued Permit No. _____ (collectively, the "Permits") for impacts to waters of the United States and/or the Commonwealth of Pennsylvania expected to result from the creation of the self-sustaining natural aquatic system located on the Conservation Area; and

WHEREAS, the Grantor agrees and acknowledges that this Declaration, including the rights authorized to Grantor herein, shall be assignable and transferrable to Grantor's subsequent heirs, successors, and assigns.

NOW, THEREFORE, for good and valuable consideration and in consideration of the mutually held interests in enhancement and preservation of the environment, as well as the terms, conditions, and restrictions contained herein, and pursuant to the laws of the Commonwealth of Pennsylvania, Grantor does agree to the following terms and conditions:

A. PURPOSE

The purpose of this Declaration is:

- (1) To preserve, protect, and enhance the native flora, fauna, soils, water table, aquifer, drainage patterns, wetland resources and other related environmental functions and values of the Conservation Area;
- (2) To maintain the natural view shed of the Conservation Area in its native, enhanced, scenic and open condition;
- (3) To assure that the Conservation Area, including its air space, streams and other aquatic resources on or beneath the Conservation Area, and including, but not limited to, subsurface aquifers, springs, and the water table, will be maintained in perpetuity in its natural condition, as that may be enhanced, as provided herein; and
- (4) To prevent any use of the Conservation Area that threatens to or will impair, interfere with, or otherwise negatively affect its natural resource functions and values. Grantor intends and agrees that this Declaration will confine the use of the Conservation Area to such activities as are consistent with the purposes set forth herein.

B. ACCESS

In order to achieve the purposes of this Declaration, the following rights are created in accordance with Pennsylvania law [for government entities, use PA Statutes, Title 32, §§ 5051-5059.]:

- (1) The Grantor shall have the right and acknowledges the right of the Sponsor, the Corps, the PADEP and other government agencies to enter upon the Property to inspect the Conservation Area at reasonable times to monitor compliance with this Declaration. Except in cases of a threat of a physical or public safety emergency, such entry shall, when practicable, be upon reasonable prior notice to Grantor or its successors and assigns, and such entry shall not unreasonably interfere with the Grantor's or its successors' and assigns' use and quiet enjoyment of the Property.
- (2) The Grantor shall have the right to enter upon the Property to access the Conservation Area at reasonable times, upon prior notice to the property owner; and upon notice and written approval by the USACE may take

appropriate environmental or conservation management measures within the Conservation Area consistent with the terms and purposes of this Declaration, including, but not limited to:

(a) planting of native vegetation (i.e. trees, shrubs, grasses, and forbs);
and

(b) restoring, altering or maintaining the topography, hydrology, drainage, structural integrity, streambed(s), streambank(s), water quantity, water quality, any relevant feature of a stream, wetland, water body, or vegetative buffer within the Conservation Area.

(3) The Grantor, the Sponsor, the Corps and other government agencies with appropriate legal authority shall each have the right to enforce the terms of this Declaration by appropriate legal proceedings [for government entities, use PA Statutes, Title 32, §§ 5051-5059.] in accordance with applicable law so as to prevent any activity on or use of the Property that is inconsistent with the purposes of this Declaration and to require the restoration of such areas or features of the Conservation Area that may be impaired or damaged by an inconsistent activity or use.

C. DURATION

This Declaration shall remain in effect in perpetuity, shall run with the land regardless of ownership or use, and is binding upon and shall inure to the benefit of the Grantor's heirs, executors, administrators, successors, representatives, devisees, and assigns, as the case may be, as long as said party shall have any interest in any portion(s) of the Conservation Area.

D. PERMITTED USES

This Declaration will not prevent the Grantor, or any subsequent owner of the Property and/or portions of the Property, from making use of the area(s) outside of the Conservation Area or from uses that are consistent with the purposes of this Declaration.

E. RESTRICTIONS

Any activity in or use of the Conservation Area that is inconsistent with the purposes of this Declaration by the Grantor; subsequent property owner(s); and the personal representatives, heirs, successors, and assigns of either the Grantor or subsequent property owner(s), is prohibited. Without limiting the generality of the foregoing, and except when an approved purpose under B.(2) above, or as necessary to accomplish mitigation approved under the any permit(s) reliant upon this Declaration, the following activities and uses are expressly prohibited in, on, over, or under the Conservation Area, subject to the express terms and conditions below:

(1) **Structures.** The construction of man-made structures including, but not limited to, the construction, removal, placement, preservation, maintenance or

alteration of any buildings, roads, utility lines, billboards, or other advertising. This restriction does not include deer stands, bat boxes, bird nesting boxes, bird feeders, duck blinds, and the placement of signs for safety purposes or boundary demarcation.

- (2) **Demolition.** The demolition of fencing structures constructed by the Sponsor for the purpose of demarcation of the Conservation Area or for public safety.
- (3) **Soils.** The removal, excavation, disturbance, or dredging of soil, sand, peat, gravel, or aggregate material of any kind; or any change in the topography of the land, including any discharges of dredged or fill material, ditching, extraction, drilling, driving of piles, mining or excavation of any kind.
- (4) **Drainage.** The drainage or disturbance of any aquifer, the surface water level or the water table, except for pre-existing or approved project-related stormwater discharges and any maintenance associated with those stormwater discharges. All pre-existing or approved project-related drainage/stormwater discharge features should be shown on the accompanying plat map or approved plan and attached to this Declaration as Exhibit _.
- (5) **Waste or Debris.** The storage, dumping, depositing, abandoning, discharging, or releasing of any gaseous, liquid, solid, or hazardous waste substance, materials or debris of whatever nature on, in, over, or underground or into surface or ground water, except for pre-existing or approved project related stormwater discharges, and any maintenance associated with those stormwater discharges.
- (6) **Non-Native Species.** The planting or introduction of non-native or invasive species.
- (7) **Herbicides, Insecticides, and Pesticides.** The use of herbicides, insecticides, pesticides, or other chemicals, except for as may be necessary to control invasive species that threaten the natural character of the Conservation Area. State-approved municipal application programs necessary to protect public health and welfare are not included in this prohibition.
- (8) **Removal of Vegetation.** The mowing, cutting, pruning, removal; disturbance, destruction, or collection of any trees, shrubs, or other vegetation, except for pruning, cutting or removal for:
 - a) safety; or
 - b) control in accordance with accepted scientific forestry management practices for diseased or dead vegetation; or
 - c) control of non-native species and noxious weeds; or
 - d) scientific nature study.

- (9) **Agricultural Activities.** Unless currently used for agricultural or similarly related purposes, the conversion of, or expansion into, any portion of the Conservation Area for use of agricultural, horticultural, aquacultural, silvicultural, livestock production or grazing activities. This prohibition also includes conversion from one type of these activities to another (e.g. from agricultural to silvicultural).

[NOTE: The following language should be added, as appropriate for projects in designated bog turtle counties: Corps approved management practices, including the introduction of livestock, for the purpose of maintaining bog turtle habitat, are not included in this prohibition.]

- (10) **Subdivision of Conservation Area.** Subdivision of real property within the Conservation Area into multiple parcels.
- (11) **Other.** Other acts, uses, excavation, or discharges, which adversely affect fish or wildlife habitat or the preservation of lands, waterways, or other aquatic resources mentioned herein within the Conservation Area.

F. INSPECTION, ENFORCEMENT AND ACCESS RIGHTS

As set forth in Section B, above, the Grantor, Sponsor, Corps, PADEP, and authorized regulatory entities have the right to enter the Property to observe the Conservation Area and to take actions necessary to verify compliance with and to enforce this Declaration. When practicable, such entry shall be upon prior reasonable notice to the property owner. The grantor grants to the Corps, the U.S. Department of Justice, and/or the PADEP, a discretionary right to enforce this Declaration in a judicial action against any person(s) or other entity(ies) violating or attempting to violate these restrictive covenants. No violation of this Declaration shall result in a forfeiture or reversion of title. In any enforcement action, an enforcing agency shall be entitled to a complete restoration for any violation, as well as other judicial remedies such as civil penalties. Nothing herein shall be interpreted to limit the right of the Corps or PADEP to modify, suspend, or revoke any permit issued or authorized by the Corps or PADEP.

G. RECORDING AND EXECUTION BY PARTIES

Within thirty (30) calendar days of execution of this Agreement, the Grantor shall record this Declaration in the _____ County office where land records are retained. Further, if anticipated activities in the Conservation Area are agreed upon for future phases of the site, as set forth in Section I (Reserved Rights) herein, the Grantor or Sponsor must submit plans to the Corps and PADEP for review and approval prior to any work in the Conservation Area.

H. NOTICE OF TRANSFER OF PROPERTY INTERESTS

No transfer of the rights set forth in this Declaration, or of any other property interests pertaining to the Conservation Area or the underlying property it occupies, shall occur without sixty (60) calendar days' prior written notice to the Sponsor, Corps and PADEP.

I. RESERVED RIGHTS

- (1) The Grantor and any holders of declarations or other property rights for the operation and maintenance of pre-existing or project-related structures or infrastructure such as roads, utilities, drainage ditches, or stormwater facilities that are present on, over, or under the Conservation Area reserve the right, within the terms and conditions of their permits, their agreements, and the law, to continue with such operation and maintenance. All pre-existing or approved project-related structures or infrastructure, if any, shall be shown on the accompanying plat map or approved plan and attached to this Declaration as Exhibit _.
- (2) If an authorized project requires any related or unanticipated infrastructure modifications, utility relocation, drainage ditches, or stormwater controls within the identified Conservation Area, or if a situation requires measures to remove threat to life or property within the identified Conservation Area, said activities must be approved in writing by the Corps and PADEP subject to terms and conditions set forth in the written approval. Approval is subject to the Corps and PADEP discretion. If approved, said activities must be identified on an amended Exhibit _ and must be recorded and specifically noted as an "amendment" and copies of the recorded Amended Exhibit _ must be provided to the Corps and PADEP within sixty (60) days of Corps approval. Approval of said activity by the Corps is in addition to any Clean Water Act, Section 404 permit, or other authorization, which may be required in order to legally implement said activity. The Grantor and Evergreen accept the obligation to place any other and/or subsequent responsible party on reasonable prior notice of their need to request such Corps approval.

J. SEVERABILITY

If any portion of this Declaration, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

K. MODIFICATIONS

The restrictions contained in this Declaration are required by the Department of the Army Permit and/or Mitigation Banking Instrument and /or Mitigation Plan, a copy of which is attached hereto and incorporated by reference. There shall be no changes or alterations to the provisions in this Declaration without prior written approval from the appropriate District Commander of the Corps and PADEP. The Corps and PADEP shall be provided with a 60-day advance written notice of any legal action concerning this Declaration or of any action to extinguish, void, or modify this Declaration in whole or in part, including transfer of title to, or establishment of any other legal claims over, the Property. This Declaration is intended to survive foreclosure, bankruptcy, condemnation, or judgments affecting the Property.

L. MITIGATION

If the work required by a mitigation plan, including maintenance or remedial work, under the Corps permit for the project, occurs within the Conservation Area, then the Sponsor is allowed to construct and undertake the mitigation work in accordance with an authorized mitigation plan, a copy of which is attached hereto and incorporated by reference.

M. COAL RIGHTS NOTICE

The following notice is given to and accepted by Grantor for the purpose and with the intention of compliance with the requirements of the Pennsylvania Conservation and Preservation Declarations Act. Nothing herein shall imply the presence or absence of workable coal seams or the severance of coal interests from the Property.

NOTICE: This Declaration may impair the development of coal interests including workable coal seams or coal interests which have been severed from the Property.

[THE REMAINDER OF THIS PAGE IS LEFT INTENTIONALLY BLANK]

SAMPLE CONSERVATION EASEMENT

THIS CONSERVATION EASEMENT made this ____ day of ____ 20__, by [**NAME OF GRANTING LANDOWNER**](hereinafter "Grantor");

WITNESSETH:

WHEREAS, Grantor is the fee simple owner of certain tracts of land located in _____ and being [**USE IF APPLICABLE: a portion of**] the property conveyed to the Grantor by deed recorded in deed book [*insert LIBER FOLIO reference here*] in the land records of _____ County, _____, more particularly described in Exhibit(s) attached hereto and incorporated by reference, hereinafter referred to as the "Property"; and

*[**NOTE TO GRANTOR: The Grantor shall prepare and attach a legal description (i.e. metes and bounds of the Property, and if less than the whole property, also include a separate, clearly identifiable, legal description of the Conservation Area, all in an exhibit identified as "Exhibit _" to the Conservation Easement. In addition, the Grantor will include an Exhibit _ that shall be a scaled drawing of the area subject to the Conservation Easement. The restricted area shall be clearly labeled on the plan as "Conservation Area" and be clearly identified by crosshatching and shading. The Grantor shall also include on the drawing the location and extent of all known, pre-existing easements, rights of ways, utilities, drainage ditches, stormwater facilities, cattle crossings, and structures. For each such item that involves on-going or periodic operation and maintenance, a description of all anticipated and authorized maintenance work and the work boundaries for each item shall also be included. If the legal description(s) and drawing(s) can be legibly included on one exhibit, and whereas clause above for this instrument may be written to describe all of these are one exhibit. (i.e., "...more particularly described and shown in Exhibit _, attached hereto...") A copy of the permit and/or PSUMBI and/or mitigation plan must be attached to the document for recordation.]*

WHEREAS, [Grantor(s)/Sponsor] entered into the Pennsylvania Statewide Umbrella Mitigation Banking Instrument (the "EPSUMBI") between: the _____ (the "Bank" or the "Bank Sponsor") and the Interagency Review Team (the "IRT") which consists of [list members]; dated _____, 20__; and

WHEREAS, Appendix [xx] of the PSUMBI is a Mitigation Plan governing the Conservation Area on the Property; WHEREAS, pursuant to the PSUMBI, [Grantor/Sponsor] proposes to create, maintain, and preserve a self-sustaining natural aquatic system located on the Conservation Area; and

WHEREAS, the PSUMBI requires that this Easement be executed and recorded in order that the Conservation Area shall remain substantially in its natural condition forever; and

WHEREAS, the Grantor(s) desire(s) to comply with the conditions of the PSUMBI by imposing this easement on a Conservation Area within the Property; and

WHEREAS, the Conservation Area may contain land, functions, values, and services that serve as compensation and mitigation for impacts to Waters of the U.S. and/or waters of the State that were permitted by the Corps and/or PADEP; and

WHEREAS, under Federal and State law, the U.S. Army Corps of Engineers (the "Corps") has issued Permit No. _____ and the Pennsylvania Department of Environmental Protection ("PADEP") has issued Permit No. _____ (collectively, the "Permits") for impacts to waters of the United States and/or the Commonwealth of Pennsylvania expected to result from the creation of the self-sustaining natural aquatic system located on the Conservation Area; and"

WHEREAS, because the Conservation Area may serve as compensation for such above referenced impacts, the Corps and PADEP are third-party beneficiaries under this Easement.

WHEREAS, the Grantor and the Holder agrees to the creation of these conservation based covenants and intends the Conservation Area shall be preserved and maintained in a natural condition in perpetuity;

NOW, THEREFORE, in consideration of the mutually-held interests in preservation of the environment, as well as the terms, conditions, and restrictions contained herein, and pursuant to the laws of the Commonwealth of Pennsylvania, Grantor does agree to the following terms and conditions:

1. PURPOSE

The purpose of this Conservation Easement is:

To preserve and protect the native flora, fauna, soils, water table and drainage patterns, and other conservation values of the Conservation Area;

To view the Conservation Area in its scenic and open condition; and in general,

To assure that the Conservation Area, including its air space and subsurface, will be retained in perpetuity in its natural condition as provided herein and to prevent any use of the Conservation Area that will impair or interfere with its natural resource functions and values. Grantor intends that this Conservation Easement will confine the use of the Conservation Area to such activities as are consistent with the purpose of this Conservation Easement.

To accomplish the purpose of this Conservation Easement, the following rights are created in accordance with **[FOR GOVERNMENT ENTITIES, USE: Pennsylvania Statutes, Title 32, §§ 5051-5059] [FOR ALL OTHER, USE: Pennsylvania common law]**:

A. To allow the Grantor, the Holder, the Corps or the Pennsylvania Department of Environmental Protection (hereinafter "PADEP") the right to enter upon the Property to inspect the Conservation Area at reasonable times to monitor compliance with and

otherwise enforce the terms of this Conservation Easement; provided that, except in cases where Grantor determines that immediate entry is necessary to prevent, terminate, or mitigate a violation of this Conservation Easement; such entry shall, when practicable, be upon reasonable prior notice to the Holder, any successor or assign, and Grantor shall not unreasonably interfere with the Holder's, successor's or assign's use and quiet enjoyment of the Property in accordance with the terms of this Conservation Easement;

B. To allow the Grantor, the Holder, the Corps or the PADEP to enforce the terms of this Conservation Easement by appropriate legal proceedings in accordance with **[FOR GOVERNMENT ENTITIES, USE: Pennsylvania Statutes, Title 32 §§ 5051-5059] [FOR ALL OTHERS, USE: Pennsylvania common law]** so as to prevent any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement and to require the restoration of such areas or features of the Conservation Area that may be damaged by any inconsistent activity or use; and

C. To allow the Grantor, the Holder, or their authorized representatives, to enter upon the Property and its Conservation Area at reasonable times, upon prior notice to the property owner; and upon prior notice and written approval by the Corps and PADEP to take any appropriate environmental or conservation management measures consistent with the terms and purposes of this Conservation Easement, including:

- 1) Planting of native vegetation (i.e. trees, shrubs, grasses and forbs); or
- 2) Restoring, altering or maintaining: the topography; hydrology; drainage; structural integrity; streambed; water quantity; water quality; any relevant feature of any stream, wetland, water body, or vegetative buffer within the Conservation Area as provided in the Mitigation Plan approved by the IRT.

2. DURATION

This Conservation Easement shall remain in effect in perpetuity, shall run with the land regardless of ownership or use, and is binding upon all subsequent Grantors, their heirs, executors, administrators, successors, representatives, devisees, and assigns, as the case may be, as long as said party shall have any interest in any part of the Conservation Area.

3. PERMITTED USES

This Conservation Easement will not prevent the Grantor; subsequent property owner(s); and the personal representatives, heirs, successors, and assigns of either the Grantor or subsequent property owner from making use of the area(s) that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement.

4. RESTRICTIONS

Any activity in or use of the Conservation Area inconsistent with the purpose of the Conservation Easement by the Grantor; subsequent property owner(s); and the personal representatives, heirs, successors, and assigns of either the Grantor or subsequent property owner, is prohibited. Without limiting the generality of the foregoing, and except when an approved purpose under 1.C above, or as necessary to accomplish mitigation approved under the aforementioned Mitigation Plan, the following activities and uses are expressly prohibited in, on, over, or under the Conservation Area, subject to all of the express terms and conditions below:

- A. **Structures.** The construction of man-made structures including but not limited to the construction, removal, placement, preservation, maintenance, alteration, or decoration of any buildings, roads, utility lines, billboards, or other advertising. This restriction does not include deer stands, bat boxes, bird nesting boxes, bird feeders, duck blinds, and the placement of signs for safety purposes or boundary demarcation.
- B. **Demolition.** The demolition of fencing structures constructed for the purpose of demarcation of the Conservation Area or for public safety.
- C. **Soils.** The removal, excavation, disturbance, or dredging of soil, sand, peat, gravel, or aggregate material of any kind; or any change in the topography of the land, including any discharges of dredged or fill material, ditching, extraction, drilling, driving of piles, mining, or excavation of any kind.
- D. **Drainage.** The drainage or disturbance of the water level or the water table, except for pre-existing or approved project-related stormwater discharges and any maintenance associated with those stormwater discharges. All pre-existing or approved project-related drainage/stormwater discharge features should be shown on the accompanying plat map or approved plan and attached to this Conservation Easement.
- E. **Waste or Debris.** The storage, dumping, depositing, abandoning, discharging, or releasing of any gaseous, liquid, solid, or hazardous waste substance, materials or debris of whatever nature on, in, over, or underground or into surface or ground water, except for pre-existing or approved project-related stormwater discharges and any maintenance associated with those stormwater discharges.
- F. **Non-Native Species.** The planting or introduction of non-native species.
- G. **Herbicides, Insecticides and Pesticides.** The use of herbicides, insecticides, or pesticides, or other chemicals, except for as may be necessary to control invasive species that threaten the natural character of the Conservation Area. State approved municipal application programs necessary to protect the public health and welfare are not included in this prohibition.

H. **Removal of Vegetation.** The mowing, cutting, pruning, or removal of any kind; disturbance, destruction, or the collection of any trees, shrubs, or other vegetation, except for pruning, cutting or removal for:

- 1) safety purposes; or
- 2) control in accordance with accepted scientific forestry management practices for diseased or dead vegetation; or
- 3) control of non-native species and noxious weeds; or
- 4) scientific or nature study.

I. **Agricultural Activities.** Conversion of, or expansion into, any portion of the Conservation Area for use of agricultural, horticultural, aquacultural, silvicultural, livestock production or grazing activities. This prohibition also includes conversion from one type of these activities to another (e.g., from agricultural to silvicultural). ***[NOTE: THE FOLLOWING LANGUAGE SHOULD BE ADDED, AS APPROPRIATE FOR PROJECTS IN DESIGNATED BOG TURTLE COUNTIES: Corps approved management practices, including the introduction of livestock, for the purpose of maintaining bog turtle habitat, are not included in this prohibition.]***

J. **Other.** Other acts, uses, excavation, or discharges which adversely affect fish or wildlife habitat or the preservation of lands, waterways, or other aquatic resources within the Conservation Area.

5. INSPECTION, ENFORCEMENT AND ACCESS RIGHTS

Evergreen, the Corps, and/or the PADEP, and its/their authorized representatives shall have the right to enter and go upon the Property, to inspect the Conservation Area and take actions necessary to verify compliance with this Conservation Easement. When practicable, such entry shall be upon prior reasonable notice to the property owner. The grantor grants to the Corps, the U.S. Department of Justice, and/or the PADEP, a discretionary right to enforce this Conservation Easement in a judicial action against any person(s) or other entity(ies) violating or attempting to violate these restrictive covenants: provided, however, that no violation of these restrictive covenants shall result in a forfeiture or reversion of title. In any enforcement action, an enforcing agency shall be entitled to a complete restoration for any violation, as well as any other judicial remedy such as civil penalties. Nothing herein shall limit the right of the Corps to modify, suspend, or revoke any permit.

6. RECORDING AND EXECUTION BY PARTIES

The Grantor agrees to record this Conservation Easement in the Land Records of the county or counties where the Property is located and provide the Corps with proof of recordation prior to the start of the work authorized by the attached permit. Further, if anticipated activities in the Conservation Area are agreed upon for future phases of the site, as spelled out in the "Reserved Rights", the Grantor must submit plans to the Corps and PADEP for review and approval prior to any work in the Conservation Area.

7. NOTICE OF TRANSFER OF PROPERTY INTERESTS

No transfer of the rights of this Conservation Easement, or of any other property interests pertaining to the Conservation Area or the underlying property it occupies shall occur without sixty (60) calendar days prior written notice to the PADEP and the Corps.

8. MODIFICATIONS

The restrictions contained in this Conservation Easement are required by the attached Department of the Army Permit and/or Mitigation Banking Instrument and/or Mitigation Plan. There shall be no changes or alterations to the provisions in this Conservation Easement without prior written approval from the appropriate District Commander of the Corps and PADEP. The Corps and PADEP shall be provided with a 60-day advance written notice of any legal action concerning this Easement or of any action to extinguish, void, or modify this Easement in whole or in part, including transfer of title to, or establishment of any other legal claims over, the Property. This Easement is intended to survive foreclosure, bankruptcy, condemnation, or judgments affecting the Property.

9. RESERVED RIGHTS

A. The Grantor and any holders of easements or other property rights for the operation and maintenance of pre-existing or project-related structures or infrastructure such as roads, utilities, drainage ditches, or stormwater facilities that are present on, over or under the Conservation Area reserve the right, within the terms and conditions of their permits, their agreements, and the law, to continue with such operation and maintenance. All pre-existing or approved project related structures or infrastructure shall be shown on the accompanying plat map or approved plan and attached to this instrument.

B. If the authorized project requires any related or unanticipated infrastructure modifications, utility relocation, drainage ditches, or stormwater controls within the identified Conservation Area, or if situations require measures to remove threats to life or property within the identified Conservation Area, said activities must be approved in writing by the Corps and PADEP subject to terms and conditions set forth in the written approval. Approval is subject to the Corps' and PADEP's sole discretion. If approved, said activities must be identified on amended Exhibits _ and _ and must be recorded and specifically noted as an "amendment" and copies of the recorded amended Exhibits must be provided to the Corps and PADEP within 60 days of Corps approval. Approval of said activity by the Corps is in addition to any Clean Water Act, Section 404 permit, or other authorization, which may be required in order to legally implement said activity. The Grantor accepts the obligation to place any other responsible party on reasonable prior notice of their need to request such Corps and PADEP approval

10. SEVERABILITY

If any portion of this Conservation Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument,

or application of such provision to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

11. MITIGATION

If the work required by a mitigation plan including maintenance or remedial work, under the Department of Army permit for the authorized project occurs within the Conservation Area, then the Grantor is allowed to construct the mitigation work in accordance with the authorized mitigation plan, a copy of which is incorporated by reference.

12. COAL RIGHTS NOTICE

The following notice is given to and accepted by Grantor for the purpose and with the intention of compliance with the requirements of the Pennsylvania Conservation and Preservation Declarations Act. Nothing herein shall imply the presence or absence of workable coal seams or the severance of coal interests from the Property.

[IF GRANTOR HAS A MORTGAGE OR OTHER LEGAL ENCUMBRANCE ON THE PROPERTY, THE CONSERVATION EASEMENT MUST INCLUDE A COMPLETED VERSION OF THE FOLLOWING:]

13. [CONSENT OF LENDER AND TRUSTEE

Grantor is the maker of a note dated _____ secured by a deed of trust dated _____ from the Grantor to _____ as trustees and either of whom may act, recorded in the Clerk's office in Deed Book _____ at page _____, for the benefit of Bank (The "Deed of Trust."). _____, as trustees, join herein for the sole purpose of subordinating the lien, dignity and priority of the Deed of Trust to this Conservation Easement. _____ Bank joins herein for the sole purpose of consenting to the trustee's actions.]

IN WITNESS WHEREOF said GRANTOR has executed this Conservation Easement the day and year first above written.

***[COMPANY OR GOVERNMENT
ENTITY NAME OF GRANTOR, IF
APPLICABLE]***

BY: _____
***[TITLE OF OFFICER OF GRANTOR
ENTITY, OR GRANTOR'S NAME, IF AN
INDIVIDUAL]***

COMMONWEALTH OF PENNSYLVANIA:

: SS

COUNTY OF _____:

:

On _____, before me, a Notary Public for the Commonwealth aforesaid, personally appeared _____, who acknowledged himself/herself to be **[TITLE OF OFFICER OF GRANTOR ENTITY, OR GRANTOR'S NAME, IF AN INDIVIDUAL]**, and that s/he, as **[USE IF APPLICABLE: an officer of]** the Grantor, being authorized to do so, executed, in my presence, the foregoing Conservation Easement for the purposes herein contained

IN WITNESS WHEREOF, I have set my hand and official seal.

Notary Public
My commission expires:

[SEAL]

APPROVED AS TO LEGALITY AND FORM

[ONE OR MORE SIGNATURE BLOCKS HERE FOR THE ATTORNEY FOR THE GRANTOR, AND IF A COMPANY OR GOVERNMENT ENTITY, ANY OTHER NECESSARY OFFICIALS.]

ACCEPTANCE BY HOLDER

I accept the rights and responsibilities of the Holder conferred by this Conservation Easement.

**[NAME OF HOLDER OR HOLDER'S
REPRESENTATIVE]
[TITLE OF REPRESENTATIVE, IF
APPLICABLE]**

COMMONWEALTH OF PENNSYLVANIA:

: SS

COUNTY OF _____

:

On _____, before me, a Notary Public for the Commonwealth aforesaid, personally appeared _____, who acknowledged himself/herself to be _____, and that s/he, as **[USE IF APPLICABLE: an officer of]** the Grantor, being authorized to do so, executed, in my presence, the foregoing Conservation Easement for the purposes herein contained

IN WITNESS WHEREOF, I have set my hand and official seal.

Notary Public
My commission expires:

[SEAL]

NOTE: Some version of the following notarization will accompany the complete, executed, and recorded instrument. The version below is simply one example. Other versions may be used to follow local legal recordation practice, including, for example, but not limited to, those referring only to a Deedbook Volume and Page, or only to a Liber and Folio.]

COMMONWEALTH OF PENNSYLVANIA:

: SS

COUNTY OF _____

:

Recorded in the Office for Recording of Deeds
in and for aforesaid County, in
Deedbook _____, Vol. _____,
Page _____

Witness my hand and seal of Office

On _____

RECORDER OF DEEDS

GRANTOR

Revised 19 February 2013