

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

# Joint Public Notice

**In Reply to Application Number  
CENAB-OPR-M (Wye Mitigation Bank)  
2018-61106**

**Maryland Nontidal Wetlands License No. 18-NT-2073**



**Maryland Department of  
the Environment**

**PN 18-54**

**Comment Period: September 13, 2018 to October 13, 2018**

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**THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC CONCERNING THE PROPOSED WYE MITIGATION BANK PROSPECTUS FOR DEVELOPMENT OF A PRIVATE COMMERCIAL MITIGATION BANK.**

THE BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS (CORPS) AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) ARE SOLICITING COMMENTS FROM THE PUBLIC; FEDERAL, STATE, AND LOCAL AGENCIES AND OFFICIALS; INDIAN TRIBES; AND OTHER INTERESTED PARTIES IN ORDER TO CONSIDER AND EVALUATE THE BANKING INSTRUMENT PROSPECTUS, THE PROPOSED WYE MITIGATION BANK, AND THE POTENTIAL OF THE PROPOSED MITIGATION BANK TO PROVIDE APPROPRIATE COMPENSATORY MITIGATION FOR ACTIVITIES AUTHORIZED BY DEPARTMENT OF THE ARMY AND STATE OF MARYLAND PERMITS.

At this time, no decision has been made as to whether or not the proposed Mitigation Banking Instrument for the Wye Mitigation Bank Site will be approved. We are requesting comments to determine if approval should be granted for the proposed Wye Mitigation Bank for the purpose of providing compensatory mitigation for future unavoidable wetland impacts authorized by the Department of the Army (DA) and MDE under Section 404 of the Clean Water Act (CWA) and Titles 5 and 16 Environment Article Annotated Code of Maryland. Such authorized use of a Bank must meet all applicable requirements and be authorized by the appropriate authorities.

Issuance of a public notice regarding proposed mitigation banks is required pursuant to the "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule," (Rule) as published in the April 10, 2008, Federal Register, Vol. 73, No. 70, Pages 19594-19705 (33 CFR Parts 325 and 332).

At this time, a complete application for work in waters of the United States or Waters of the State to construct the Wye Mitigation Bank Site has not been received by the Corps and the MDE. A preliminary review of the proposed site indicates that there may be waters of the United States or Waters of the State, including wetlands within the project area. These areas may be regulated pursuant to Section 404 of the Clean Water Act (CWA), the Maryland Nontidal Wetlands Protection Act, and the Maryland Waterway Construction Act, and the work described below may require Corps and MDE authorization.

The Corps and MDE have received the Wye Mitigation Bank Prospectus which is available at our website:

<http://www.nab.usace.army.mil/Missions/Regulatory/PublicNotices.aspx> as an attachment to the electronic copy of this public notice. Those receiving notification of this public notice who desire a copy of the proposed Prospectus may either access the above website link or, may request a hard copy of the document by contacting Mr. Jason R. Peters, Baltimore District, Corps, Regulatory Easton Field Office at 410.820.8550 ([Jason.R.Peters@usace.army.mil](mailto:Jason.R.Peters@usace.army.mil)) or by contacting Ms. Kelly Neff, MDE, Wetlands and Waterways Program at 410.537.4018 ([kelly.neff@maryland.gov](mailto:kelly.neff@maryland.gov)).

This Prospectus provides a summary of the information regarding the proposed Mitigation Banking Instrument and the Wye 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 Maryland Interagency Review Team (IRT), which is comprised of Federal and State regulatory and resource agencies. The Corps serves as chair of the IRT, and the MDE as co-chair the IRT.

This prospectus provides a summary of how the proposed Wye Mitigation Bank will be established, used, operated, and maintained and is provided in accordance with the Federal Final Rule on Compensatory Mitigation for the Losses of Aquatic Resources (33 CFR 325 and 332 and 40 CFR 230) and Code of Maryland Regulations (COMAR).

**APPLICANT:** Beverly W. Tilghman, Trustee  
Richard Tilghman Family Enterprise Trust  
26080 Bruffs Island Road  
Easton, Maryland 21601

**SPONSOR:** Johnson, Mirmiran and Thompson, Inc.  
Attn: Mr. Jim Morris, P.E. and Mr. Chandler Denison  
40 Wight Avenue  
Hunt Valley, Maryland 21030

The Sponsor proposes in accordance with the attached plans, to establish, design, construct, and operate a compensatory Mitigation Bank.

**LOCATION AND WATERWAY:** The mitigation bank site is proposed in the Miles and Wye River sub-watersheds on an approximately 58-acre parcel of land containing agricultural drainage ditches and farmed nontidal wetlands that drain off-site in a south westerly direction through unnamed tributaries to Leeds Creek. The site is located southeast of the intersection of Bruffs Island Road and Copperville Road, at 26400 Bruff Island Road, in Easton, Talbot County, Maryland (Latitude 38.832483, Longitude 76.154385).

**BANK DESCRIPTION:** The proposed Wye Mitigation Bank would provide compensatory mitigation for future unavoidable nontidal wetland and stream impacts

authorized by a Section 404 CWA permit, a Maryland Nontidal Wetlands Protection Act permit and/or a Maryland Waterways Construction Act permit. This 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 proposed mitigation bank is comprised of approximately 1,470 linear feet of stream restoration, 3.62 acres of wetland enhancement, 47.59 acres of wetland restoration, and 4.57 acres of wetland buffer enhancement within an approximately 58 acre site protected by a permanent conservation easement. 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.

**BANK SERVICE AREA:** The primary service area for the proposed mitigation bank is the Chester-Sassafras and the Choptank Watersheds (USGS 8-digit Hydrologic Unit Codes (HUC) 02060002 and 02060005, respectively) and the secondary service area is the Tangier and Nanticoke Watersheds (USGS 8-digit HUC 02080110 and 02080109, respectively).

**WORK REQUIRING CORPS AND MDE AUTHORIZATION:** At this time, a jurisdictional determination has not been performed by the Corps/MDE to confirm Federal and State jurisdiction at the proposed 58-acre mitigation bank. The proposed work to construct a wetland and stream mitigation bank involves grading, excavating and filling selective areas within the mitigation bank site by temporarily impacting approximately 3.62 acres of emergent nontidal wetland, 17.79 acres of State regulated 25-foot nontidal wetland buffer, and 1,470 linear feet perennial stream channel. Any impact to jurisdictional streams and/or wetlands must be approved by the Corps and MDE prior to commencing any regulated construction activities. The wetland buffer and floodplain impacts are subject to MDE regulations. These impacts are not subject to DA regulation.

The final mitigation banking instrument does not provide ultimate DA and/or State authorization for specific future projects impacting waters of the United States or Waters of the State; 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 and MDE provide 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(s).

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.

**ENDANGERED SPECIES ACT:** A preliminary review of this application using the U.S. Fish and Wildlife Service IPaC online screening tool indicates that the proposed work will not affect any Federal listed threatened, endangered, or candidate species and/or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. The U.S. Fish and Wildlife Service (USFWS) Chesapeake Bay Field Office certified this on April 17, 2018. As the evaluation of this proposal continues, additional information may become available which could modify this determination.

**NATIONAL HISTORIC PRESERVATION ACT:** 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. The Maryland Historical Trust (MHT) on May 21, 2018 made the determination that there are no historic properties affected by this undertaking. As the evaluation of this proposal continues, additional information may become available which could modify this determination.

**WRITTEN COMMENTS:** Written comments concerning the activity described above must be submitted directly to the District Engineer, U.S. Army Corps of Engineers, Baltimore District [ATTN: Mr. Jason R. Peters, CENAB-OPR-M], 2 Hopkins Plaza, Baltimore, Maryland, 21201 or by email to [Jason.R.Peters@usace.army.mil](mailto:Jason.R.Peters@usace.army.mil) and to the Maryland Department of the Environment [ATTN: Ms. Kelly Neff, Mitigation and Technical Assistance Section], 1800 Washington Boulevard, Suite 430, Baltimore, Maryland 21230-1708 or by email to [kelly.neff@maryland.gov](mailto:kelly.neff@maryland.gov), within the comment period as specified above to receive consideration.

Requests to be included on the MDE interested persons list may be sent to MDE, Attn: Kelly Neff, 1800 Washington Boulevard, Suite 430, Baltimore, MD 21230 or [kelly.neff@maryland.gov](mailto:kelly.neff@maryland.gov) or 410-537-4018. Any further notices concerning actions on the application will be provided only by mail to those persons on the interested persons list. Please refer to Subsection 5-907 of the Annotated Code of Maryland or the Code of Maryland Regulations 26.23.02 for information regarding the State application process.

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

It is requested that you communicate this 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.

FOR THE DISTRICT ENGINEER:

KATHY B. ANDERSON  
Chief, Maryland Section Southern

Kelly Neff  
Chief, Wetland Mitigation & Technical  
Assistance Section  
Maryland Department of the Environment

Submission Date: July 20, 2018

Bank Sponsor: **Johnson, Mirmiran & Thompson, Inc.**

CENAB-OPR-M-2018-61106 / 18-NT-2073

# Final Prospectus Wye Mitigation Bank Talbot County, Maryland



Submitted To:  
Maryland Interagency Review Team

U.S. Army Corps of Engineers  
U.S. Environmental Protection Agency  
U.S. Department of Interior: Fish and Wildlife Service  
Maryland Department of the Environment  
Maryland Department of Planning  
Maryland Department of Natural Resources  
Maryland Board of Public Works  
National Oceanic and Atmospheric Administration  
Fisheries, Habitat Conservation Division  
Maryland Critical Area Commission

Prepared By:  
Mr. Chandler Denison, 410-316-2484  
Mr. Jim Morris, P.E., 443-662-4354  
cdenison@jmt.com  
jmorris@jmt.com

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## 1. Basic Information and Preamble

This document is organized per the CFR 332.8(d)(2) guidelines for *Information for a Complete Mitigation Bank Prospectus*; it includes relevant sections based on Interagency Review Team (IRT) pre-decisional comments to support the needs set forth in CFR and the 2008 Final Mitigation Rule, as well as Maryland Department of the Environment (MDE) requirements for the development and monitoring of wetland restoration projects.

### *a. Property Owner Interest*

Included in Appendix B of this Prospectus is a letter from the property owner, as well as a signed option agreement, to conduct work on this parcel. The property owner is aware of the environmental restoration work proposed, its nature, and understands the resulting perpetual restriction on the parcel.

### *b. Mitigation Bank Name*

The proposed name for the mitigation bank is the Wye Mitigation Bank (formally known as the Tilghman Site), referencing the historic location where the work will occur.

### *c. Bank Purpose*

This prospectus details the Proposed Wye Mitigation Bank (hereafter, “Bank”), the primary purpose of which is to provide compensatory stream and wetland mitigation for unavoidable impacts to streams and nontidal wetlands authorized under Section 404 of the Clean Water Act and Maryland’s Non-Tidal Wetland Protection Act. The Bank is proposed as a commercial wetland and stream mitigation bank, able to sell credit to any potential purchaser within the proposed primary and secondary service areas only. No additional ability to compensate for impacts outside of these service areas is proposed. Secondary purposes include providing mitigation for impacts under the Maryland Forest Conservation Act. No other proposed crediting mechanisms are presently proposed for the site.

### *d. Location and Vicinity*

The proposed Bank site is located at approximately 26400 Bruffs Island Road, Easton, Talbot County, Maryland, 21601, within the land enclosed between Bruffs Island Road, Gregory Road and Copperville Road (Appendix A, Figure 8) on a parcel that is approximately 58 acres in size. Specific locations are latitude 38.832483, longitude - 76.154385. Present land use is cultivated agriculture. The owner of the parcel is the Richard Tilghman Family Enterprises Trust.

*e. Bank Sponsorship, Landowner and Consultant Contact Information*

The Bank Sponsor of this project is Johnson, Mirmiran and Thompson, Inc. (JMT) and will self-perform the consulting work. The sponsor and consultant points of contact are as follows:

Attn: Mr. Jim Morris, P.E. (Lead Designer and Project Liaison)  
Mr. Chandler Denison (Market Coordinator Contact)

Johnson, Mirmiran and Thompson, Inc.

40 Wight Avenue

Hunt Valley, Maryland, 21030

443-662-4354 (Jim Morris - direct line)

410-472-2200 (fax)

[jmorris@jmt.com](mailto:jmorris@jmt.com)

[cdenison@jmt.com](mailto:cdenison@jmt.com)

The property owner is:

Beverly W. Tilghman, Trustee

Richard Tilghman Family Enterprises Trust

26080 Bruffs Island Road

Easton, MD 21601

All communications should be coordinated through the Bank Sponsor.

*f. Adjacent Property Owners*

Multiple adjacent parcels are also under the same ownership as the parcel the Bank on which the bank will occur. List of the other adjacent landowners are provided in Appendix B, List of Adjacent Property Owners.

*g. Agency Coordination*

Agency coordination has been conducted and responses have been received from Maryland Historic Trust, Maryland Department of Natural Resources Wildlife and Heritage, and U.S. Fish and Wildlife Service. No species of concern, critical habitats, historic resources, or other issues of concern were identified in this process. The responses are provided in Appendix B, Trilogy Letters.

## 2. Objectives

*a. Resource Types Proposed*

This mitigation project site yields multiple opportunities for restoration, enhancement, and preservation. The proposed restoration resource types will be palustrine forested

wetland (PFO) and other wetland types as part of a successional mosaic, and stream restoration.

- Wetland Restoration Opportunities: The existing conditions include multiple hydric soil inclusions, which have been drained through various methods and significantly disturbed through agriculture. These areas are proposed to be restored into functioning wetlands. These activities would typically be categorized as “re-establishment” and involve activities which restore 3-parameter positive wetlands (hydric soils, hydrophytic vegetation, and hydrology), where in the present condition they do not exist due to prior impacts.
- Wetland Preservation Opportunities: The project will evaluate the connection between the site and the adjacent high-quality resources and determine if preservation of those high quality adjacent wetlands is a suitable activity for mitigation credit, beneficial to the project area as a whole.
- Wetland Enhancement Opportunities: Existing wetlands are present on the project site, but with functions and values at less than their full ecological potential. These include drainage features, as well as existing farmed wetlands. Enhancement opportunities include grading of existing surface water wetlands to re-connect them to groundwater, eradication of Common Reed (*Phragmites australis*), and other invasive species and restoration of native vegetation. Additional enhancement opportunities can be found by increasing the wetland buffer to a minimum of 25’, removing trash and unnatural debris, and planting additional native species for pollinator benefit. These activities would typically be categorized as “rehabilitation” and aim to improve functions and values of existing 3-parameter positive wetlands which exist in the present condition.
- Stream Restoration Activities: Some of the drainage features on the site may be jurisdictional streams. These are straightened with limited existing habitat and have been optimized for drainage. Restoration of these features is proposed, including re-alignment of streams with an increase in sinuosity, placement of suitable substrates, and establishment of a robust buffer of minimum 25’ width. In this prospectus, we are proposing to rehabilitate the total existing stream length, which is the quantity presented here. Re-establishment of streams with increased sinuosity may be possible, however, the extent is not yet known and dependent on assessment and data collection. Re-establishment of streams may be presented at the MBI stage. Functions and values targeted for this restoration approach include the availability, diversity, and quantity of physical habitats and substrates, as well as hyporheic exchange, floodplain connectivity, and temporal availability of habitats through connection with the groundwater table.
- Forest Mitigation/Wetland Buffer Opportunities: Existing agricultural land present opportunities to compensate for the loss of trees as part of the construction of the project, as well as restore additional forest. A minimum 25’ wetland buffer is proposed around the perimeter of the site.

These practices will address historic losses of functions and values in the watershed, and the site-specific primary impairments discussed in this document.

*b. Compensation Quantities by Type*

All of the credit calculations follow IRT and MDE guidelines. Stream and wetland restoration is calculated at a ratio of 1:1. Stream and wetland enhancement are calculated at a ratio of 3:1 (i.e., for every 3 acres or linear feet of enhancement, one credit is generated). Stream and wetland preservation is calculated at a ratio of 10:1 (i.e., for every 10 linear feet of stream preservation, one credit is generated). Wetland buffer enhancement is calculated at a ratio of 15:1 (i.e., for every 15 acres of wetland buffer enhancement, one credit is generated). These ratios are based on the best available regulatory pre-decisional guidance and precedence from previous permittee-responsible projects.

The Bank Sponsor is proposing that the Bank lands be eligible for sale as multiple types of credit, including compensatory mitigation and forest conservation credit. In accordance with the 2008 Mitigation Rule, credits cannot be sold twice, i.e., no “stacking.” To be clear, credits will only be sold once.

- Wetland Enhancement (all types): 3.62 acres yielding 1.21 credits.
- Wetland Restoration: Approximately 47.59 acres footprint yielding 40 credits.
- Wetland Preservation: 0 acres yielding 0 credits.
- Stream Restoration: 1,470 linear feet yielding 1,470 credits.
- Wetland Buffer Enhancement: 4.57 acres yielding 0.30 credits.

Wetland restoration will be divided between wetland types (e.g., forested, scrub-shrub, emergent, and open water). At present, it is estimated that 35.55 acres of forested wetland will be created with the remainder comprising a mosaic of open water, emergent, and scrub shrub habitats. An efficiency of approximately 85% is predicted for successful creation of forested and other wetland habitats eligible for credit from the 47.59-acre restoration footprint in the overall 55.25-acre wetland bank area.

*c. Methods of Proposed Compensation*

Restoration activities will involve the alteration of ground elevations and/or shallow groundwater regimes to establish beneficial wetland hydrology in the project area. This includes creating environments that promote development and maintenance of hydric soil conditions.

The removal of ditching and drainage features such as swales, tiles, and graded “lands” is the primary approach to effectively restoring hydrology. Lowering the elevation of the ground surface to meet groundwater is a proposed method of restoring hydrology. Diversion and modification of surface flows is also a proposed element of the design.

*d. Mitigation in Context of Watershed Needs and Previous Impacts*

The watershed has documented impact and impairment since the time of colonial settlement. This specific parcel, obtained through grant from the English Crown by the Lloyd family in 1659, has been cleared, graded, and drained, impacting any previous forest and wetland habitats originally present. Through centuries of agricultural practices, organic matter was lost from soils, and soils were disturbed, and compacted. This represents not only physiochemical alteration of soil properties, but also loss of the microbiome of those soils. These types of impacts are prevalent throughout the entire Eastern Shore of Maryland.

These local impacts had wide ranging impacts on the watershed, including direct impairment through agriculture, non-point source pollution, and loss of soils to receiving waters and ultimately the Chesapeake Bay.

Restoration will increase the physical quantity of forested and other wetland types, improve quantity and quality of a variety of habitats (such as for birds, herpetofauna, and terrestrial mammals), improve the taxonomic diversity of plants, restore and add additional in-channel physical habitat, provide connectivity between interrupted and fragmented adjacent habitats. A comprehensive set of performance criteria for restoration of functions and values will be proposed at the mitigation banking instrument (MBI) stage of this project.

### 3. Mitigation Bank Establishment and Operation

*a. Address and Site Coordinates*

The proposed Bank site is located at approximately 26400 Bruffs Island Road, Easton (Talbot County), Maryland, 21601, within the land enclosed between Bruffs Island Road, Gregory Road and Copperville Road, latitude 38.832483, longitude -76.154385, on a parcel that is approximately 58 acres in size.

*b. Type of Bank*

The Bank is proposed as a commercial wetland and stream mitigation bank, able to sell credit to any potential purchaser within the proposed service areas.

*c. Scope of Work for Site Development*

Prior to designing and implementing work at the site, an extensive gathering of existing data and new data collection will be conducted. This data collection is discussed in Section 8.

**d. Mitigation Work Plan**

A proposed working plan for the mitigation site is presented which shows the proposed mitigation types as well as their quantities (Appendix A, Figure 3). The proposed work plan will be modified following data collection efforts and revised for the MBI phase of the project into a full grading and conceptual mitigation plan.

**e. Number and Kind of Credits**

Crediting will follow the types previously outlined in this document. This includes:

- Wetland Enhancement (all types): 3.62 acres yielding 1.21 credits.
- Wetland Restoration: Approximately 47.59 acres footprint yielding 40 credits.
- Wetland Preservation: 0 acres yielding 0 credits.
- Stream Restoration: 1,470 linear feet yielding 1,470 credits.
- Wetland Buffer Enhancement: 4.57 acres yielding 0.30 credits.

Forest conservation credits is proposed to encompass the balance of non-wetland, forested portions proposed at the site, to be determined through the monitoring process.

The number of credits is likely to change following design and IRT coordination.

**f. Credit Release Schedule**

This proposed credit release schedule is the standard IRT guideline for non-tidal wetlands. The final schedule will be developed during the MBI phase of the project.

| Stream and Wetland Mitigation Bank Site Milestones   | Credit Percentage Released |                           |
|--|----------------------------|---------------------------|
|  | Preservation               | Restoration & Enhancement |
| Mitigation Banking Instrument Approved by Corp & MDE | 100%                       | 15%                       |
| Successful Post-Construction As-built Submittal      | 0%                         | 15%                       |
| After Year 1 and Performance Standards Met           | 0%                         | 0%                        |
| After Year 2 and Performance Standards Met           | 0%                         | 20%                       |
| After Year 3 and Performance Standards Met           | 0%                         | 10%                       |
| After Year 4 and Performance Standards Met           | 0%                         | 0%                        |
| After Year 5 and Performance Standards Met*          | 0%                         | 15%                       |
| After Year 6 and Performance Standards Met*          | 0%                         | 0%                        |
| After Year 7 and Performance Standards Met*          | 0%                         | 10%                       |
| After Year 8 and Performance Standards Met*          | 0%                         | 0%                        |
| After Year 9 and Performance Standards Met*          | 0%                         | 0%                        |

| Stream and Wetland Mitigation Bank Site Milestones  | Credit Percentage Released |                           |
|---|----------------------------|---------------------------|
|   | Preservation               | Restoration & Enhancement |
| After Year 10 and Performance Standards Met*  | 0%                         | 15%                       |
| <i>*Note: Starting in Year 5, if performance standards are met for two consecutive years, all remaining credits are proposed for release.</i> |                            |                           |

***g. Pre-Application Meeting***

An agency field review meeting has already occurred, and letters from the USACE and MDE were prepared giving preliminary approval for the site (Appendix B). An additional pre-application meeting will be held at the MBI stage. A request for a Jurisdictional Determination (JD) has been prepared and submitted to MDE / USACE. No additional meetings are proposed prior to the submission of this document, but it is anticipated other meetings will be required through the MBI process.

***h. Joint Permit Application***

A Joint Permit Application (JPA) will be provided at the MBI phase, following the JD meeting and receipt of the approved JD. Nationwide 27 authorization is anticipated for these activities. This would be more consistent with regulation to determine the impacts of the project to only approved, jurisdictional resources. JMT will yield to the determination of the USACE and MDE for jurisdictional resources at both the federal and state level; all impacts to these resources as part of this project are currently viewed as temporary with potential for enhancement of their functions and values.

**4. Proposed Service Areas**

***a. Primary and Secondary Service Areas***

The proposed primary Service Areas are the Chester-Sassafras and Choptank Watersheds (HUC 02060002 & 02060005).

The proposed secondary Service Areas are the Tangier and Nanticoke Watersheds (HUC 02080110 & 02080109).

A map is provided depicting the primary and secondary service areas (Appendix A, Figure 5).

*b. Service Area Rational and Justification*

The site itself is within the Miles River and Wye River sub watersheds, which are within the larger Chester-Sassafras watershed (Appendix A, Figure 2). This location is extremely similar to the Choptank watershed, as both are major tributaries to the Chesapeake with the site having close proximity to both watersheds. These watersheds have similar geology, plant and animal life, and share an eastern shore common geologic origin directly linked to the fluvial processes of the Susquehanna River and Chesapeake Bay.

This secondary service areas were chosen because the proposed Bank location is in the eastern shore coastal plain region of the state, characterized by similar topography, soils and wildlife. Both primary and secondary service areas also serve as an important migratory corridor for waterfowl, song birds and raptors. Connectivity exists between these watersheds, with free movement of fauna without major physical or geologic barriers. Based upon the wetland types in the primary and secondary service areas as well as the types of wetland impacts anticipated, the resources proposed at the bank should be able to compensate for the wetland functions and values lost due to the anticipated impacts in these watersheds.

The secondary service areas share similar geology, plant life, soils and fauna. It too has experienced the same types and methods of systematic habitat destruction through centuries of agricultural development, deforestation, and soil loss. These service areas and the anticipated impacts occurring in them have the capacity to have the functions and values potentially lost restored at the project site.

All these tributaries contribute to an interconnected coastal ecosystem, influencing not only the on-shore but also offshore resources of the eastern side of the Chesapeake Bay, and creating a diverse and world-wide unique estuarine habitat. These resources are used interchangeably by anadromous and catadromous fish, birds, and terrestrial species.

## 5. Need and Technical Feasibility

*a. Watershed Description and Viability of Banking*

The Chester-Sassafras is a predominantly flat and gently rolling land watershed, with principal land uses of cropland, forest, irrigated croplands, wetlands and urban lands. Poultry houses are a significant agricultural use. The watershed is comprised primarily of the Chester and Sassafras rivers, multiple smaller tributaries are included contributing to these major rivers including the Miles River and the Wye River. The Choptank River watershed is very similar, with the same land uses and flat or gently rolling topography. The project area includes drainages to the Miles River and Wye River, part of the



Chester-Sassafras watershed and existing in a portion of the watershed which is predominated by forest, forested wetlands and agricultural lands.

Development activities in these watersheds include additional and redevelopment of transportation, residential growth, and dense agricultural growth, such as poultry houses and other livestock facilities. Research demonstrates that there is potential for credit sales in this watershed from a variety of government and private sources.

The proposed Bank site is viable for numerous reasons. The parcel on which the Bank will be located is not protected by any easements or covenants, potentially allowing future development and jeopardizing the habitat thereon. Land uses upstream from the property include low density residential and small agricultural practices.

The proposed Bank site is in a large farm field; thus, the restoration, enhancement and preservation will improve environmental resources and define clear boundaries for farming practices outside of the parcel using existing roads, tree lines and other features. Although the site was highly impacted in the past, these impacts are prior to the Clean Water Act and other relevant/ present-day applicable regulations regarding the impacts to wetlands and waterways. Therefore, these impacts were legal, and are eligible to provide restoration credits. No illegal or ongoing impacts to wetlands and waterways are known to be present on the project site.

*b. Site Selection Process*

A comprehensive site search was used to screen sites within the watershed based on land use, soils, watershed position, proximity to other resources, and other relevant factors used traditionally in the determination of site suitability for restoration practices. Rather than screening only the available land on public property, property for sale, or owned by a key tenant client, all parcels within the Chester-Sassafras watershed were screened for suitability through desktop analysis. With the top parcels selected by a panel of engineers and scientists experienced in restoration and mitigation, public outreach was conducted, and this parcel was selected based on positive landowner feedback and agreement to the restoration practices proposed. This site was JMT's first choice for this project, and we regard it as one of the highest potential sites for restoration within all the Chester-Sassafras watershed in this size class of parcel with no significant forest cover.

This approach is completely different from traditional PRM restoration approaches and involved the usage of proprietary GIS programming and algorithms and the technical expertise of JMT's Information Technology Group as part of a multidisciplinary approach. Traditional PRM site selection often only accounts for sites owned by the permit applicant or related sister government/ private organizations and may select sites based on ease of land availability and not overall restoration site potential as the 2008 Final Mitigation Rule mandates.

JMT's site selection process demonstrates that project sites can be selected with restoration potential as the top priority despite perceived difficulties in selecting sites on private land. This site allows for the capacity to restore high quality resources with very limited impacts to existing regulated resources. It specifically has the following valuable attributes:

- Exhibits physical connectivity to existing high quality forested wetland features.
- Contains multiple sources of hydrology, including drainage from other sites, precipitation, and strong potential for groundwater connectivity.
- Is compatible with landowner long-term perpetuation plans and adjacent land uses.
- Restores lands impacted by agriculture.
- Promotes the management of this parcel as well as adjacent land parcels toward long-term conservation.

*c. Local and Regional Benefits of the Bank*

It is anticipated that the connectivity of this proposed restoration with other existing resources will only magnify the value of those existing resources. Local water quality improvement is expected through improved land cover, reduced erosion, and ceasing of agricultural wide-spectrum herbicide and pesticide application.

Regionally, this project is part of a watershed-wide approach to restoring the streams and wetlands of the State of Maryland and placing high quality habitats into perpetual easement for their long-term beneficial management in perpetuity. This has benefits in encouraging a thriving restoration industry, enhancing birding and other forms of passive environmental recreation, and working towards a clean and healthy Chesapeake Bay, which is of paramount regional importance.

*d. Threats to the Site and Existing Impairments*

No known existing threats critically endanger the mitigation location or make the site unfeasible. There are no known adjacent developments planned, roadway or redevelopment work. Perimeter threats such as trespass or encroachment from the County right of way will be handled with monitoring, signage, and long-term instruments described elsewhere. Deer herbivory will be addressed with installation of perimeter deer-exclusion fencing just outside the County right of way. Known threats therefore will be addressed by the work proposed. There are no known adjacent or upstream withdrawals of surface flow or groundwater which would impact the site. Surface water inputs to the site come from forested parcels, controlled by the Landowner. Therefore, control of the hydrology is not perceived as an issue. The existing surface flows and groundwater hydrology will be utilized for the primary hydrologic functions of the mitigation areas. No long-term detention or diversion of water is proposed; therefore, no secondary impacts due to hydrologic alteration are anticipated. No other existing hydrologic disturbances are known to influence the site.

*e. Proposed Construction Work to Address Site Impairments*

Investigation of the site has revealed several principle impairments to the wetlands and waterways on the site:

- Straightening of Streams and Creation of Drainage Ditches
  - Historic aerial investigation reveals streams were channelized multiple times. Streams exhibit low to no sinuosity.
- Deforestation of Stream Buffer
  - The entire site was deforested as shown in historic aerial photos. A lack of channel shade is evident throughout the site.
- Draining of Wetlands
  - Multiple potential existing tile locations have been noted, draining existing wetlands. Some small ditches appear to be draining from wetland areas; these were likely excavated to drain wetlands.

These impacts are in addition to the principle watershed impacts of deforestation, agriculture, and climate change.

Top-Level Functional Losses resulting from these impacts include:

- Trophic Impacts/ Ecosystem Simplification
- Dominance of Invasive Species/ Bare Soil
- Loss of Soil Carbon and Impairment of Soil Biology

Construction will focus on activities which remove or remediate the existing impairments, and establishment of a self-forming and maintaining complex wetland ecosystem. Techniques for construction include:

- Removing via grading and excavation the tile, ditching, and drainage features which suppress wetland hydrology throughout much of the site.
- Grading areas to meet the shallow groundwater table.
- Installing perimeter controls, buffers, and other features which will reduce the risk of losing sediment from the site during and following construction.
- Planting a robust group of native trees, shrubs and herbaceous species suited to the hydrology of the site, and to the standards established for their respective Cowardin classification.
- Restoring streams to improve their flow diversity through facet reconstruction, quantity of physical habitat, and increase their length through increasing their sinuosity.
- Removing and managing of invasive plant species, such as through use of herbicide or mechanical removal as necessary to promote the establishment of native plant communities.

## 6. Ownership and Long-Term Management

### *a. Long-Term Ownership, Financial Responsibility and Use of Site*

The property will continue under its present ownership. The party responsible for the management of the site and credit sales will be JMT. The property owner will remain the owner of the entire parcel of land and will not be responsible for the monitoring, maintenance, or construction of the mitigation work. They will maintain their passive use rights on the parcel. Agriculture will continue in areas outside the proposed mitigation easement area.

The Bank Sponsor has sufficient funds to plan, execute, and monitor the mitigation work for the duration of the monitoring and adaptive management until final credit release. Bonding and surety is anticipated to be negotiated at the MBI stage. Following final release and sale of credits, long term monitoring and catastrophic event funds will be finalized at the levels determined by the IRT during the MBI stage to ensure the site is sustained in perpetuity.

### *b. Long-Term Management Responsible Party*

JMT will continue as the long-term steward of the property, after credit sales are complete and the easement has been transferred to Eastern Shore Land Conservancy (ESLC). JMT will work with ESLC to support the technical aspects of monitoring and long-term management. The plan will be administered by the long-term steward. Management of the site will be the responsibility of the Bank Sponsor until a long-term steward and easement holder is finalized.

### *c. Site Protection Mechanism*

The proposed site protection instrument is a conservation easement. A Draft Conservation Easement has been provided with this prospectus (Appendix A); the final details of the easement are to be provided during the Draft MBI stage of bank permitting with a final easement executed with final approval of the MBI.

### *d. Holder of the Site Protection Mechanism*

An IRT-approved, third-party, non-profit entity will be responsible for the long-term oversight of the conservation easement. The holder of the long-term site protection easement is proposed to be the ESLC. Documentation of this arrangement is provided in Appendix B, Other Relevant Correspondence.

## 7. Sponsor Qualifications

JMT is a leading provider of environmental restoration services in the mid-Atlantic region. Proudly headquartered in Hunt Valley, Maryland, JMT's Ecological Restoration Group has extensive experience in the design, permitting, and implementation of stream and wetland

restoration projects with extensive Maryland-based experience working with the IRT on compensatory mitigation projects. JMT strives to perform the best possible ecological restoration work, and lead the industry by example, insisting on quantifiable and measurable restoration goals and high-level biological uplift resulting from restoration activities. Detailed staff resumes and project experience can be provided upon request of the IRT.

## 8. Site Suitability

Previous sections of this prospectus have discussed various site suitability and eligibility for restoration. The potential for the site is best seen in the adjacent resources to it, which includes a mix of forested wetlands and high-quality forest habitats. As these habitats take decades to evolve, the site restoration mechanisms will focus on management of the site towards those conditions, which includes various types of wetland and buffer communities evolving toward that mature forest condition. This includes a prevalence of scrub-shrub and emergent communities following construction, moving towards a mosaic of scrub-shrub and forested communities through much of the monitoring period. The majority of the site should strongly fit the guidelines MDE has laid out for forested wetlands by the conclusion of the credit release period, with elements of shrub, emergent, and open water elements.

Site connectivity with adjacent high-quality resources increases the suitability of the restoration. Woody debris, essential in the creation of herpetofauna habitats additionally plays a role in providing perching locations for birds. Birds aid significantly in the natural recruitment of native species, and transfer of seed.

Additional suitability towards restoration includes the predominant presence of hydric soils, which possess the physiochemical characteristics, when coupled with the potential to restore hydrology, to promote the growth of wetland obligate vegetation and other wetland biota on the project site.

### *a. Title Report*

A full title report is presented in Appendix B, Title Report. The proposed mitigation site is free of liens, easements or any other encumbrance.

### *b. Option, Proof of Ownership, and Encumbrances*

An option agreement demonstrating ownership and concurrence for project work is provided in Appendix B, Executed Option Agreement. The site is under JMT's control for the purposes of this mitigation bank. An additional letter is also provided from the land owner in Appendix B, Other Relevant Correspondence .

*c. Title Insurance*

The title search is attached; it is a fully-insured title search and a copy of the insurance is included in Appendix B, Title Insurance.

*d. Other Existing Credit Types on Property*

No other crediting types are present on this property.

*e. Baseline Site Conditions*

The site is in agricultural use for the purpose of growing cereal grains. It is cultivated using conventional agriculture, and the suite of typical pesticides, herbicides, and chemical fertilizers that accompany those practice.

*f. Previous Land Uses for Site and Adjacent Parcels*

The project site and neighboring parcels have never had any previous uses other than forestry and agriculture. One residential parcel is nearby. No know industry has occupied these sites. This will be updated and confirmed following additional site research through the MBI.

*g. Current Zoning of Bank Site and Proposed Development*

The current zoning for the parcel is agricultural. No proposed zoning changes or development are known for the parcel.

*h. Historical Hydrology*

Historically, the site likely supported widespread wetland hydrology, as evidenced by the soils. As previously discussed, draining, ditching and grading have been used to maximize the arable footprint of the project site. An existing water budget of the site will be presented, and through groundwater monitoring, proposed hydrology and hydroperiod will be evaluated through developing a water budget and seasonal groundwater mapping for the project site.

*i. Existing Data Sources and Proposed Data Collection*

Existing data sources were consulted in the formation of this prospectus, and figures of this data are presented in the Appendix A and discussed in Section 8.j. Wetland delineation has already taken place for the project site and is presented in Appendix B, Wetland Delineation.

Fisheries and Benthos: No known data exists for this project site. As the stream resources at this site likely run dry, at this stage no known critical fish habitat is present. Work on the site will be in accordance to time of year restrictions established for these types of resources on the Eastern Shore of Maryland. No additional data collection is anticipated.

Historic Aerials, Historic Accounts: Publicly-available historic aerials have been researched for this project site. Previous land use for the site appears to mimic present day usage in terms of grain farming, with the potential for tobacco and other crops having been grown here previously.

Zoning, Title, and Easement Data: Current zoning of the property and proposed Bank lands is agriculture. Surrounding lands of the proposed Bank are also zoned for agriculture. Preliminary title research has been conducted for the property and no encumbrances, liens or easements are noted. The edges of the property connect County road and utility right of ways that will not impact or affect the proposed Bank. No known mortgages, liens, rights-of-ways, servitudes, easements, mineral rights, etc., other than those previously stated, are known on the property.

Wetland Assessments: A wetland delineation was conducted the week of June 12, 2018. The wetland delineation report and JD request form are attached to this prospectus in Appendix B. No forest stand data was collected; however, there are existing trees lining a ditch feature central to the site and periodic trees adjacent to the road. These trees will be collected through topographic survey and provided at the MBI phase of the project.

Phase I Investigation: No detailed, ASTM-compliant Phase I Environmental Site Assessment (ESA) is proposed for the project site. The site is known to have never been developed or used for any purpose other than agriculture through historic investigation.

Historic Investigation: No known protected historic, archaeological, or cultural resources are present on the site within the proposed work areas. Coordination with Maryland Historic Trust (MHT) is provided in Appendix B, Trilogy Letters. Per standard protocols, and recognizing the adjacent potential for historic resources, if the discovery of resources on the site is made, MDE/MHT will immediately be contacted. No additional studies are proposed at this time.

Topographic Survey: One-foot contour survey will be completed for the site. Utility investigation will be included following coordination with MISS UTILITY. Twelve-inch and larger diameter trees will be located, as well as structures, and other site features. Wetland points, which were collected via GPS, will be included in the base map. This will be completed at the MBI phase of the project.

Geomorphic Stream Assessment: Cross sections of stream features will be collected and used to characterize their geomorphic condition. The Rosgen classification system will be used. A rapid assessment methodology of the available in-stream habitats will be conducted.

Wetlands Function and Value Assessment: Wetland functions and values assessment through New England District Highway Methodology, Evaluation of Planned Wetlands, or the Function-Based Rapid Stream Assessment Methodology or other methodologies acceptable to MDE and USACE will be performed. A JD, as required by the IRT, will be completed during the MBI phase, and accompanying numbers depicting those impacts and restoration to those features will be finalized at that phase. A JD request is included in this submission (Appendix B, JD Request Form).

Water Level and Thermal Monitoring: Thermal transducers and absolute pressure transducers will be installed in monitoring wells and in ditch features and monitored at 1-hour intervals. Atmospheric air temperature and conditions will be monitored at 1-hour intervals in a shaded location on site. This monitoring is expected to continue following construction. Soil temperature will be monitored at one location. Water level monitoring will occur at MBI stage and proceed following MDE's guidance for wetland restoration mitigation projects. A minimum of one full year of data will be collected; however, monitoring will continue up to construction and immediately thereafter through the prescribed monitoring period.

Precipitation and Climate: Data for monthly average rainfall and weather conditions will be tracked through the monitoring period, to identify if other data collected is within "normal" conditions for the site, or representative of wetter, drier, hotter, or colder conditions than normal.

At the MBI stage, this data will be analyzed and a proposed design will be formulated for agency review. The work plan will then continue through the MBI process and only be constructed following agency approval of the MBI and receipt of all necessary state, federal and local permits. No phasing of construction or bank development is proposed at this time.

*j. Reference Information*

Appendix A includes mapping of the following resources: National Wetland Inventory and State Wetland maps (Figure 4), NRCS soil surveys (Figure 6), 7.5-minute USGS map (Figure 7), and 8-digit HUC map (Figure 2). These are overlaid with appropriate watershed and site aerial photos.

*k. Jurisdictional Determination*

A JD Request Form has been submitted (Appendix B) and a meeting has yet to be scheduled. An approved JD will be required to move this site forward to the MBI phase.

*l. Stream Order and Type/ Wetland Cowardian Types*

The Wetland Delineation Report is presented in Appendix B. This report details all of the stream and wetland resources found on the site.

## 9. Assurance of Sufficient Water Rights

*a. Relationship with Adjacent Resources and Maintenance of Rights and Connection*

Adjacent surface water resources which flow onto the project site come from property owned by the landowner. As the site represents the closest drainage path, the connection with these resources is anticipated to be maintained in perpetuity.



Downstream of the site, a grade control may be necessary to maintain the static water elevation on ditches leaving the site to ensure that head cuts are not perpetuated upstream from irresponsible ditch maintenance practices occurring offsite. These control practices are anticipated to be relatively minor, sustainable, and require little if any future maintenance activities to ensure their effective use.

*b. Hydrologic Disturbance Outside the Sponsor's Control*

Multiple surface water sources occur under county roads adjacent to the project site. These are for the purposes of road drainage. Their drainage area comes directly from lands owned by the property owner; therefore, it is assumed that these will continue to serve as surface water input in the future. The County may modify structural controls of this water, but the site is still on the receiving side, and it is anticipated that even with county modification of these pipes, water will still enter the site. As an added assurance, the site design will have strong groundwater influence to limit any potential disturbance from surface water manipulation.

Signage and coordination with the county will be required as a long-term management assurance to ensure that county maintenance does not alter the site. Sustainable drainage practices may be incorporated into the design to limit the future need for county maintenance. These features must be examined at the design phase with topographic data to support them.

*c. Structural Water Management Requirements*

Limited structural control of water resources is anticipated for the project site. Some controls may be necessary to ensure flood control and maintenance of drainage of adjacent county roads. Following topographic survey and design, these elements will be discussed with the IRT, and appropriate means of management for long-term control will be proposed. It is the preference of the sponsor to not use artificial structural controls if possible, however it would be premature to preclude their use this early in the design process.

*d. Water Sources and Losses*

Water sources to the site include groundwater, overland surface flows, and precipitation. Losses at the site include seasonal drop of the groundwater table, evaporation, evapotranspiration, and surface flow through draining mechanisms leaving the project site.

*e. Hydroperiod*

Hydroperiods proposed throughout the wetland are intended to vary, yielding maximum habitat diversity. Hydroperiods must at a minimum meet that necessary to be deemed jurisdictional wetland as a primary goal. Other portions of the site will be

designed to vary the hydroperiod to occur at differing durations and periods of the year; such diversity is invaluable in fostering habitats for herpetofauna.

*f. Contributing Drainage Areas*

Contributing drainage areas are shown in Appendix A, Figure 1. The drainage area contributing to the Wye River is 43 acres, the contributing drainage area to the Miles River is 12 acres. This estimate is based off of available contour information and will be refined with detailed topographic survey collection.

## 10. Monitoring, Maintenance Plan, and Performance Standards

Often in mitigation, an extended time period is used as a surrogate for monitoring quantifiable and measurable goals for the functions and values of the restored systems. The Bank Sponsor proposes a standard 10-year monitoring path to demonstrate the functions and values of the restored wetland and stream habitats coupled with specific monitoring criteria to be met at annual milestones. However, starting in Year 5, if performance standards are met for two consecutive years, all remaining credits are proposed for release. The Bank Sponsor, upon discovery of the restored system not meeting their criteria, would have the option to extend the period and/ or provide an Adaptive Management Plan. The IRT would be notified and appropriate steps to meet the approved success criteria coordinated as needed.

Monitoring will be used to determine maintenance needs. Unanticipated outcomes observed during monitoring events will be reported as observed to the IRT for use in determining maintenance and adaptive management needs. It is understood that failing to report these occurrences in a timely manner may result in loss of functions and values of the restored, enhanced, or preserved systems.

Top level functions are anticipated to be part of the monitoring criteria with goal attainment linked to credit release. As these functions may require multiple seasonal monitoring efforts, the site is expected to be monitored several times per year with these findings summarized in annual reports along with the raw data. The final monitoring standards will be determined in conjunction with the IRT at the MBI stage of the regulatory process.

Following credit release, a Long-Term Monitoring plan will be implemented. This plan will be conducted by the long-term steward and will be agreed upon by the IRT during the MBI phase.

## 11. Adaptive Management

Adaptive management procedures accompanying a robust maintenance plan will ensure the successful implementation of restoration and enhancement work at the project site. The details of this plan will be determined in the MBI stage of the regulatory process but

will accompany the monitoring activities at the site which are anticipated to be multiple times per year. The IRT will be notified of any issues which occur through monitoring and anticipated adaptive management for unanticipated outcomes at the site. The IRT will approve all adaptive management measured prior to their implementation.

## 12. Other Information

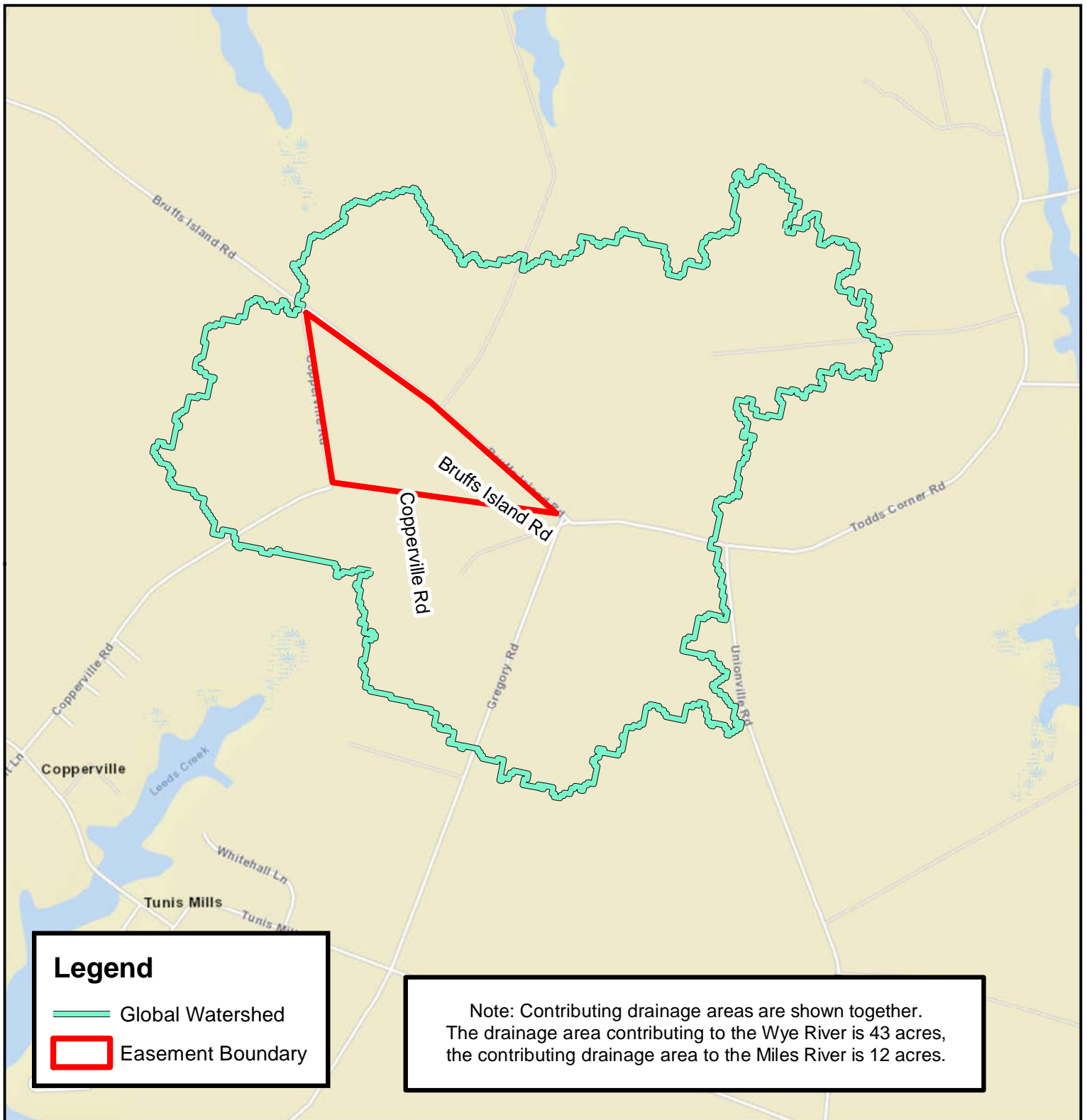
### Appendix A

- Proposed Wye Mitigation Bank Drainage Area Map (Figure 1)
- Proposed Wye Mitigation Bank 8-Digit HUC Watershed Map (Figure 2)
- Proposed Wye Mitigation Bank Proposed Mitigation (Figure 3)
- Proposed Wye Mitigation Bank Existing Features Map (Figure 4)
- Proposed Wye Mitigation Bank Service Area Map (Figure 5)
- Proposed Wye Mitigation Bank Soil Map (Figure 6)
- Proposed Wye Mitigation Bank USGS 7.5' Topographic Map (Figure 7)
- Proposed Wye Mitigation Bank Vicinity Map (Figure 8)
- Proposed Tilghman Mitigation Bank Impacted Features (Figure 9)
- Proposed Draft Mitigation Banking Conservation Easement



### Appendix B (Not for Public Notice)

- List of Adjacent Landowners
- Executed Option Agreement
- Title Report
- Title Insurance
- Wetland Delineation Report
- JD Request Form
- Trilogy Letters
- Other Relevant Correspondence

## Appendix A



**Legend**

-  Global Watershed
-  Easement Boundary

Note: Contributing drainage areas are shown together. The drainage area contributing to the Wye River is 43 acres, the contributing drainage area to the Miles River is 12 acres.

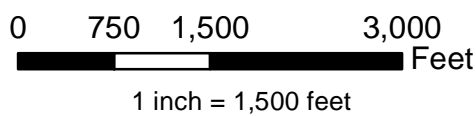


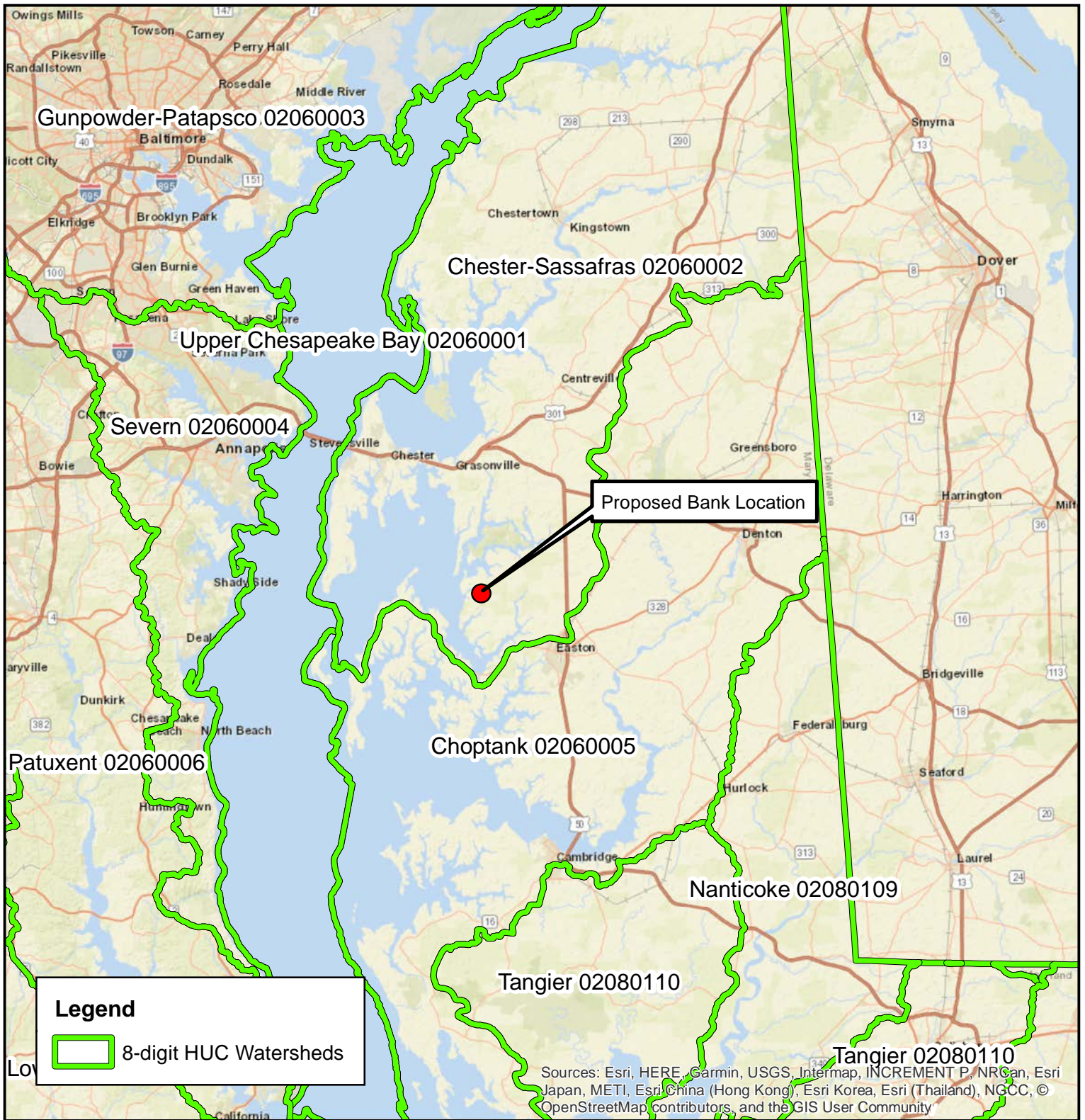
**Figure 1: Proposed Tilghman Mitigation Bank Drainage Area Map**

Talbot County, Maryland

Date: July 2018

Source: ESRI, USGS





**Figure 2: Proposed Tilghman Mitigation Bank 8-Digit HUC Watershed Map**

Talbot County, Maryland

Date: July 2018

Source: ESRI, USGS

0 50,000 100,000 Feet

1 inch = 50,000 feet







MD IMAP, DoTT

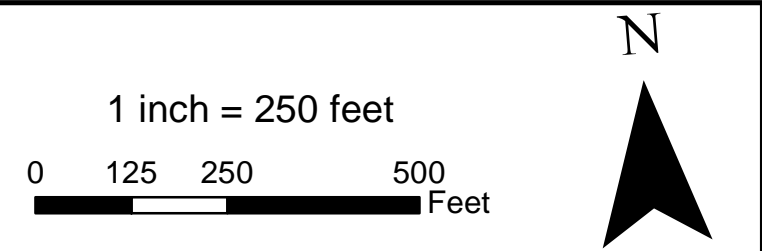


**Figure 3: Proposed Tilghman Mitigation Bank  
Proposed Mitigation**

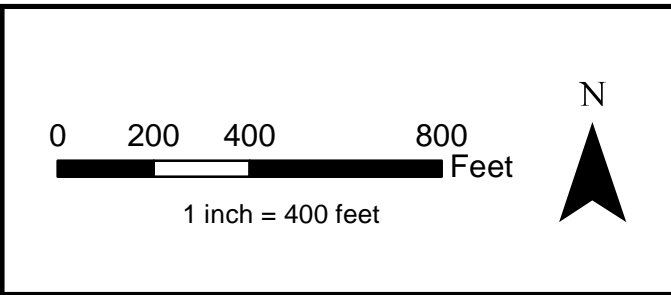
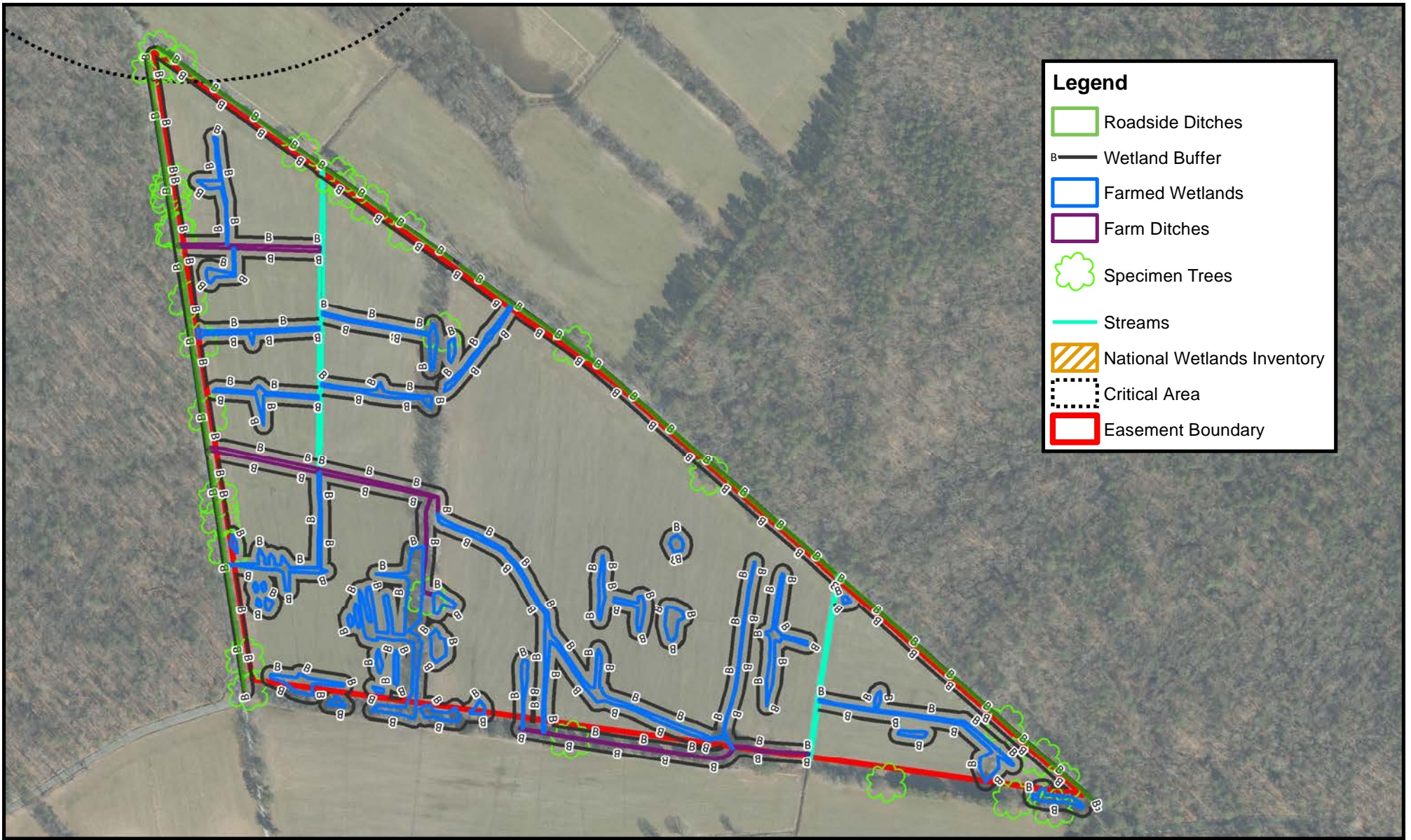
Talbot County, Maryland

Source: MD IMAP

Date: July 2018







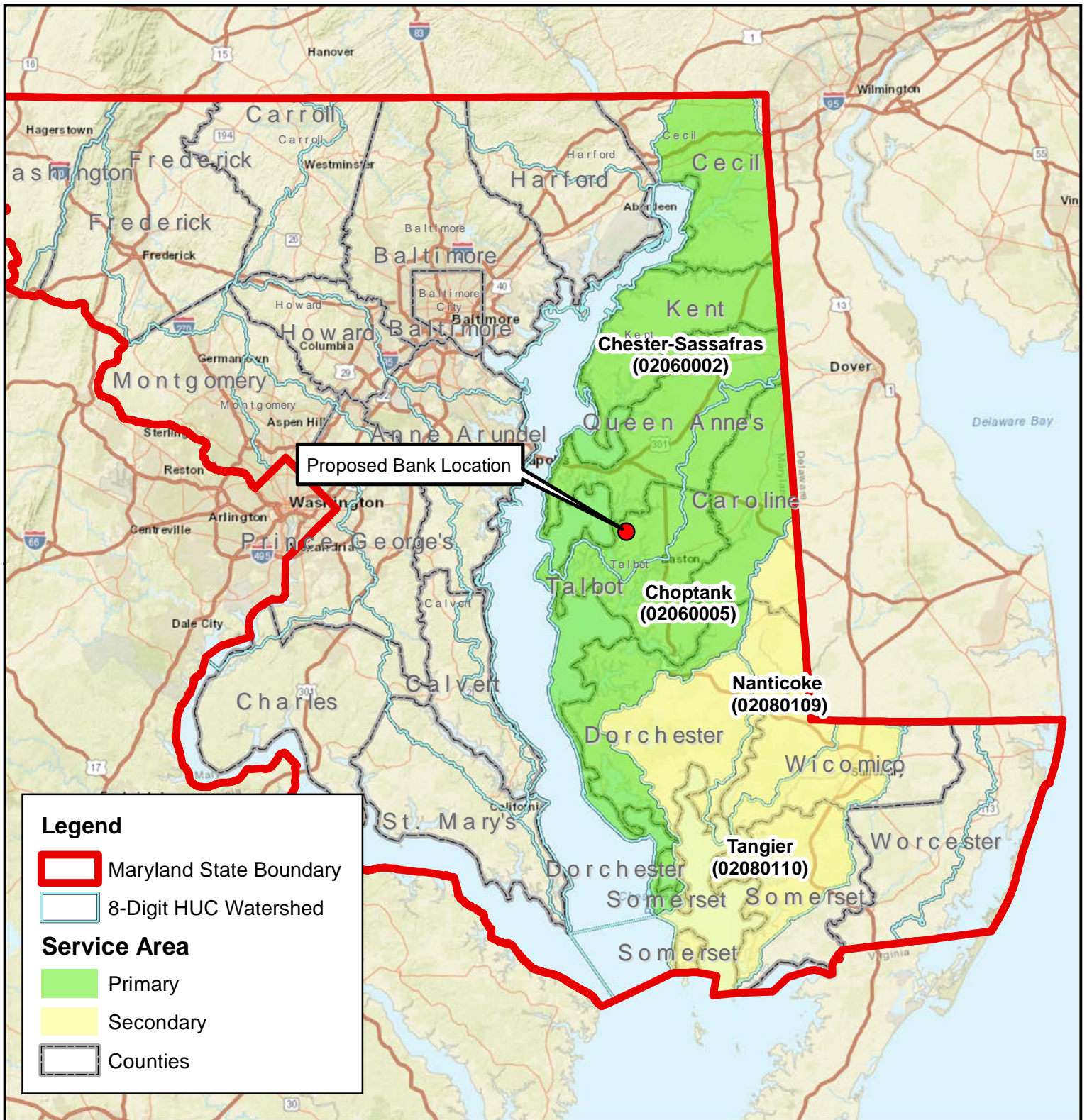
**Figures 4: Proposed Tilghman Mitigation Bank Existing Features Map**

Talbot County, Maryland

Date: July 2018

Source: MD IMAP, USGS, USFWS, DNR, FEMA



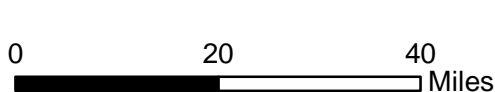


**Figure 5: Proposed Tilghman Property Mitigation Bank Service Area Map**

Talbot County, Maryland

Date: July 2018

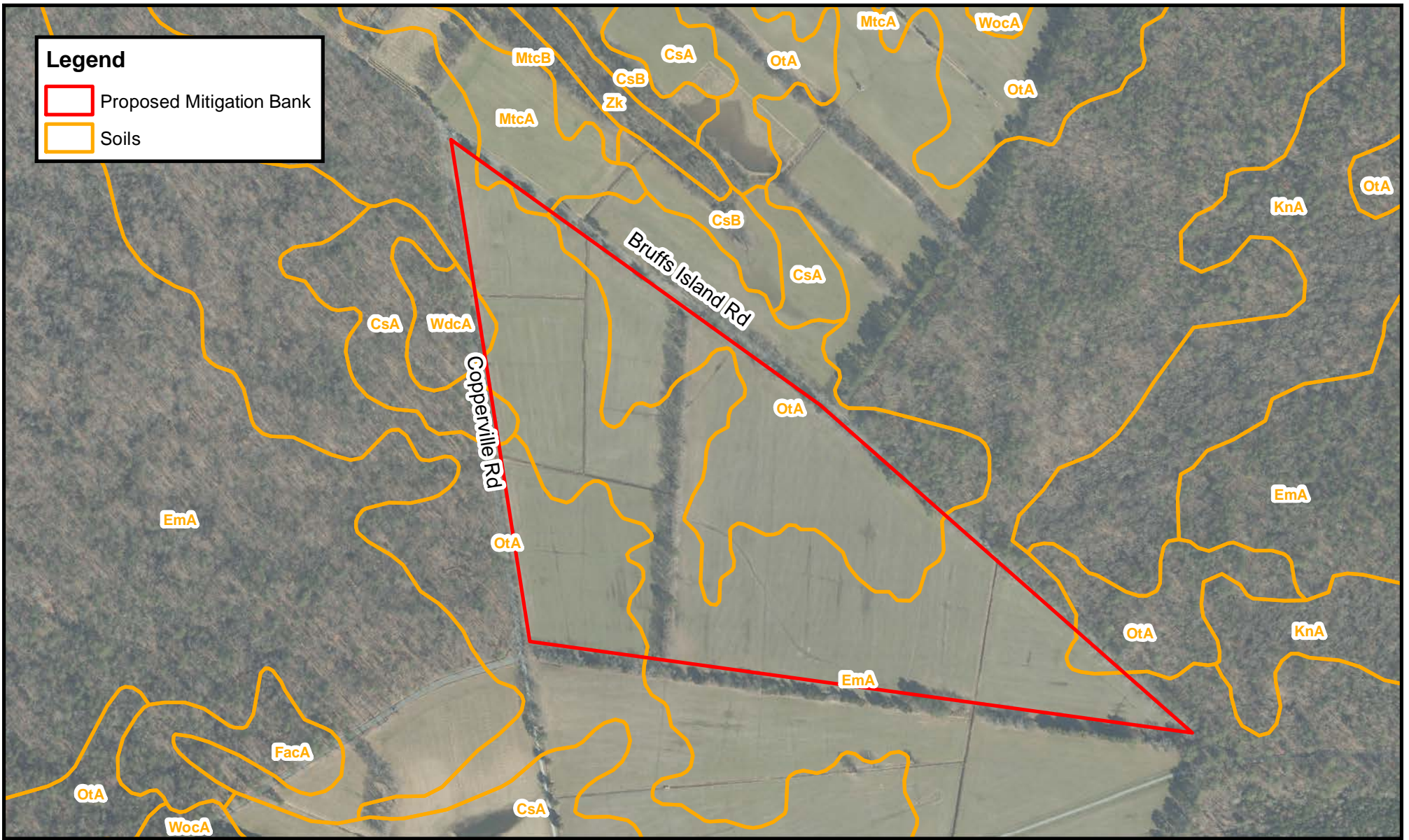
Source: ESRI, NHD, EPA



1 in = 20 miles







**Legend**

- Proposed Mitigation Bank
- Soils



0 250 500 1,000 Feet

1 inch = 500 feet

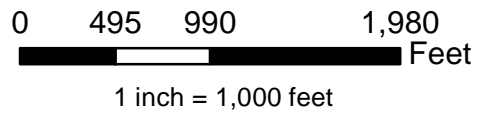
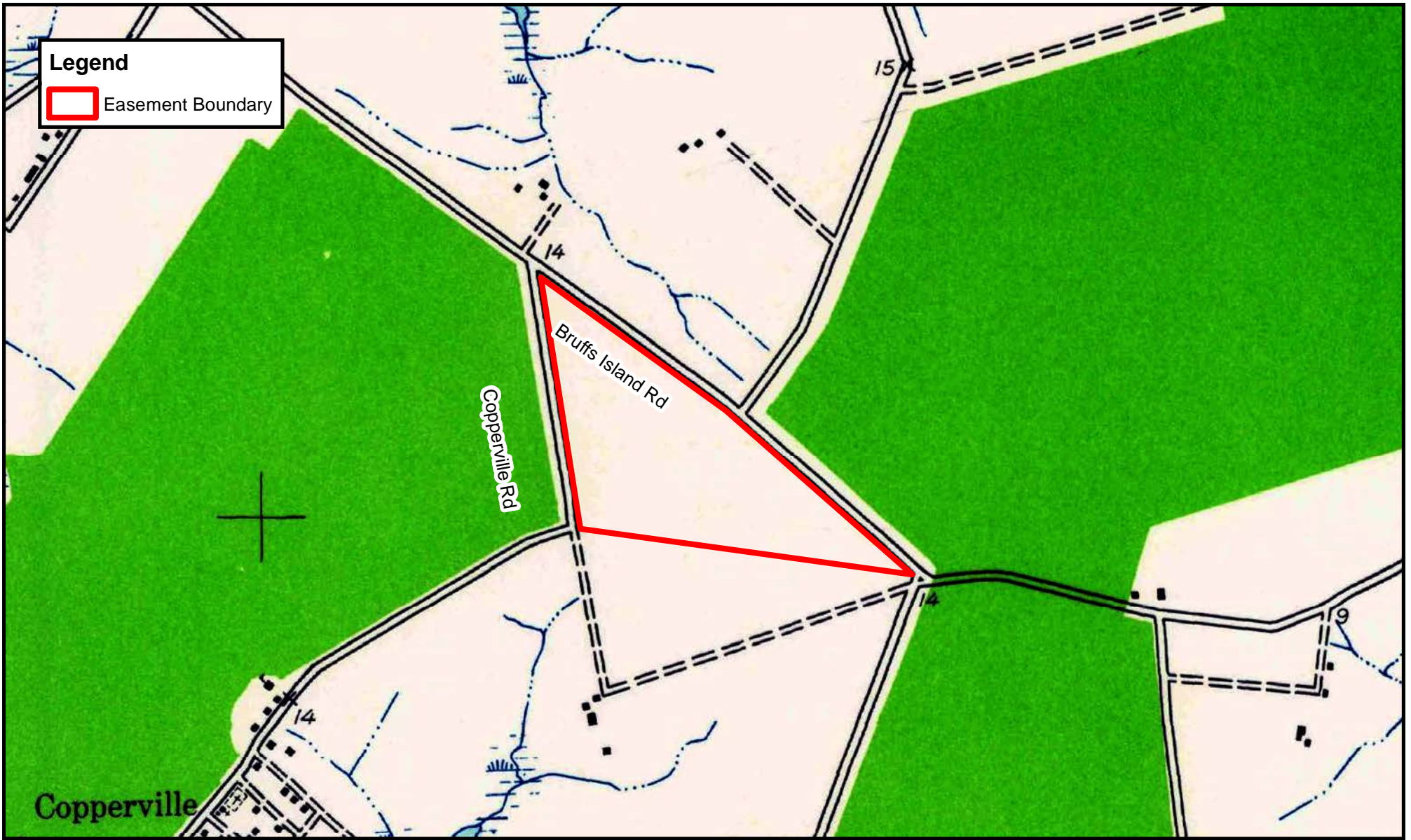
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**Figure 6: Proposed Tilghman Mitigation Bank Soil Map**

Talbot County, Maryland

Date: July 2018  
Source: MD IMAP, USDA NRCS

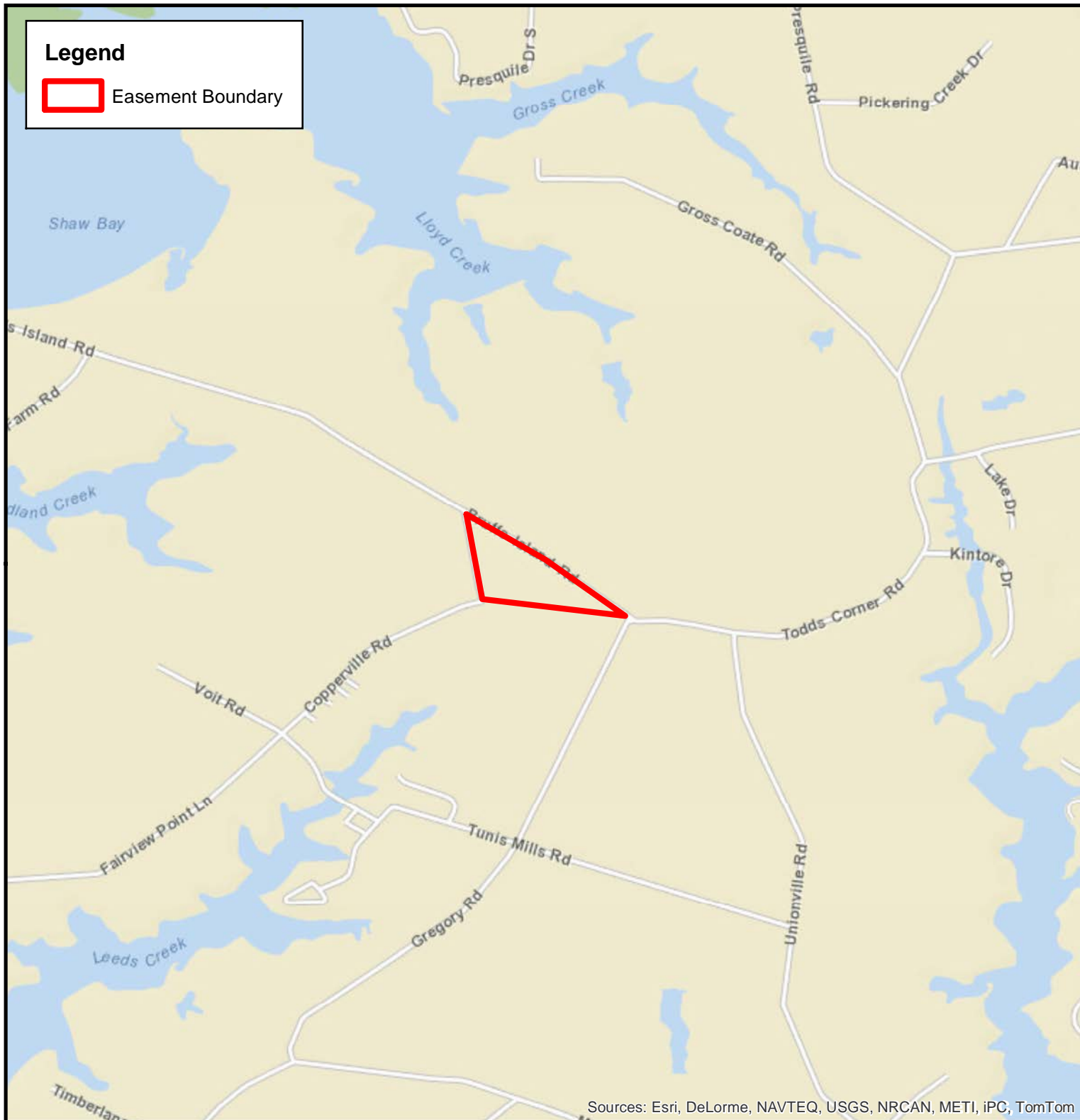




**Figure 7: Proposed Tilghman Mitigation Bank USGS 7.5' Topographic Map**

Talbot County, Maryland

Date: July 2018  
 Source: USGS Cockeysville Quadrangle

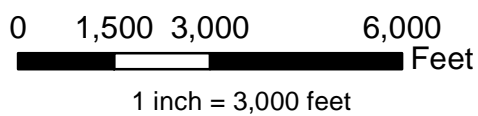


Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom



**FIGURE 8: PROPOSED TILGHMAN  
MITIGATION BANK VICINITY MAP**

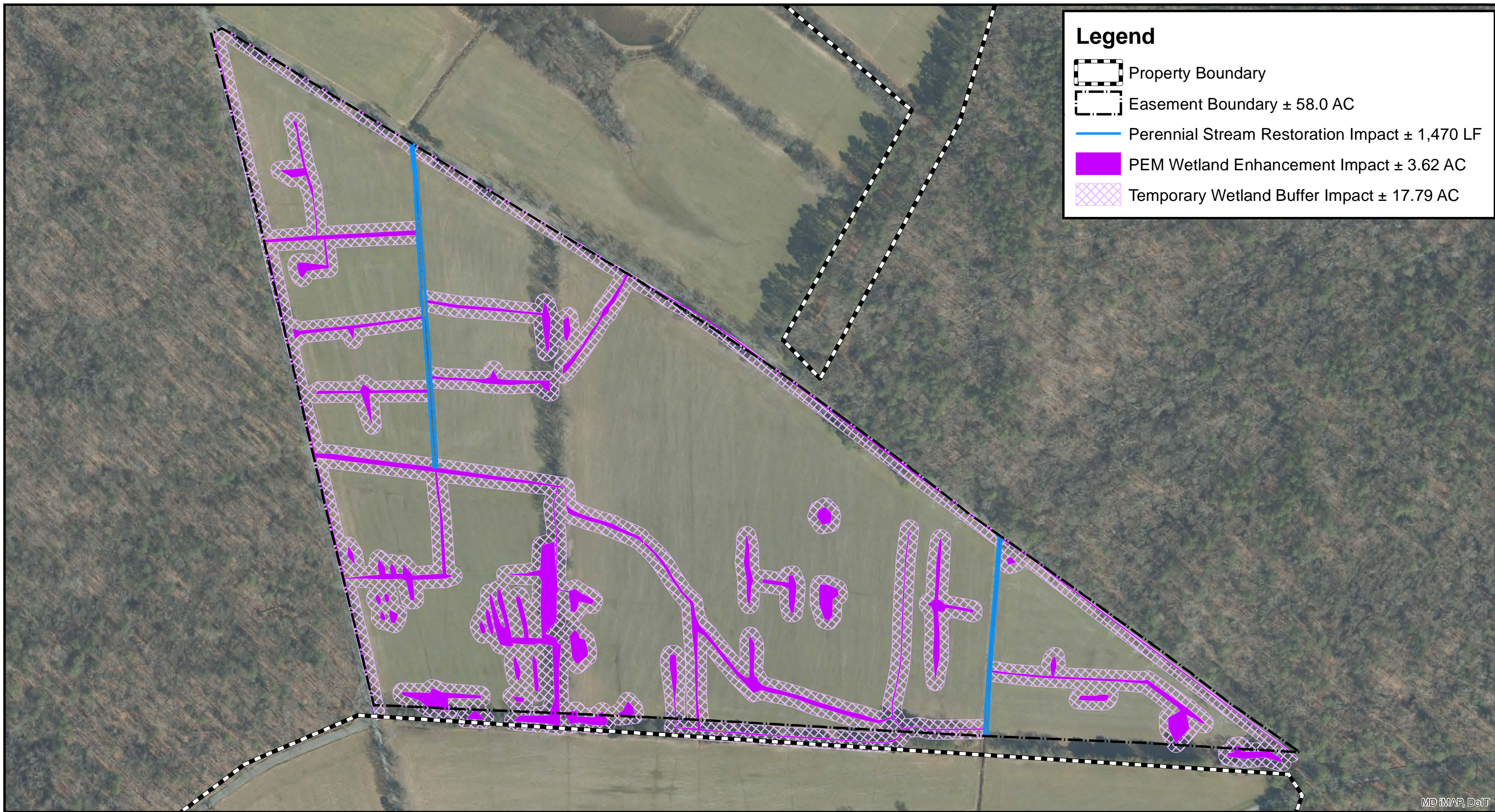
TALBOT COUNTY, MARYLAND








Date: July 2018

Source: ESRI





**Legend**

-  Property Boundary
-  Easement Boundary ± 58.0 AC
-  Perennial Stream Restoration Impact ± 1,470 LF
-  PEM Wetland Enhancement Impact ± 3.62 AC
-  Temporary Wetland Buffer Impact ± 17.79 AC

MD iMAP, DoIT

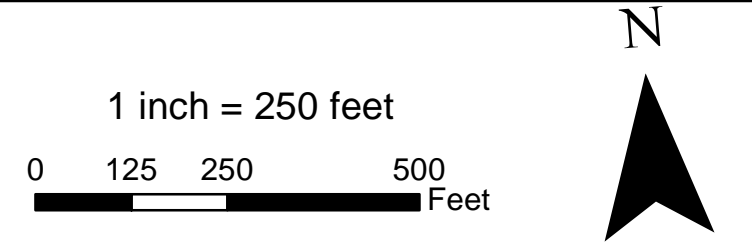


**Figure 9: Proposed Tilghman Mitigation Bank  
Impacted Features**

Talbot County, Maryland

Source: MD iMAP

Date: August 2018





*This Conservation Easement Template is a standardized document for Mitigation Banks in Maryland. Modifications to this template shall be identified using tracked changes and an explanation for those changes provided in a cover memorandum.*

*(Template Version Date: 24 Jan 2018)*

STATE OF MARYLAND  
COUNTY OF \_\_\_\_\_

### CONSERVATION EASEMENT

*(Insert Bank Name)*

*Use this version if the mitigation bank sponsor is the same entity as the Holder of the easement:*

THIS CONSERVATION EASEMENT (“Conservation Easement”) is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by [*insert full legal name of granting landowner*] \_\_\_\_\_ (“Grantor(s)”) in favor of [*full legal name of holder of conservation easement*] (“Holder”).

*Use this version if the mitigation bank sponsor is NOT the holder of the easement:*

THIS CONSERVATION EASEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by [*full legal name of granting landowner*] (the “Grantor”), in favor of [*full legal name of holder of the conservation easement*] (the “Holder”) and [*full legal name of the mitigation bank sponsor*] (the “Bank Sponsor”).

### RECITALS

WHEREAS, Grantor(s) is/are the fee simple owner(s) of certain real property (“Property” which shall include wetlands, any interest in submerged lands, uplands, associated riparian/littoral rights) located in \_\_\_\_\_ County, Maryland, more particularly [*describe tract to be preserved, including: 1) acreage, 2) a reference to recorded plat(s), or attach an approved permit drawing or site plan, and 3) any excluded property*] and shown in Exhibit A (i.e., metes and bounds of the Property), and Exhibit B (i.e., a scaled plat of the area subject to the Conservation Easement), and made a part hereof (“Conservation Area”); and

WHEREAS, this Conservation Easement is granted pursuant to the Mitigation Banking Instrument (“MBI”), by and between \_\_[*insert Bank Sponsor full legal name*] (“Bank Sponsor”), the Grantor and Holder, and intend that the Conservation Area will be used as a mitigation bank to be known as the [*insert Bank Name*], Department of the Army Action ID [*insert action ID number for the MBI*] approved by the Interagency Review Team (the “IRT”), which consists of the Baltimore District, U.S. Army Corps of Engineers (the “Corps” or “Baltimore District,” to include any successor agency); the U. S. Environmental Protection Agency (“EPA”); the U.S. Fish and Wildlife Service (“USFWS”); the U. S. National Oceanic and Atmospheric Administration (“NOAA”); the Maryland Department of the Environment (“MDE,” to include any successor agency); the Critical Area Commission (“CAC”); the Maryland Historic Trust (“MHT”); and the Maryland Department of Natural Resources (“DNR”); and

WHEREAS, in recognition of the continuing benefit to the Property, and for the protection of waters of the United States and/or the State of Maryland and scenic, resource, environmental, and general property values, the Grantor and Holder have agreed to place certain restrictive covenants on the Property, in order that the Conservation Area shall be retained and maintained in perpetuity predominately in accordance with the vegetative and hydrological conditions described in the performance standards of the MBI for \_\_\_\_\_ Bank; and

WHEREAS, pursuant to the MBI, the *Bank Sponsor* proposes to create, maintain, and preserve a high quality, self-sustaining natural aquatic system and buffer located on the Conservation Area; and

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

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

WHEREAS, the Bank Sponsor(s) desire(s) to comply with the conditions of the MBI by imposing this Conservation 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 United States and/or waters of the State that were permitted by the Corps and/or MDE; and

WHEREAS, the Corps and MDE are third-party beneficiaries under this Conservation Easement.

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 State of Maryland, Grantor does agree to the following terms and conditions, which shall run with the land and be binding in perpetuity and forever on all heirs, successors, assigns (they are included in the terms, "Grantor," below), lessees, or other occupiers and users.

1. Covenants and Restrictions. Neither the Grantor(s), nor any subsequent owner or owners of the Conservation Area or any portion thereof, shall undertake or cause to be undertaken within or upon the Conservation Area within the Property, as described in (*Recitals and/or the site plan attached*), any of the following:

a. Removal, excavation, or dredging of soil, sand, gravel, minerals, organic matter, or materials of any kind;

b. Changing existing drainage characteristics, sedimentation patterns, flow patterns, or flood retention characteristics;

c. Disturbance of the water level or water table by drainage, impoundment, or other means;

d. Dumping, discharging of material, or filling with material, including the driving of piles and placing of obstructions;

e. Grading or removal of material that would alter existing topography;

**f. Destruction or removal of plant life that would alter the character of a nontidal wetland, or introduction of exotic species;**

**g. Agricultural or forestry activities, such as aquaculture, plowing, tillage, cropping, seeding, cultivating, and grazing and raising of livestock, sod production, harvesting for production of food and fiber products. Forestry activities mean planting, cultivating, thinning, harvesting, or any other activity undertaken to use forest resources or to improve their quality or productivity;**

**h. Use of off-road vehicles and motor vehicles;**

**i. Destruction or alteration of the Conservation Area EXCEPT:**

**(i) Alteration necessary to construct the mitigation areas and associated improvements proposed to be built by \_\_\_\_\_, or its successors, and/or assigns, as approved in the mitigation plan approved by the Permits;**

**(ii) Alteration necessary to ensure the success of the mitigation areas including monitoring, reconstruction, maintenance, or repair of the constructed mitigation areas, as approved by the Corps and MDE;**

**(iii) Removal of vegetation when approved by the Corps and MDE and conducted for removal of noxious or invasive plants;**

**j. Utilizing a non-reporting Nationwide Permit or State Programmatic General Permit under Section 404 of the Clean Water Act or state general permits under MDE regulations to impact any Water of the U.S. on the Property. Notification shall be required to the Corps and MDE for the use of any Nationwide Permit, State Programmatic General Permit, or Regional Permit.**

*[if reference is made to the Permit, or to a mitigation plan approved by the Permit, all exceptions (including regarding buffer areas) must be specifically spelled out in the Permit or plan; also, additional, specific, exceptions may be listed in this paragraph, e.g., fire or wildlife management plans, boardwalks, etc].*

**2. Duration and Amendment.** The covenants and restrictions listed herein are created pursuant to the Annotated Code of Maryland, Real Property Article § 2-118 and shall run with and bind the Property, and be binding on the Grantor(s), its/their personal representatives, heirs, successors and assigns, unless and until terminated or modified by the Corps, MDE, or other Federal, State, or County agencies which have the legal authority to enforce these covenants and restrictions by regulations, permit, or agreement. The failure of the Corps, MDE, or other such agencies to enforce the provisions of this Conservation Easement shall not be deemed a waiver of any rights created hereunder. After recording, this Conservation Easement may only be amended by a recorded document signed by the Corps, MDE and Grantor(s). The recorded document, as amended, shall be consistent with the Baltimore District and MDE model conservation easements at the time of amendment. Amendment shall be allowed at the discretion of the Corps and MDE, in consultation with resource agencies as appropriate, and then only in exceptional circumstances. Mitigation for amendment impacts will be required pursuant to Baltimore District and MDE mitigation policy at the time of amendment. There shall be no obligation to allow an amendment. The Corps and MDE shall be provided with a 60-day advance written notice of any legal action concerning this Conservation Easement or of any action to extinguish, void, or modify this Conservation Easement in whole or in part. This Conservation Easement is intended to survive foreclosure, bankruptcy, condemnation, or judgments affecting the Property.

**3. Notice to Government.** Any permit application, or request for certification or modification, which may affect the Conservation Area, made to any governmental entity with authority over wetlands or other waters of the



United States and/or waters of the State, shall expressly reference and include a copy (with the recording stamp) of this Conservation Easement.

**4. Reserved Rights.** It is expressly understood and agreed that this easement does not grant or convey to members of the general public any rights of ownership, entry or use of the Conservation Area. This easement is created solely for the protection of the Property, and for the consideration and values set forth above, and Grantor(s) reserve(s) the ownership of the fee simple estate and all rights appertaining thereto, including without limitation the rights to exclude others and to use the property for all purposes not inconsistent with these restrictive covenants.

**5. Monitoring and Maintenance.** The Holder, Bank Sponsor, Long-Term Steward (as defined in the MBI), and their authorized agents shall have the right to enter and go upon the lands of Grantor(s) to monitor and manage the Conservation Area to ensure compliance with the Mitigation Site Plan (“Mitigation Site Plan”) and Long-Term Management Plan (“Approved Long-Term Management Plan”) approved in the MBI. This may include, but is not limited to, completing annual monitoring, controlling invasive species, planting native vegetation, repairing signs/fences, and repairing erosion. The Holder, Corps, MDE, IRT, and its/their authorized agents shall have the right to enter and go upon the lands of Grantor(s) to inspect the Conservation Area, to verify compliance with the Mitigation Site Plan and Approved Long-Term Management Plan.

**6. Compliance Inspections.** The Holder, Bank Sponsor, Long-Term Steward, Corps, MDE, IRT, and its/their authorized agents shall have the right to enter and go upon the lands of Grantor(s), to inspect the Conservation Area and take actions necessary to verify compliance with these restrictive covenants.

**7. Enforcement.** The Grantor(s) grant(s) to the Holder, Bank Sponsor, Corps, the U.S. Department of Justice, and/or MDE, 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 this Conservation Easement; provided, however, that no violation of this Conservation Easement 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 and MDE to modify, suspend, or revoke the Permits.

**8. Property Transfers.** Grantor(s) shall include the following notice on all deeds, mortgages, plats, or any other legal instruments used to convey any interest in the Property and or Conservation Area (failure to comply with this paragraph does not impair the validity or enforceability of this Conservation Easement):

**NOTICE:** This property Subject to Conservation Easement Recorded at [insert book and page references, county(ies), and date of recording].

Should the Property be transferred, sold, or conveyed, be subject to foreclosure, bankruptcy, or transferred by any other means whatsoever, the Grantor or Bank Sponsor shall immediately notify the Corps in writing..

**9. Marking of Property.** The perimeter of the Conservation Area shall at all times be plainly marked by permanent signs saying, “Protected Natural Area,” or by an equivalent, permanent marking system.

*[Generally, a surveyed, recorded plat is required; however, at the discretion of the Corps and MDE, an approved permit drawing or site plan attached to this Conservation Easement may suffice]*

**10. Consent of Lender and Trustee.** Grantor(s) is/are the maker(s) of a note dated \_\_\_\_\_ secured by a deed of trust dated \_\_\_\_\_ from the Grantor(s) 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.

11. **Recording.** The Grantor(s) and Holder agree(s) to record this Conservation Easement in the Land Records of the County and provide the Corps and MDE with proof of recordation within thirty (30) days of recordation. A plat depicting the boundaries of the Conservation Area subject to this Conservation Easement shall be recorded in the deed records office for each county in which the Property is situated prior to the recording of this Conservation Easement. The plat(s) *is/are* recorded at [*include book and page references, county(ies), and date*].

12. **Separability Provision.** Should any separable part of this Conservation Easement be held contrary to law, the remainder shall continue in full force and effect.

13. **Inaccurate or Fraudulent Information.** Should an easement, right or lease on or to the Property not shown on the survey or listed in this Conservation Easement and prior in time and recording to this Conservation Easement, or unrecorded, be exercised in such a manner that it conflicts with or voids the prohibited uses of the Property set out in this Conservation Easement, then the Grantor(s) shall be responsible for providing alternative compensatory mitigation in such amounts and of such service and function as the Corps and MDE or any enforcer of this Conservation Easement shall determine in accordance with the Clean Water Act and/or the Maryland Nontidal Wetlands Act.

14. **Eminent Domain.** If the Property is taken in whole or in part through eminent domain, the consequential value of the Conservation Area protected by the Clean Water Act and/or the Maryland Nontidal Wetlands Act is the cost of replacement of the conservation functions, services and values with other property in the same watershed.

15. **Merger.** The doctrine of merger shall not operate to extinguish this Conservation Easement if the Conservation Easement and the Property become vested in the same party. If the doctrine of merger applies to extinguish the Conservation Easement then, unless Grantor, Holder, the Corps, and MDE otherwise agree in writing, a replacement conservation easement or restrictive covenant containing the same protections embodied in the conservation easement shall be recorded against the Conservation Area. The Grantor may suggest a new conservation easement holder and upon approval by the Corps and MDE, grant a conservation easement protecting the Conservation Area.

IN WITNESS WHEREOF, the Grantor(s) *and Holder has/have* duly executed this Conservation Easement the date written above.

IN THE PRESENCE OF:

Grantor(s)

\_\_\_\_\_

By: \_\_\_\_\_

[*type name of witness under signature line*]

[*type name of Grantor(s) under signature line*]

*Its:*

STATE OF MARYLAND  
COUNTY OF \_\_\_\_\_

PERSONALLY appeared before me \_\_\_\_\_, the undersigned witness, and made oath that he/she saw the within named \_\_\_\_\_ [, by \_\_\_\_\_, its \_\_\_\_\_,] sign, seal and as

*his/her/its* act and deed, deliver the within named Conservation Easement; and the *he/she* with the other witness named above witnessed the execution thereof.

\_\_\_\_\_  
[*type name of Notary Public under signature line*]

**SWORN to and subscribed before me**  
This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**NOTARY PUBLIC FOR**  
**My Commission Expires:**

**IN THE PRESENCE OF:**

**Holder**

\_\_\_\_\_  
[*type name of witness under signature line*]

By: \_\_\_\_\_  
[*type name of Holder under signature line*]

*Its:*

**STATE OF MARYLAND**  
**COUNTY OF**

**PERSONALLY** appeared before me \_\_\_\_\_, the undersigned witness, and made oath that *he/she* saw the within named \_\_\_\_\_ [by \_\_\_\_\_, *its* \_\_\_\_\_,] sign, seal and as *his/her/its* act and deed, deliver the within named Conservation Easement; and that *he/she* with the other witness named above witnessed the execution thereof.

\_\_\_\_\_  
[*type name of Notary Public under signature line*]

**SWORN to and subscribed before me**  
This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**NOTARY PUBLIC FOR**  
**My Commission Expires:**

I hereby certify this conservation easement was prepared by or under the supervision of \_\_\_\_\_, an attorney admitted to practice by the Court of Appeals of Maryland.

\_\_\_\_\_