# Prospectus Document

This information list has been prepared to assist bank sponsors, their agents, and other interested parties with the successful development of a complete prospectus, pursuant to the requirements provided in the mitigation rule. The bank prospectus should be sufficiently detailed to assess the technical feasibility of the bank development plan and to support informed comment regarding the bank's operational objectives. The prospectus should be organized in the following format as described in the mitigation rule to facilitate the review of the proposed project by the IRT.

## 1. BASIC INFORMATION

a. Property owner interest - *include a letter from the property owner indicating their interest in developing a mitigation bank. The letter should indicate whether the sponsor owns the land or is acquiring an interest in the proposed bank site (fee simple acquisition, easement, etc.)*

Secured option agreements or other property operational agreements have been obtained from the landowners that clearly outline the holder's intention of developing a mitigation bank. Further, the option agreements outline that the sponsor will be securing a conservation easement upon approval of the mitigation banking instrument.

b. Mitigation bank name, location, and vicinity map - *include proposed mitigation bank name, location (address and latitude/longitude), and 8 ½" by 11" vicinity map.*

The Mill Swamp Mitigation Bank is located on Mill Swamp in Charles County. The project site is in the Middle Potomac-Anacostia-Occoquan Service Area (SA) identified as Hydrologic Unit Code (HUC 020700010) in the Southeastern Plains Level III ecoregion. The project midpoint location is 38° 39' 34" N, 77° 04' 42 W. See Appendix A for vicinity map and service area map.

c. Bank purpose and bank type - *describe purpose of the bank and its relationship to Corps, Maryland Department of the Environment (MDE), and other involved regulatory programs and authorities (e.g., to provide compensatory wetland mitigation for unavoidable impacts to nontidal wetlands authorized under Section 404 of the Clean Water Act.) and type of mitigation bank (e.g., single client, commercial use, etc.).*

The primary purpose of the bank is to provide commercial compensatory stream and wetland mitigation credits for unavoidable impacts to streams and nontidal wetlands authorized under Section 404 of the Clean Water Act. Other crediting types may be explored as secondary purposes through the development of the site-specific mitigation banking instrument.

d. Bank sponsorship, landowner, and consultant contact information - *provide contact information (name, address, phone, fax, email, etc.) for bank sponsor, landowner, and consultant if all unique.*

Landowners

Carol Witter
[redacted]

Poplar Branch LLC
[redacted]

Suzanne Norris
[redacted]

Francis C. Barnes
[redacted]

Kyle Tippett
[redacted]

Sponsor/Consultant
Johnson, Mirmiran, & Thompson, Inc. (JMT)
40 Wight Avenue
Hunt Valley, MD 21030

Sponsor Project Manager
Jeremy Koser, P.E.
410-316-2360
jkoser@jmt.com

Lead Designer
Mr. Jim Morris, P.E.
717-891-2239
jmorris@jmt.com

e. Adjacent property owners - *provide names and mailing addresses of adjacent property owners and appropriate local officials (for public notice mailing).*

See Appendix C for adjacent property owners' and local officials' contact information.

f. Agency coordination – *if available, include any reports and/or correspondence regarding historic properties, threatened or endangered species, and essential fish habitat.*
See Appendix B for agency coordination letters (Trilogy Letters).

## 2. OBJECTIVES OF THE MITIGATION BANK

a. Resource types proposed - *describe the resource type(s) (e.g., forested/scrub-shrub/emergent wetland, stream, open water, supporting upland/riparian buffer, etc.) that are proposed. Include an 8½" by 11" plan view drawings showing the proposed*

*mitigation project as if you are looking straight down on it from above. Clearly show the entire project site, existing waterbodies, wetlands, 25-foot wetland buffers, 100-year floodplains, and proposed limits of work, including impacts to these resources. Depict and identify the areas of proposed wetland and waterway restoration, enhancement, establishment, and/or preservation.*

The proposed resource types will be stream restoration as credited through the most current USACE Baltimore District Maryland Stream Mitigation Framework Version 1, dated October 2022 (MSMF Calculator) and wetland enhancement, restoration, and creation with a minimum thirty-five-foot resource buffer around all restored resources. Although no preservation activities are proposed in the prospectus, they may be proposed later pending resource investigations at the site. Larger buffers are likely to be instituted to protect stream resources and existing high-quality wetlands. The project is split into three sections on the west side of Marshall Hall Road (MD 227), as follows:

- Poplar Branch, Barnes and Witter Properties – approximately 4.74-acre, 2.69-acre, and 5.71-acre easement areas respectively (13.14-acre total) which includes the main stem of Mill Swamp.
- Tippett and (2) Norris Properties - approximately 0.73-acre and 6.30-acre easement areas respectively (7.03-acre total) which includes the main stem of Mill Swamp.
- (2) Tippett Properties - approximately 10.38-acre easement area which includes an unnamed tributary to Mill Swamp.

See Appendix A, Mitigation Unit Map (MUM) for specific plans of proposed improvement types. Mitigation types are anticipated to be updated and revised through the design process.

b. Methods of proposed compensation and Quantities *- identify the methods of proposed compensation (e.g., restoration, establishment, enhancement, and/or preservation) used to establish the mitigation bank.*

All credit calculations follow IRT and MDE guidelines. Stream restoration credits have been derived using the MSMF Calculator and will be updated through the MBI process. All stream reaches are regarded as restoration, as stream enhancement and preservation are not proposed. Wetland credits have been calculated using customary ratios for preservation (10:1), enhancement (4:1), restoration (1:1) or creation (1:1). See table below for planned improvement sizes and credit totals.

| Stream Restoration | | | Credits |
|---|---|---|---|
| Stream Restoration Credits (FF) | | | 1,508 |
| **Wetland Credit Type** | **Size** | **Ratio** | **Credits** |
| Wetland Preservation (AC) | 0 | 10:1 | 0 |
| Wetland Enhancement (AC) | 13.05 | 4:1 | 3.26 |
| Wetland Restoration (AC) | 4.66 | 1:1 | 4.66 |
| **Wetland Total (AC)** | | | **7.92** |

c. Credit release schedule - include the proposed credit release schedule. Note that the final, approved credit release schedule will be identified in the mitigation banking instrument.

At this time the IRT Standard Release Schedule per the MDE guidance document, *"Nontidal Wetland and Stream Mitigation Bank/In-Lieu Fee Credit Release Schedule for Maryland, May 2, 2024"* is being proposed for this project. The Bank Sponsor, however, would like to continue to explore with the IRT the criteria necessary to achieve an Accelerated Release Schedule for this project during the MBI stage.

| **Stream and Wetland Mitigation Bank Site Milestones** | Credit Percentage Released | |
|---|---|---|
| | Preservation | Enhancement/ Restoration |
| 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% | 10% |
| 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% |
| After Year 10 and Performance Standards Met* | 0% | 20% |

## 3. MITIGATION BANK ESTABLISHMENT & OPERATION

a. Scope of work for site development - *summarize the scope of work proposed to accomplish site development. Include any proposed phasing of bank development.*

JMT is proposing the following data collection and other activities to accomplish the mitigation work:

Baseline Conditions Surveys:

*Forest and Canopy Evaluation:* Analysis of the existing forest resources on the site using Charles County Forest Standard Delineation protocols. This includes location of 18-inch diameter and greater trees, specimen trees, and near-bank canopy trees as flagged in the field. Canopy coverage of specific trees in critical locations will be evaluated for stream shading at midday and defined on a map.

*Wetland Delineation and Functions and Values Assessments:* Wetlands have been delineated per standard practices acceptable to USACE and MDE. Functions and values of existing and proposed wetland conditions will be evaluated through the New England Highway Methodology.

*Topographic Survey and Geologic Conditions Survey:* One-foot interval topographic survey will be completed for the site. As well as top of basal gravel through tile probe investigation and observation/survey of layers on existing stream banks. Utility investigation will be included following coordination with MISS UTILITY.

*Groundwater Monitoring:* Groundwater monitoring wells are proposed. Data collection will occur at the beginning of the MBI stage and continue for 1 year prior to construction.

*Precipitation and Climate:* Data for monthly average rainfall and weather conditions will be tracked using existing weather stations 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.

*Invasive Species Survey:* Invasive species will be identified concurrent with forest and wetland studies and targeted for control as part of the construction and long-term maintenance of the project.

*Fisheries and Benthos:* As this is a Use Class I stream, fisheries and benthos are anticipated to be warm water and tolerant species; therefore, regional data from the closest monitoring points will be used to characterize the fishery and benthic community. The use of eDNA may be utilized to provide information on the species

located at the project site. No specific goals relating to fishery or benthic lift are proposed to be measured at this time; however extensive addition of physical habitat and substrates is anticipated to be part of the restoration design. Pre and post construction MBSS data collection for macroinvertebrates and fish are proposed for the project and therefore functional lift goals can be reexamined during the MBI stage.

*Historic Resources*: The MIHP general information page is attached in Appendix B. Further coordination with the Maryland Historical Trust will be required to ensure that the proposed project impacts will not disturb potential archeologically sensitive areas. This has been confirmed by Maryland Historical Trust in a letter and can be found in Appendix B. Per standard protocols, if the discovery of resources on the site is made, MDE/MHT will immediately be contacted.

Design:
A mix of stream restoration approaches via natural channel design, floodplain reconnection, and process-based approaches are proposed for this site. JMT will prepare the design of the mitigation measures. These measures will be designed using best practices to accomplish ecological lift and maintain existing resources on the project site. Detailed alternatives and avoidance and minimization measures will be developed to accomplish these goals. Erosion and sediment control standards will be met, as well as design input and comments from the IRT. JMT proposes an on-board process with agencies which will include review comments at critical milestones. All plans will be signed and sealed by a Professional Engineer specializing in ecosystem restoration practices.

Construction:
To minimize loss of aquatic organisms, fish relocation and exclusion practices are proposed during construction. Work offline from the stream may be proposed to minimize pump-around practices and other practices which may dewater stream resources for long periods of time. A qualified contractor will be selected, with extensive expertise in the restoration of stream and wetland resources, as well as the appropriate specialized equipment to accomplish the work. Contractors will be overseen by a JMT construction specialist who is versed in best construction practices and the full intent of the design. JMT's principal designer of the project will have full oversight and stop-work capabilities to ensure regulations and design intent are met.

b. Pre-application meeting *- request a pre-application meeting with MDE and the Corps to discuss the Joint Permit Application process prior to or concurrent with the Prospectus submittal.*

The pre-application meeting will take place after the prospectus submittal. A request for the meeting will be made at that time.

c. Joint Permit Application - *submit a Joint Permit Application with the draft mitigation instrument. Alternatively, a Joint Permit Application should be submitted with the prospectus when a Department of the Army individual permit and public notice is needed for the proposed bank construction impacts to wetlands and waterways.*

An Application for Mitigation Bank Approval is being provided with the prospectus. A final JPA will be provided at the MBI phase, following a Preliminary Jurisdictional Determination (PJD) meeting and receipt of the approved PJD. Nationwide 27 authorization is anticipated for these activities. JMT will defer 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 services area - *provide an 8½" by 11" map showing the bank site location and its position within the limits of the proposed service area(s) (e.g., a U.S. Geological Survey 8-digit HUC code, county boundaries, etc.).*

See Appendix A for service area map.

b. Service area rational and justification - *provide a watershed-based rationale for determining the limits of the proposed service area.*

The proposed primary Service Area is the Middle Potomac-Anacostia-Occoquan Service Area (HUC 02070010). The secondary service area is the Lower Potomac Watershed (HUC 02070011). The secondary service area was chosen because of the proximity of the proposed bank's location within the sub-basin in relation to other watersheds. Additionally, the secondary service area has some of the highest stream and wetland impacts in the state, allowing the proposed bank to be available to compensate for these impacts. These service areas are conservative and based upon previous IRT precedence, however, the input of the IRT is welcome in the development of a potential tertiary service area and modifications to the primary and secondary service areas.

c. Mitigation in context of watershed needs and previous impacts - *describe how the proposed aquatic resource functions of the compensatory mitigation bank will address the functional needs of the watershed, ecoregion, physiographic province, or other geographic area of interest. Specify the aquatic resource functions to be restored or enhanced.*

This project yields multiple opportunities for restoration, creation, enhancement, and preservation. These opportunities include:

Wetland Restoration Opportunities: Initial site investigations have revealed the presence of hydric soils, and downcutting into historic layers of soil. JMT regards the coastal geology as largely typical of the region here and would seek to restore wetlands through a combination of channel uplift practices and removal of historic ditching, draining, and fill.

Wetland Enhancement Opportunities: Existing wetlands are present on the project site. Enhancement opportunities include grading of existing surface water wetlands to re-connect them to groundwater, lifting streams and groundwater to meet existing hydric or wetland areas, removing invasive species, and restoring native vegetation. Additional enhancement opportunities can be found by increasing the wetland buffer, removing trash and unnatural debris, and planting additional native species for pollinator benefits.

Wetland Preservation Opportunities: Wetland preservation will be evaluated for this project. In areas of previous beaver influence, high quality wetlands have existed in the recent past; these areas may be preserved if beaver return to the area or may be restored through process-based approaches to mimic beaver influence.

Stream Restoration Activities: Multiple habitat impairments are noted throughout the stream reaches. These include impacted or diminished benthic substrates, ditching, draining, entrenchment, lack of well-developed facet features, entrenchment, excessive transport of gravel sediments, and erosion. Extensive bare banks and erosion are also present, which limit in-channel temporal availability of habitat and quality of channel substrates. Restoration of wetlands would focus on improving sources of hydrology, adding roughness and plant diversity, and adding woody substrates. Restoration of the stream channel would focus on restoring facet features, in-channel habitats and substrates, and process-based approaches to improve floodplain connectivity and flow diversity. Floodplain reconnection approaches would be employed where additional hydraulic capacity is required.

Forest Mitigation Opportunities: Forest mitigation opportunities will be evaluated on the site as the design progresses. On-site mitigation for project impacts may be utilized, however additional upland crediting opportunities for reforestation may be available.

These practices will address historic losses of functions and values in the watershed, such as loss of floodplain wetlands, deforestation, and urbanization.

## 5. NEED AND TECHNICAL FEASIBILITY

a. Watershed description and viability of banking - *describe the overall watershed where the proposed mitigation bank is located (major tributaries, existing development trends, watershed needs, etc.)*

The Middle Potomac-Anacostia-Occoquan watershed (HUC 02070010) encompasses many urban and suburban areas of Charles, Prince George's, and Montgomery counties. This watershed has a significant potential need for this type of work, and due to urbanization, has a strong history of impact to streams and wetlands. Mitigation work here therefore meets historic needs for the replacement of these resources. The proposed bank will provide stream and wetland compensatory mitigation credits for those individuals or entities impacting these resources and using mitigation ratios greater than 1:1 for resources will aid in the restoration of historic impacts.

b. Site selection process - *describe the factors considered during the site selection process, including watershed scale features such as existing watershed plans, aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources, land use trends, ecological benefits, and compatibility with adjacent land uses.*

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 traditionally used to determine 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 Middle Potomac-Anacostia-Occoquan 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 these parcels were selected based on positive landowner feedback and agreement to the restoration practices proposed.

This approach 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.

JMT's site selection process demonstrates that project sites can be selected with restoration potential as the top priority. 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 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 historic agriculture and alterations to benefit agriculture.
- Promotes the management of this parcel as well as adjacent land parcels toward long-term conservation.

Attachment E of the MBI will provide additional detail with corresponding assessment details, individual design goals, supporting assessments, and implementation methods. A brief overview of site-specific details is provided below:

Sites between MD 227 and the Norris parcel have a narrow corridor and forested conditions. Work here would include grade control, addition of woody habitat substrates, and light uplift of the channel to connect the floodplain with the stream hydrology more regularly. This work must be balanced with the hydraulic constraints of roads, culverts, and private property boundaries. Considering these constraints, further study is required, including a topographic survey, and will be presented at the MBI stage for IRT evaluation.

The Norris site has potential for a connected floodplain wetland. Its soil appears more modified from agriculture, and the incision of each stream adjacent to it has reduced hydrology. As it is unforested, this site offers the least constraints for grading and the greatest potential for a combination of channel re-alignment away from residences, reforestation, and increased floodplain hydrology and flood storage. It occurs in the land between the confluence of the two streams and has a high potential for diverse hydrology, including surface water pocket wetlands which may have vernal characteristics. It has high potential for extensive buffers beyond the MDE standard width. It is downstream and connected hydraulically to the upstream parcels and has potential for wetland seed banks and connectivity to other resources.

The Tippett agriculture parcel is upstream and along the tributary which flows adjacent to the west boundary of the Norris property. It consists of a narrow-forested strip adjacent to a straightened stream. The open area is dominated by fescue and other pasture grasses. Grading the open areas and re-meandering the stream through the open locations appears to be the best approach to restoration. Floodplain grading of the open areas combined with uplift of the channel as the downstream-most portion of the site appears feasible and should yield similar hydrology as compared to the reference portions of the site.

This information is based on preliminary assessments and will be updated through the MBI process. It is recommended that MDE provide the MDWAM methodology as a tool for assessing existing and potential conditions of wetlands and restored wetlands for the project.

c. Local and regional benefits of the bank *- identify any local or regional benefits derived from 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 improved quantity of buffer to reduce the potential impacts from ongoing agricultural operations.

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 easement for their long-term beneficial management in perpetuity. This has benefits in encouraging a thriving restoration industry and working towards a clean and healthy Chesapeake Bay, which is of paramount regional importance.

If no action is taken, assume that watershed and site pressures and impairments will continue to act on the site as they do currently or with the same relative rates of change as historically seen. A continued decrease in fish and macroinvertebrate species and loss of mature tree canopy within the stream and wetland corridor would likely be observed.

d. Threats to the site and existing impairments *- identify any potential threats to the bank site or resource type.*

No additional constraints have been identified. Constraints will be evaluated through the design process, and site-specific remedies will be developed if necessary.

e. Proposed construction work to address site impairments *- describe the proposed construction work required to develop the bank and the feasibility of these techniques to develop the bank. Mitigation banks should be designed to be self-sustaining over time with minimal maintenance.*

Mitigation construction will require a full suite of ecosystem restoration construction processes, including grading with low ground pressure equipment, excavation, placement of structures with use of logs and stone, and the planting and management of vegetation. Vegetation management includes the use of herbicides with mechanical or hand spraying techniques, mechanical removal of vegetation and

the use of tree shelters and other measures to prevent herbivory. A detailed mitigation work plan will be presented at MBI stage.

6. **OWNERSHIP & LONG-TERM MANAGEMENT** - Identify the proposed ownership arrangements and long-term management strategy for the proposed mitigation bank.

   a. Long-term ownership, financial responsibility and use of site - *describe the proposed long-term ownership and use of the mitigation site once restoration activities are completed and the proposed project is determined to be successful.*
   b. *Long-term management responsibility party* - *identify the party responsible for long-term management.*
   c. Site protection mechanism - *identify the type of site protection mechanism to be secured by the Sponsor.*
   d. Holder of the site protection mechanism - *identify the "holder" of the site protection mechanism if a "holder" is required (e.g., conservation easement).*

   JMT is unaware of any planned changes in the ownership of these parcels. However, a conservation easement (Appendix A) will be secured and placed on the site. A non-profit entity will hold the easement. Currently, the intent is for the North American Land Trust (NALT) to be the easement holder. However, this will be confirmed and updated at the MBI stage. This entity will also be responsible for the long-term management of the site and will utilize an endowment for funding as approved through the mitigation banking instrument.

7. **SPONSOR QUALIFICATIONS** - Summarize the qualifications of the Sponsor to successfully complete the type(s) of mitigation project proposed, including information describing any past such activities by the sponsor that demonstrate experience in the restoration, establishment, preservation, or enhancement of aquatic resources.

   Johnson, Mirmiran and Thompson (JMT) based in Maryland will be the Bank Sponsor and provide all services required to complete the mitigation bank. Founded in 1971, JMT is a 100% employee-owned firm that provides a full range of multi-disciplinary environmental, engineering, planning, architectural, and related services to public agencies and private clients throughout the United States. JMT provides ecological restoration, wetland & stream mitigation, natural resource investigations & permitting, NEPA compliance, historic & archaeological resource investigations, hazardous materials services, resource monitoring, and public outreach services. JMT is currently providing these services for multiple natural resource permittee responsible and turnkey projects, as well as hundreds of transportation and water/wastewater projects, for Departments of Transportation, major wastewater utilities, and Federal agencies such as the National Park Service, Department of Defense (Army, Navy, Air Force, Marine Corps installations), Food & Drug Administration, National Aeronautics and Space Administration, U.S. Department of

Homeland Security, Customs and Border Control/Immigration and Customs Enforcement, and others.

8. **SITE SUITABILITY** - describe the ecological suitability of the site to achieve the objectives of the proposed mitigation bank, including the physical, chemical, and biological characteristics of the bank site and how that site will support the planned types of aquatic resources and functions.

a. Title report - *provide a preliminary title report indicating any easements or other encumbrances. Note, any liens and easements on the property that may affect a bank's viability will need to be resolved before a bank can be approved.*

Title Reports for all properties are provided in Appendix B

The following recorded easements were found for the properties:

**Tippett Agricultural Properties (Tax ID 07-014015 (north parcel) and Tax ID 07-014023 (south parcel))**

1. There are no easements encumbering either of the Tippett agricultural properties.

**Tippett Residential Property (Tax ID 07-049048)**

1. Easement was granted to Southern Maryland Electric Cooperative, Inc. for a distribution line right-of-way easement for a transformer and underground primary electric service to a structure. Recording reference Liber 1499 Folio 297, dated 8/13/1990.

**Norris Property – improved with dwelling (Tax ID 07-028059)**

1. Easement granted to Washington Gas Light Company for a 40ft. wide corridor for a gas pipeline. Recorded at Liber 186 Folio 625 on February 1, 1967. Note: This easement is located on the north side of Fenwick Road, therefore, it does not encumber any of the Norris property on the south side of Fenwick Road where stream & wetlands work is proposed.
2. Deed of Easement granted to Traci A. and David J. Norris for a driveway across a part of the property.

**Norris Property (Tax ID 07-049021)**

1. A Deed of Easement memorializes a portion of the driveway for a non-exclusive, perpetual easement for vehicular & pedestrian ingress & egress. Recording reference Liber 9441 Folio 488, dated 7/14/2016.

**Barnes Property (Tax ID 07-007531)**

1. Easement granted to Southern Maryland Electric Cooperative Inc. (SMECO) for an overhead electric distribution line and transformer to serve the residence. Recording reference Liber 1468 Folio 604, dated 4/16/1990.

**Poplar Branch LLC (Tax ID 07-025912)**

1. An electric distribution easement granted to SMECO for overhanging wires to connect to a house. Recording reference Liber 191 Folio 675, dated 9/26/1967. No house is on the property, so that easement is not in use.
2. An encumbrance is entitled “Indenture”, whereby SMECO was granted rights to attach wires to a C&P telephone pole and adding an anchor. Recording reference Liber 153 Folio 498, dated 4/15/1961.

**Carol Witter (Tax ID 07-014465)**

1. There are no easements encumbering the Witter property.

b. Option, proof of ownership, and encumbrances - *provide a written representation from the Bank Sponsor disclosing the current owner of the Bank lands and any existing or proposed easements or other encumbrances (including, but not limited to mortgages, liens, rights-of-ways, servitudes, easements, mineral rights, etc.) that affects the property.*

Option Agreements for all properties are provided in Appendix C

c. Title insurance - *include a title insurance policy insuring clear title to the Bank lands.*

A statement to issue Title Insurance has been included with the Title Search Reports for each individual property for this project. Title Insurance for all properties will be secured upon settlement with the landowner and easement holder.

d. Other existing credits types on property - *identify all other existing or proposed crediting types that affect the property (e.g., TMDL, forest conservation, Critical Area mitigation, Natural Resource Conservation Service conservation programs, species conservation, etc.)*

There are no crediting types that currently exist on the properties. The Bank Sponsor proposes that the bank lands be eligible for sale as multiple types of credit as previously discussed. No stacking of credit types is proposed for the site. No credits will be sold more than once.

e. Baseline site conditions - *summarize baseline ("without project condition") site conditions including land use, vegetation, hydrology, and soils. Photographs are encouraged.*

JMT will characterize the site with detailed studies; however, the site is presently functioning at risk or not functioning based on initial assessments. The best functioning portions of the site are at risk due to headcutting and incision; others are functional but have risk from encroachment into the buffer, lack of buffer, etc. These are aggregate visual assessments based on comparison to reference conditions. Full analysis using the functional pyramid, MSMF Calculator, etc., will be provided. JMT is committed to providing an in-depth functional assessment as well as biological assessment through the MBI process. This includes the use of the MDWAM methodology if it is made available to us.

Various land use and climate pressures are anticipated to cause ecosystem simplification on the project site, diminishing the taxonomic diversity as well as quantity of suitable high-quality habitats.

f. Previous land uses for site and adjacent parcels - *identify previous land uses of the site and adjacent properties.*

Agricultural and some industrial uses such as saw milling and blacksmithing are previous uses on site. Presently the principal site activity is residential, with surrounding parcels active in agriculture.

g. Current zoning of bank site and proposed development - *identify current zoning and any existing and proposed development adjacent to the bank. Identify current zoning within the bank site.*

Charles County zoning maps depict the entire Mill Swamp bank sites as Rural Conservation. There is no known proposed development adjacent to the bank site.

h. Historical hydrology - summarize the historical hydrology of the site.

Strong presence of historical hydrology is evident based on initial geologic investigation. JMT will characterize this through field investigations. Groundwater monitoring wells are proposed. Data collection will occur at the beginning of the MBI stage and continue for 1 year prior to construction.

i. Existing data sources and proposed data collection - *If applicable, identify any ecological monitoring that has been performed for the site and for what period (e.g., well data, vegetation diversity, channel morphology, erosion pins, crest gage, macro invertebrates, etc.).*

JMT will conduct a thorough investigation of the site as part of design data collection, including geomorphic data, topography, and natural resources inventory. Benthic data and fisheries data collected by the DNR and other publicly available sources will also be used.

j. Reference information - *reference information on 8 ½" by 11" sheets showing boundaries of bank site overlaid on aerial photographs, National Wetland Inventory and State Wetland maps, NRCS soil surveys, FEMA 100-year floodplain boundary, 7.5-minute USGS map, and 8-digit HUC map.*

Please see Appendix A for additional reference information. The Bank Site is in FEMA Zone A, an area of minimum flood hazard determined to be within the 1% annual chance of flooding. No base flood elevations determined.

k. Jurisdictional determination - *a jurisdictional determination of waters of the U.S. from the Corps will be needed to support the method of compensation statement. The bank sponsor shall submit a request for a preliminary jurisdictional determination that includes data sheets and maps showing the approximate limits of waters of the United States on the project site. Include an estimate of the square feet or linear feet of wetlands or streams that are proposed to be impacted by bank construction. This information will be evaluated by the Corps in conjunction with the prospectus, and an accurate approved jurisdictional determination will be required prior to finalizing a mitigation banking instrument.*

A preliminary jurisdictional determination will be requested for the MBI.

l. Stream order and type/wetland Cowardin types - *identify the stream order and type (Rosgen or Cowardin classification).*

The Mill Swamp mainstem is a second order, low sinuosity gravel bed Rosgen stream type C4. The Tippett (Ag) site unnamed tributaries are third order low sinuosity gravel bed Rosgen stream type C4. Existing wetlands are a mix of emergent and forested. A full wetland delineation has been completed.

## 9. ASSURANCE OF SUFFICIENT WATER RIGHTS

a. Relationship with adjacent resources and maintenance of rights and connection - *describe the relationship between the mitigation bank site and other aquatic resources within the sub-watershed and methods that will be implemented to ensure enough water rights to support the long-term sustainability of the proposed mitigation bank. The project sponsor must have enough control over hydrology inputs and outputs on the project site to ensure that hydrology is available. In addition, the*

*proposed project should not result in the interruption of downstream flows or the flooding of upstream properties.*

There are no known current or future withdrawals of surface flow or groundwater which would impact the site. Therefore, control of the hydrology is not perceived as an issue at this time. The existing surface flows and groundwater hydrology will be utilized for the primary hydrologic functions of the mitigation areas. Maintaining and improving connectivity to adjacent forest corridors with contributing tributaries is paramount for the passage of aquatic organisms.

b. Hydrological disturbance outside the sponsor's control - *describe any existing hydrological disturbances on and adjacent to the site over which the Sponsor has no control.*

No hydrological disturbances outside of the sponsor's control are anticipated.

c. Structural water management requirements - *describe any temporary or long-term structural management requirements (e.g., levees, weirs, culverts, etc.) needed to assure hydrological/vegetative restoration.*

Hydrology will be provided through stream and floodplain reconnection. No long-term controls or maintenance-intensive structures are anticipated.

d. Water sources and losses - *describe water source(s) and losses (e.g., precipitation, surface runoff, groundwater, stream, tidal).*

Groundwater, precipitation, and surface flow connection are the primary sources of hydrology for restored wetlands onsite. Losses of hydrology include groundwater recharge, evapotranspiration, and flow off site.

e. Hydroperiod - *describe hydroperiod (seasonal depth, duration, and timing of inundations and/or saturation).*

Hydroperiods proposed throughout the wetland are intended to vary, yielding maximum habitat diversity. Hydroperiods must at a minimum meet the necessary requirements to be deemed jurisdictional wetlands 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. Flood flow connection is also anticipated.

f. Contributing drainage areas - *describe the contributing drainage area (map and size).*

The Mill Swamp Mitigation Bank will follow existing drainage patterns and does not propose to alter existing drainage networks or change the contributing drainage area to the site. See Appendix A for mapping and contributing drainage area size.

## 10. OTHER INFORMATION

Appendix A

- Proposed Mill Swamp Mitigation Bank Vicinity Map
- Proposed Mill Swamp Mitigation Bank Proposed Mitigation (MUM)
- Proposed Mill Swamp Mitigation Bank Service Area Map
- Proposed Mill Swamp Mitigation Bank Drainage Area Map
- Proposed Mill Swamp Mitigation Bank 8-Digit HUC Watershed Map
- Proposed Mill Swamp Mitigation Bank Soil Map
- Proposed Mill Swamp Mitigation Bank USGS 7.5' Topographic Map
- Proposed Mill Swamp Mitigation Bank Existing Features Map
- Proposed Draft Mitigation Banking Conservation Easement

Appendix B

- Site Evaluation Report
- Figures
    - Figure 1 – EJ Screen Community Report
    - Figure 2 – Brown Field Superfund Map
    - Figure 3 - MyWaterway Permitted Discharges Map
    - Figure 4 - Existing Natural Resources Map
    - Figure 5 - Site Sensitivity Score Map
    - Figure 6 - Site Resources Map
    - Figure 7 - Airport Zoning Map
    - Figure 8 - Climate Change Map

Appendix C (Not for Public Notice)

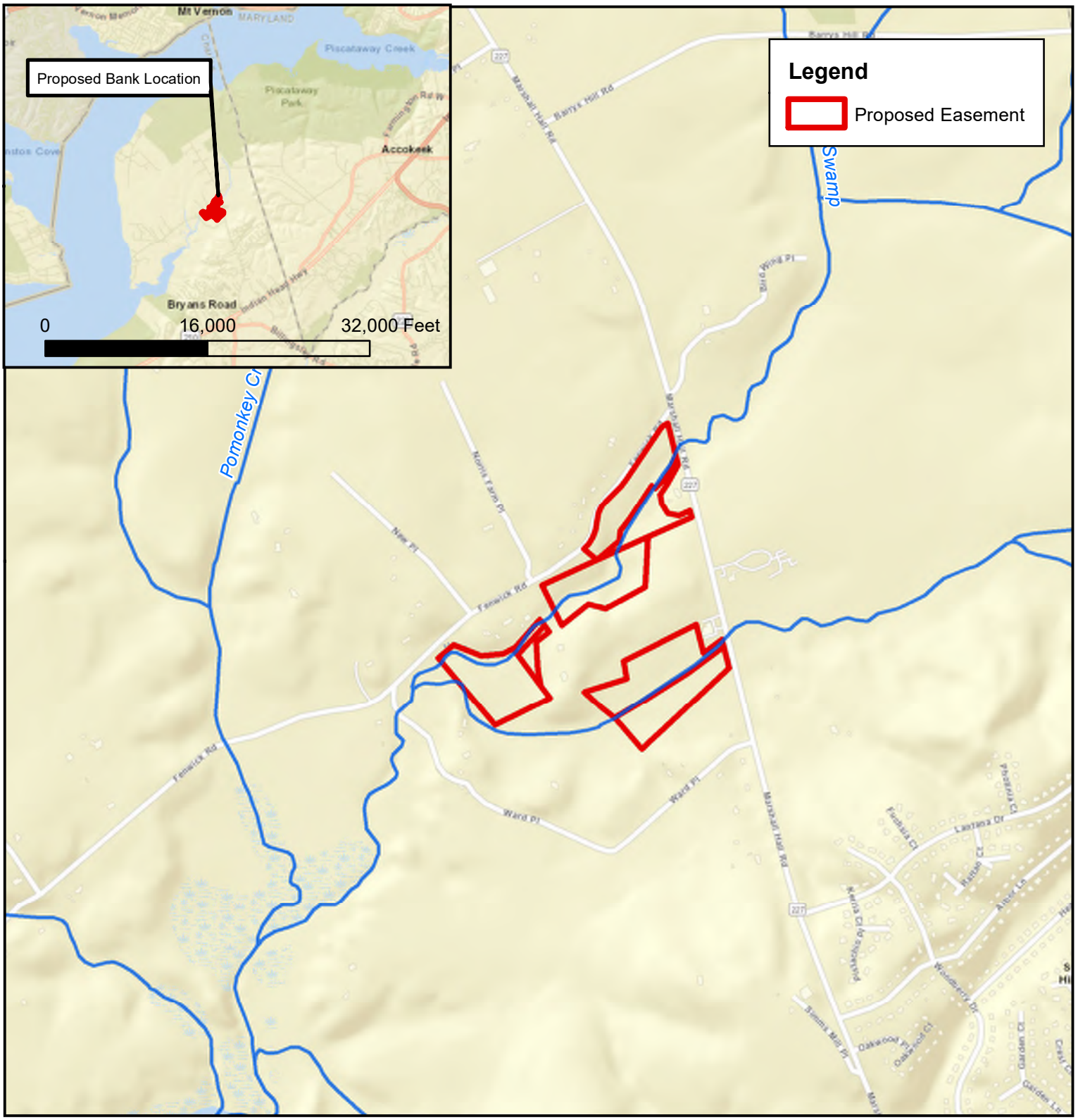
- Option Agreements
- Title Reports and Title Insurance
- List of Adjacent Landowners
- Trilogy Letters
- Other Relevant Correspondence

# APPENDIX A

ATTACHMENTS

**FIGURE 1**

VICINITY MAP




# Proposed Mill Swamp Mitigation Bank Vicinity Map

Charles County, Maryland

0 1,000 2,000 Feet

1 inch = 1,000 feet

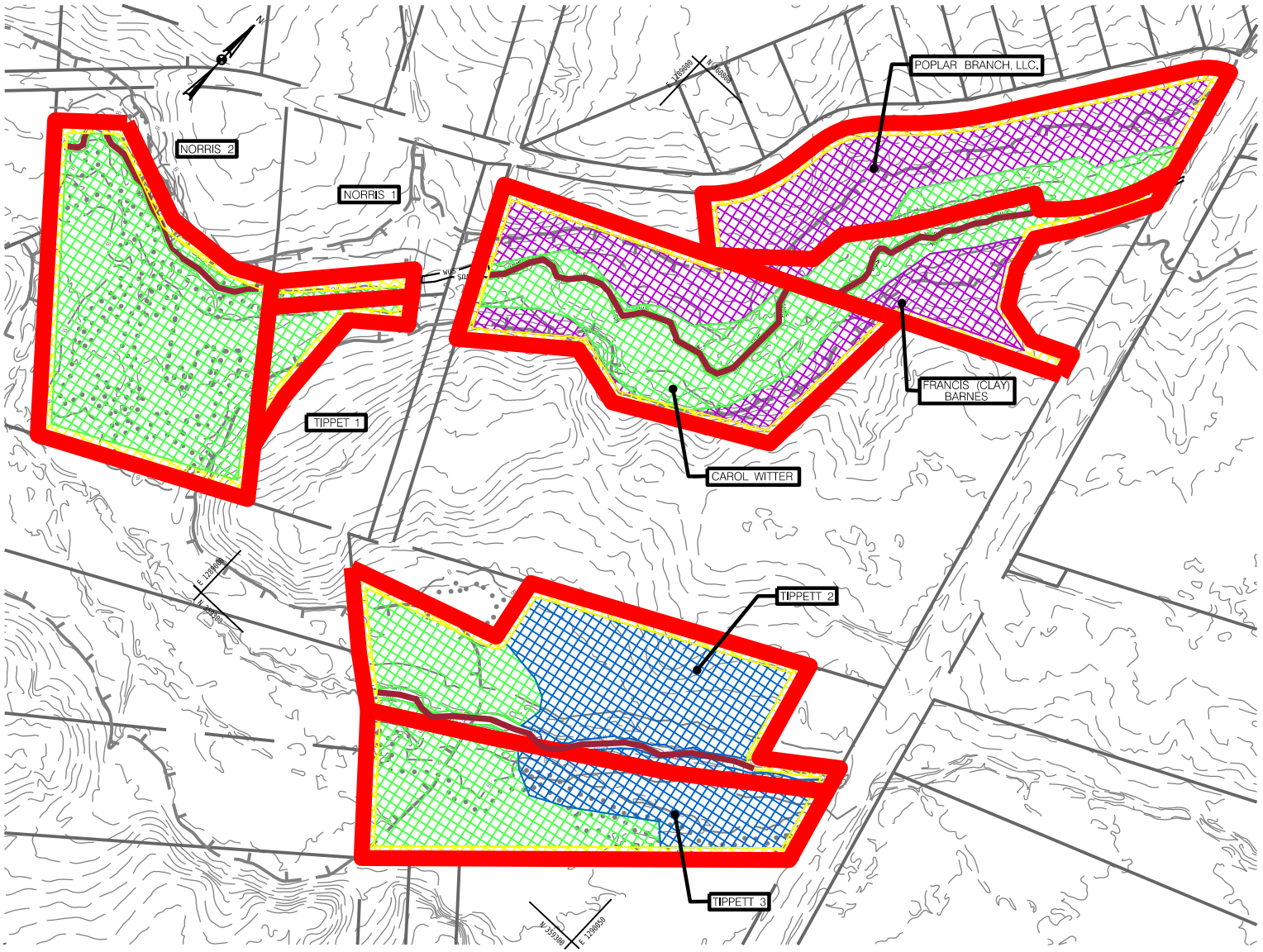
N

Date: July 2024

Source: ESRI, iMAP

**FIGURE 2**

PROPOSED MITIGATION MAP




BY: KHiggins –

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE CHARLES SOIL CONSERVATION DISTRICT.

CHARLES SOIL CONSERVATION DISTRICT _____ DATE _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR OF THE DEPT. OF PLANNING & ZONING _____ DATE _____

DESIGN PROFESSIONAL

JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON
40 WIGHT AVENUE
COCKEYSVILLE, MD 21030
TEL: 410-316-7360
EMAIL: JKoser@jmt.com

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____.

OWNER / DEVELOPER INFORMATION

JOHNSON, MIRMIRAN & THOMPSON
40 WIGHT AVE.
COCKEYSVILLE, MD 21030

CONTACT

JEREMY KOSER
40 WIGHT AVE.
COCKEYSVILLE, MD 21030
TEL: 410-316-7360

MILL SWAMP MITIGATION BANK

MARYLAND COORDINATE SYSTEM – HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

BRYANS ROAD, MD 20616

CHARLES COUNTY ELECTION DISTRICT: 7 CONGRESSIONAL DISTRICT: 5

REVISIONS

NOT FOR CONSTRUCTION

# CREDIT MAP

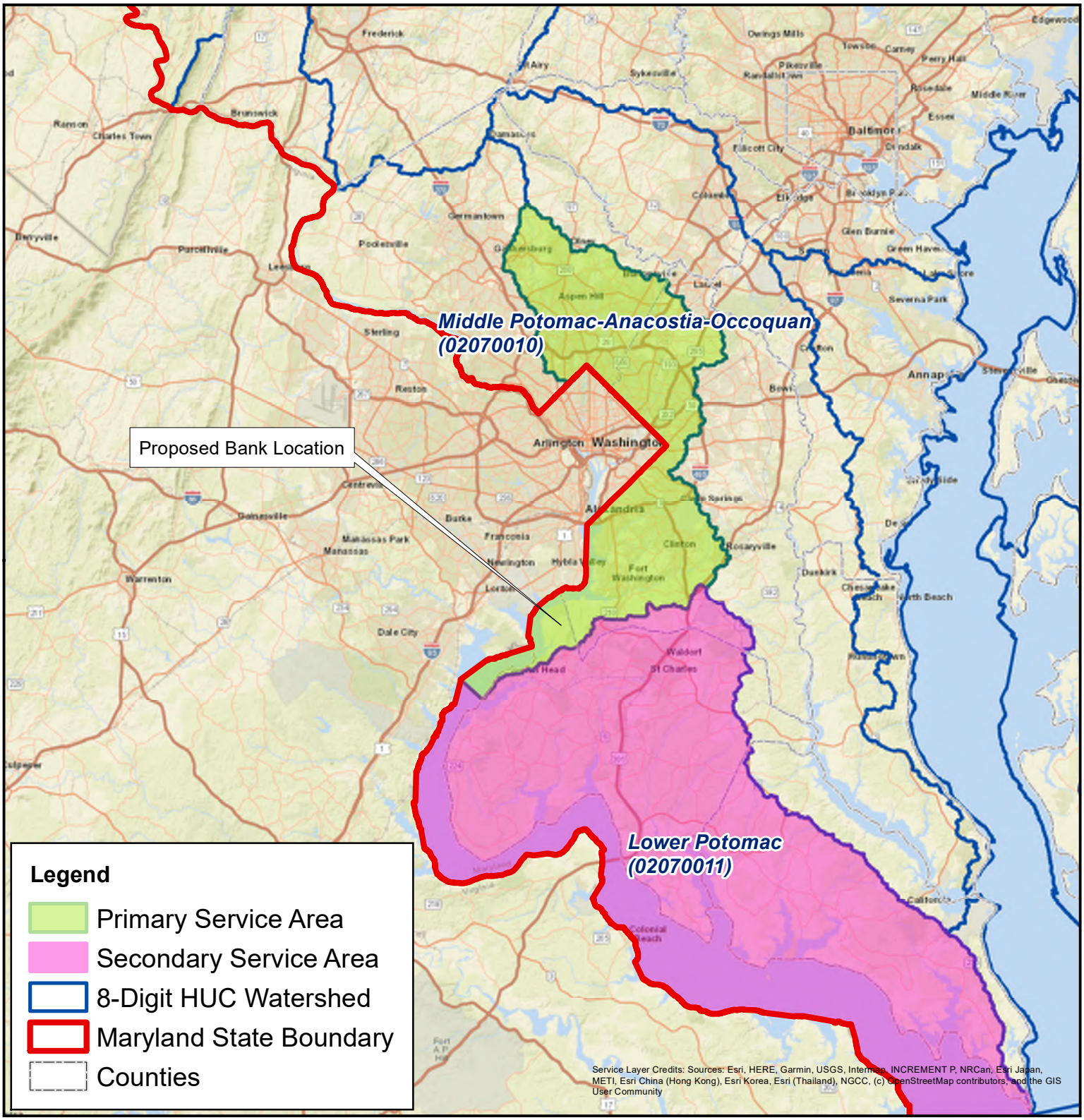
SCALE AS SHOWN DATE NOVEMBER 2024 PROJECT NO. 19-03123-002

DESIGNED BY KNH COUNTY CHARLES COUNTY
DRAWN BY GLZ LOGMILE N/A
CHECKED BY JJM HORIZONTAL SCALE N/A
F.A.P. NO. N/A VERTICAL SCALE N/A

DRAWING NO. CM-01 OF 01 SHEET NO. 1 OF 1

**FIGURE 3**

SERVICE AREA MAP




# Proposed Mill Swamp Mitigation Bank Service Area Map

Charles County, Maryland

38° 39' 33.48" N, 77° 04' 41.52" W

Date: July 2024

Source: ESRI, NHD, EPA

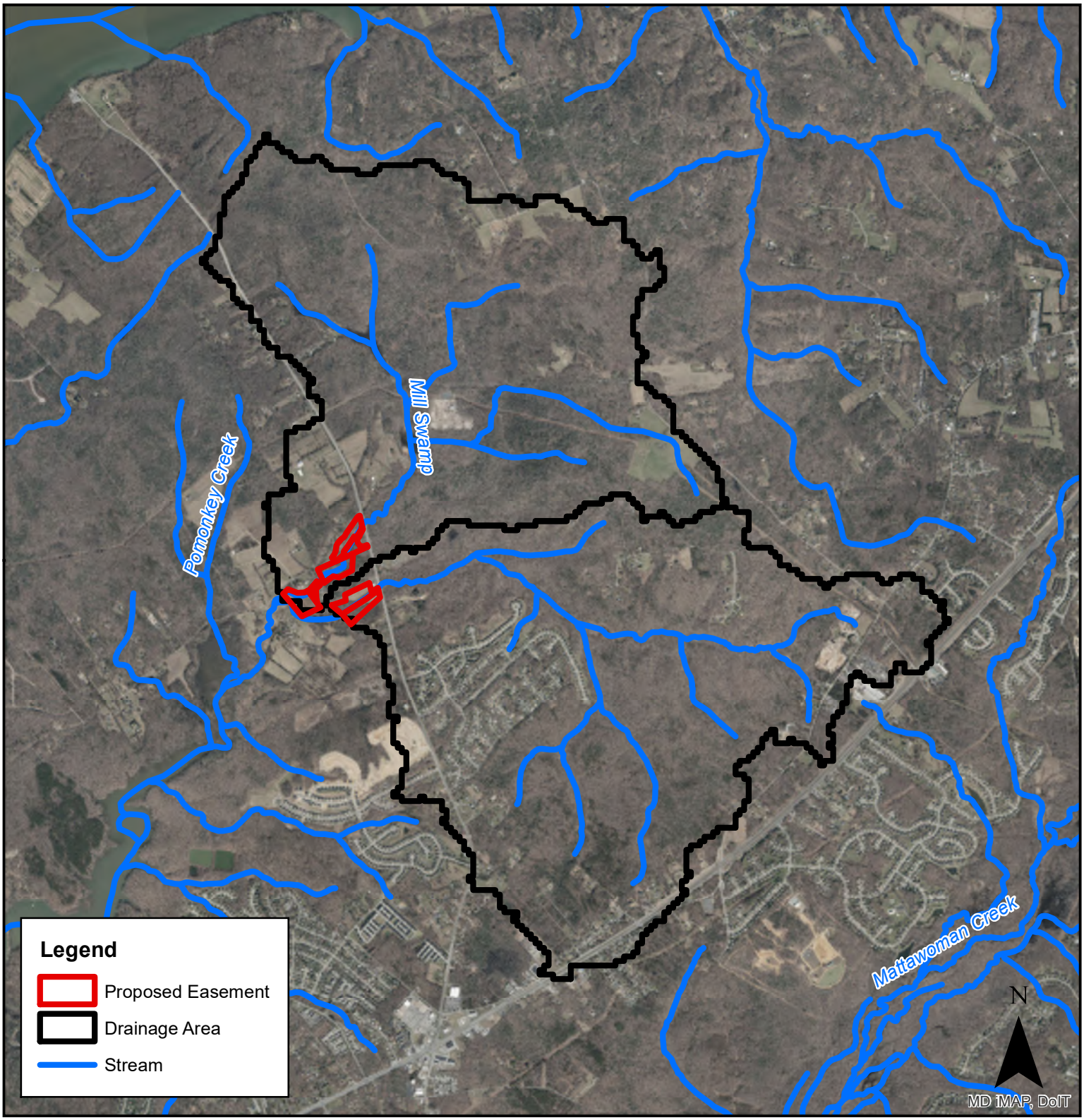
0 12 24 Miles

1 in = 12 miles

N

**FIGURE 4**

DRAINAGE AREA MAP




# Proposed Mill Swamp Mitigation Bank Drainage Area Map

Drainage Area (N Stem) = 2.52 square miles
Drainage Area (S Stem) = 2.83 square miles

0 1,500 3,000 6,000 Feet

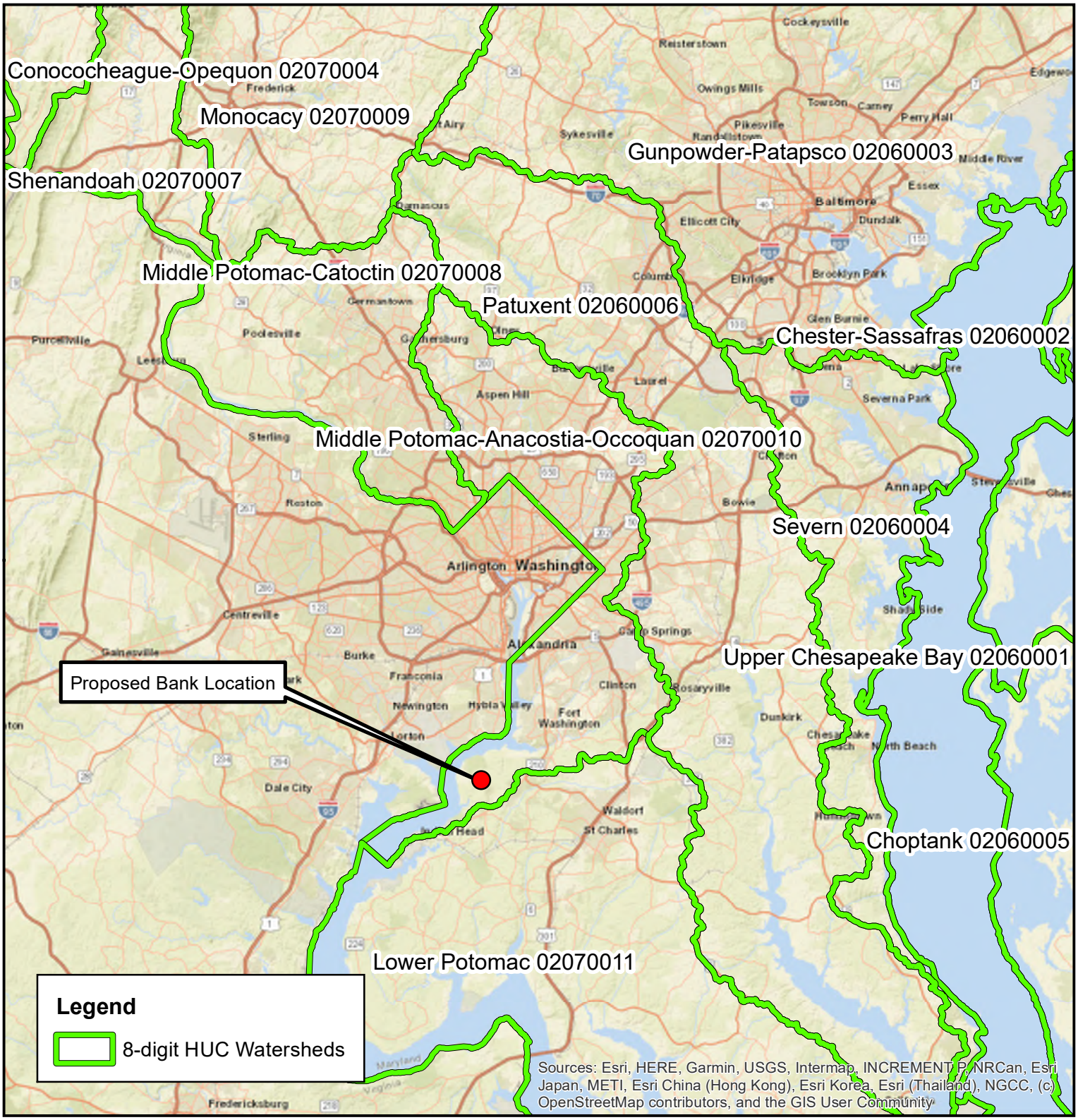
1 inch = 3,000 feet

Date: July 2024

Source: ESRI

**FIGURE 5**

8 DIGIT HUC MAP




# Proposed Mill Swamp Mitigation Bank 8-Digit HUC Watershed Map

Charlesl County, Maryland

0 10 20 Miles

1 in = 10 miles

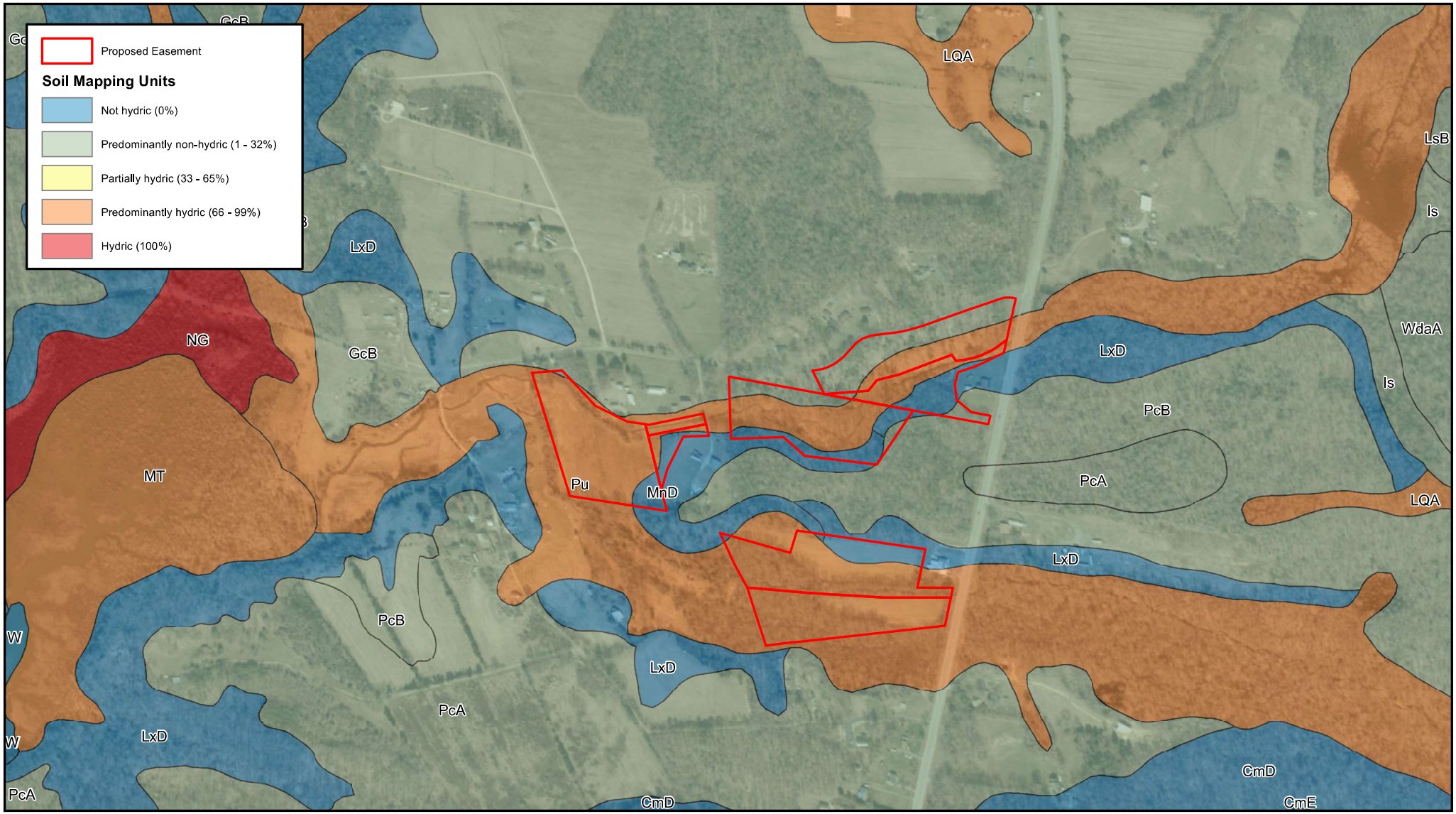
N

Date: July 2024

Source: ESRI, USGS

**FIGURE 6**

HYDRIC SOILS MAP




**Proposed Mill Swamp Mitigation Bank**
**Hydric Soils Map**
**Charles County, Maryland**

**Source: MD IMAP**

**Date: July 2024**

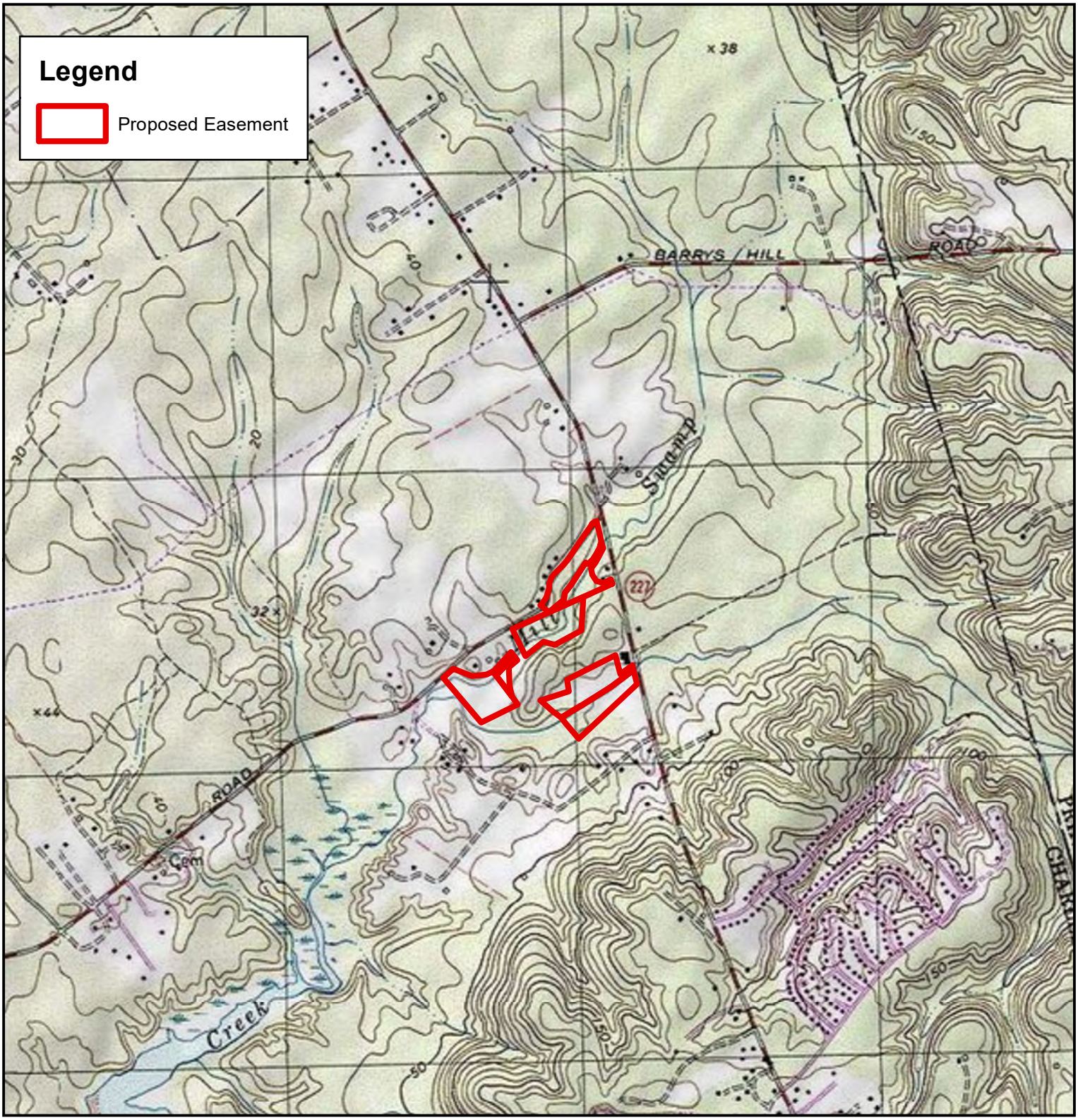
1 inch = 500 feet

0 250 500 1,000 Feet

N

**FIGURE 7**

USGS 7.5’ TOPO MAP




# Proposed Mill Swamp Mitigation Bank
# USGS 7.5' Topographic Map

Charles County, Maryland

0 1,500 3,000 Feet

1 inch = 1,500 feet

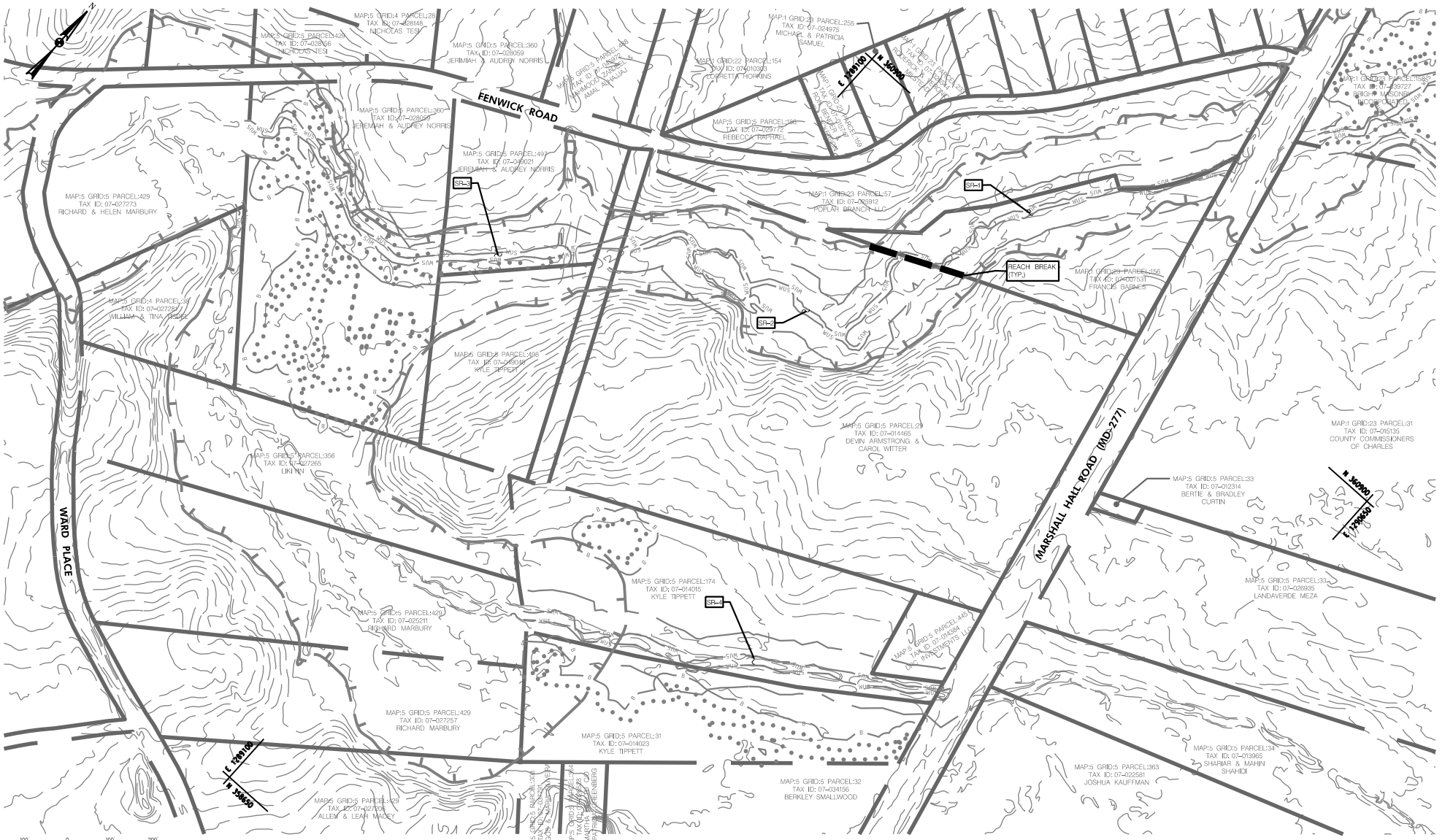
N

Date: July 2024

Source: USGS

**FIGURE 8**

EXISTING FEATURES MAP




JMT

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE CHARLES SOIL CONSERVATION DISTRICT.

CHARLES SOIL CONSERVATION DISTRICT — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

DIRECTOR OF THE DEPT. OF PLANNING & ZONING — DATE

| DESIGN PROFESSIONAL | PROFESSIONAL CERTIFICATION |
|---|---|
| JEREMY KOSER<br>JOHNSON, MIRMIRAN & THOMPSON<br>40 WIGHT AVENUE<br>COCKEYSVILLE, MD 21030<br>TEL: 410-316-7360<br>EMAIL: JKoser@jmt.com | I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. ____, EXPIRATION DATE: ____. |
| OWNER / DEVELOPER INFORMATION | CONTACT |
| JOHNSON, MIRMIRAN & THOMPSON<br>40 WIGHT AVE.<br>COCKEYSVILLE, MD 21030 | JEREMY KOSER<br>40 WIGHT AVE.<br>COCKEYSVILLE, MD 21030<br>TEL: 410-316-7360 |

# MILL SWAMP MITIGATION BANK

MARYLAND COORDINATE SYSTEM - HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

BRYANS ROAD, MD 20616

CHARLES COUNTY ELECTION DISTRICT: 7 CONGRESSIONAL DISTRICT: 5

REVISIONS

NOT FOR CONSTRUCTION

## EXISTING CONDITIONS

SCALE AS SHOWN DATE NOVEMBER 2024 PROJECT NO. 19-03123-002

DESIGNED BY KNH COUNTY CHARLES COUNTY

DRAWN BY GLZ LOGMILE N/A

CHECKED BY JJM HORIZONTAL SCALE N/A

F.A.P. NO. N/A VERTICAL SCALE N/A

DRAWING NO. EC-01 OF 01 SHEET NO. 1 OF 1

BY: KHiggins -

# FIGURE 9

DRAFT MITIGATION BANK CONSERVATION EASEMENT

*This Conservation Easement Template is a standardized document for Mitigation Banks in Maryland. Modifications to this template shall be identified using tracked changes with an explanation for those changes provided in a cover memorandum. (Template Version Date: 05 August 2019)*

STATE OF MARYLAND
COUNTY OF _____

# CONSERVATION EASEMENT
**(*Insert Bank Name)***

***[USE THIS VERSION IF THE MITIGATION BANK SPONSOR IS THE SAME ENTITY AS THE EASEMENT HOLDER:]***

THIS CONSERVATION EASEMENT ("Conservation Easement") is made this _____ day of ____, 20____, by ***[FULL LEGAL NAME OF GRANTING LANDOWNER]*** ("Grantor*(s)*") in favor of ***[FULL LEGAL NAME OF HOLDER OF CONSERVATION EASEMENT]*** ("Holder") (collectively, the "Parties"), with the U.S. Army Corps of Engineers, Baltimore District (the "Corps" or "Baltimore District") and the Maryland Department of the Environment ("MDE") as Third-Party Beneficiaries (collectively the "Third Parties").

***[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") (collectively, the "Parties"), with the U.S. Army Corps of Engineers (the "Corps," to include any successor agency) and the Maryland Department of the Environment ("MDE," to include any successor agency) as Third-Party Beneficiaries (collectively the "Third Parties").

## RECITALS

WHEREAS, Grantor*(s) is/are* the fee simple owner*(s)* of certain real property ("Property" which shall include wetlands, streams, any interest in submerged lands, uplands, associated riparian/littoral rights, and other aquatic resources) located in _____County, Maryland, more particularly ***[DESCRIBE TRACT TO BE PRESERVED, INCLUDING: 1) ACREAGE, 2) A REFERENCE TO RECORDED PLAT(S), AND 3) ANY EXCLUDED PROPERTY]*** and shown in Exhibit A (i.e., metes and bounds of the Property), and Exhibit B (i.e., a metes and bounds and a scaled plat of the area subject to the Conservation Easement, the "Conservation Area"), and made a part hereof; and

WHEREAS, this Conservation Easement is granted in support of the Mitigation Banking Instrument ("MBI") dated, _____, 20__ and incorporated by reference in this document, by and between ***[INSERT BANK SPONSOR FULL LEGAL NAME]*** ("Bank Sponsor") and the Interagency Review Team (the "IRT"), which consists of the Corps, MDE, the U.S. Environmental Protection Agency ("EPA"), the U.S. Fish and Wildlife Service ("USFWS"), the National Oceanic and Atmospheric Administration ("NOAA"); the Critical Area Commission for the Chesapeake and Atlantic Coastal Bays ("CAC"); the Maryland Historic Trust ("MHT"); and the Maryland Department of Natural Resources ("DNR");

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 a portion of the Property described in Exhibit B attached hereto (the "Conservation Area"), which contains or will contain land, functions, values, and services that may serve as compensation and mitigation for impacts to waters of the United States and/or waters of the State that were permitted by the Third Parties; and

WHEREAS, the Parties 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 IRT; 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 or improved 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, in recognition of the continuing benefit to the Property, and for the protection of aquatic resources and scenic, resource, environmental, and general property values, the Grantor and Holder have agreed to place this Conservation Easement 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 attached compensatory mitigation performance standards of the MBI (Exhibit C);

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 United States and 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. Purpose.** The purpose of this Conservation Easement is to preserve, protect, and enhance the native flora, fauna, soils, water table, aquifers, springs, drainage patterns, wetland resources, and other related environmental functions and values of the Conservation Area in perpetuity and to prevent any use of the Property that will impair or interfere with the aquatic resource values of the Property;

**2. 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 the aquatic resources, 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 included in the approved MBI and 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;

**[*IF REFERENCE IS MADE TO THE PERMIT, OR TO A MITIGATION PLAN APPROVED BY THE PERMIT, ALL EXCEPTIONS (INCLUDING THOSE AFFECTING 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*].**

j. Utilizing a non-reporting Nationwide Permit, Regional Permit, or State Programmatic General Permit under Section 404 of the Clean Water Act or state general permits under MDE regulations to impact any aquatic feature 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.

**3. 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 Third Parties, 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 Third Parties, 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 Third Parties 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 Third Parties, in consultation with resource agencies as appropriate, and then only in exceptional circumstances. Mitigation for amendment impacts will be required pursuant to Third Parties' mitigation policies at the time of amendment. There shall be no obligation to allow an amendment. The Third Parties 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. Should the Property be transferred, sold, or conveyed, be subject to foreclosure or bankruptcy, or transferred by any other means whatsoever, the Grantor or Bank Sponsor shall immediately notify the Corps in writing. This Conservation Easement shall not be invalid solely because aquatic resources within the Conservation Area are determined not to be waters of the United States or waters of the State.

**4. 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.

**5. 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 this Conservation Easement.

**6. 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.

**7. 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 the Mitigation Site Plan, the Approved Long-Term Management Plan, and this Conservation Easement.

**8. Enforcement.** The Grantor*(s)* grant*(s)* to the Holder, Bank Sponsor, Corps, the U.S. Department of Justice, and 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 entity 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.

**9. 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]**.

Grantor(s) agree(s) to give written notice to the Corps and MDE of the intent to transfer, sell, or convey any interest of the Property, or to amend this Conservation Easement by any other means whatsoever, at least sixty (60) days prior to the date of transfer.

**10. 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.

***[NOTE: THE GRANTOR, BANK SPONSOR, OR PERMITTEE MUST IDENTIFY ALL ENCUMBRANCES (I.E., MORTGAGES, LIENS, EASEMENTS, RIGHTS OF WAY, LEASES, ETC.), THAT MAY AFFECT THE CONSERVATION AREA AND SHOW THESE ENCUMBRANCES ON EXHIBIT B TO THIS EASEMENT. IF ANY ENCUMBRANCE AFFECTS THE CONSERVATION AREA, THEN SOME VERSION OF THE FOLLOWING CLAUSE SHOULD BE INCLUDED, AND THE HOLDER OF THAT INTEREST MUST SIGN, SUBORDINATING ITS INTEREST TO THIS CONSERVATION EASEMENT.]***

**11. 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.

**12. Recording.** Within thirty (30) calendar days of execution of this Conservation Easement, the Grantor*(s)* and Holder agree(s) to record this Conservation Easement in the Land Records of the County and provide the Third Parties with proof of recordation within thirty (30) calendar 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 or concurrent with the recording of this Conservation Easement. The plat*(s)* is/are recorded at ***[INCLUDE BOOK AND PAGE REFERENCES, COUNTY(IES), AND DATE]***.

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

**14. 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.

**15. Eminent Domain.** NOTICE TO PARTIES WITH EMINENT DOMAIN AUTHORITY: 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. Exercise of eminent domain by any party ("Condemning Party") to take land held as part of a mitigation bank site under this [Easement/Declaration] may remove restrictions that the Grantor, Grantee, Holder, the Corps or MDE intend will protect, in perpetuity, the Conservation Area, and preserve the land serving as compensation of other permitted impacts. Where the Condemning Party: (1) intends to take action(s) that will have impacts on the Conservation Area associated with debited mitigation credits, and (2) is required to obtain a Corps or MDE permit for such impacts, the Corps and MDE have discretion to increase the Condemning Party's wetland and/or stream compensation requirements, as part of the permitting process, in order to account for the loss of functions and values associated with the credits already debited and/or released from the mitigation bank site.

**16. 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 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:**

**IN THE PRESENCE OF:** **Holder**

_____ By:
_____

[*type name of witness under signature line*] [*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.

_____

**FIGURE 10**

PHOTO LOG

Mill Swamp Mitigation Bank
Existing Conditions Photo Exhibit
Photos Taken 3-2020, 3-2023, and 8-2024

**Norris Property**

Photo 1: Downstream view of Mill Swamp on SR-3, note high, undercutting left bank.

Photo 2: Upstream view of high cut banks of SR-3 consisting of a thick legacy sediment layer indicating disconnection from floodplain.

Photo 3: Downstream view of SR-3.

Photo 4: Downstream view of SR-3, note lack of distinct facet features and high banks indicating disconnection from floodplain.

**Tippett Property**

Photo 5: Downstream view of SR-4, note high banks and enlargement of point bars.

Photo 6: Downstream view of SR-4, note trees collapsing into stream channel typical within reach.

Photo 7: Downstream view of SR-4, note over-widening of stream channel and high banks indicating disconnection from floodplain.

Photo 8: Downstream view of SR-4, note high banks and enlarged downstream point bar.

**Barnes and Poplar Branch LLC. Properties**

Photo 9: Upstream view of SR-1 at Marshall Hall Rd.

Photo 10: Downstream view of SR-1, note high banks indicating disconnection from floodplain.

Photo 11: Downstream view on SR-1, note high banks indicating disconnection from floodplain and lack of overhead cover.

Photo 12: Upstream view on SR-1, note straightened channel, high banks indicating disconnection from floodplain, sediment deposition, and lack of overhead cover.

**Witter Property**

Photo 13: Upstream view on SR-2, note dewatering of stream channel and undercutting of right bank.

Photo 14: Upstream view on SR-2, note high banks indicating disconnection from floodplain.

# APPENDIX B

Site Evaluation Report

**Site Evaluation Report for Stream and Wetland Compensatory Mitigation in NAB (Maryland)**
**August 30, 2023**

SUMMARY:

The purpose of this Site Evaluation Report is to provide a standard list of screening considerations for selecting stream and wetland mitigation sites. Completion of the report is required at the Draft Site Specific Mitigation Plan (SSMP) Phase of a compensatory mitigation project to determine if a project is feasible and ecologically preferable. The report should be used regardless of the method of compensation (Mitigation Bank, In Lieu Fee Program, or Permittee Responsible Mitigation. This site evaluation report will aid selection of mitigation sites and proposals with the highest probability of success and long term protection, while encouraging applicants and project sponsors to avoid sites with challenging constraints or unresolvable ecological stressors early in the process. Please note that the "Complete Prospectus Checklist" completed at the Prospectus Phase/Concept Plan Phase of the project may help answer many of the questions below.

The document is separated into four sections:

I. General Considerations for all Stream and Wetland Mitigation Projects
II. Screening Considerations for Stream Mitigation
III. Screening Considerations for Wetland Mitigation
IV. Screening Considerations for Fish Passage Mitigation.

The project sponsor is encouraged to fill out only the sections applicable to their site and types of mitigation they are proposing.

In general terms, the site selected for a compensatory mitigation project should replace the lost functions and resource types, provide opportunities for diverse biological colonization from the surrounding area and must not result in detriments that outweigh the proposed benefits for the project. Section 33 CFR 332.3(d) of the 2008 Mitigation Rule identifies factors that must be considered when determining the ecological suitability of the compensatory mitigation project site and is intended to assist in site selection that will support ecologically successful and sustainable compensatory mitigation projects. Please note that sites exhibiting contamination problems, unresolvable property constraints, or lacking plausible ecological rationale regarding location or approach may be deemed ineligible as compensatory mitigation sites. However, constraints such as poor water quality may be limiting for one type of mitigation (work in stream channels), it may not constrain mitigation work in stream buffers.

MITIGATION TYPE AND SERVICE AREAS:
The two dominant CWA Section 404 mitigation types in Maryland are Mitigation banks and Permittee-Responsible Mitigation (PRM). Each mitigation type has a respective geographic area where a mitigation site search should occur or where credits may be sold for banks (Service Area). Mitigation banks or consolidated mitigation sites are preferred to permittee-responsible mitigation (PRM), unless the PRM is determined by the agency(ies) requiring the mitigation, the U.S. Army Corps of Engineers (Corps) and/or the Maryland Department of the Environment (MDE), to be environmentally preferable. On-site mitigation should be considered only when it is environmentally preferable (2016 Maryland House Bill 797: Nontidal Wetlands - Nontidal Wetlands Mitigation Banking). Mitigation bank service areas must be based on ecological justification provided by the bank sponsor and are determined as part of the MBI approval. The standard mitigation bank service area includes a primary service area of the

HUC8 where the mitigation bank is located and a secondary service area of adjacent HUC8s within the same drainage basin and physiographic region (e.g., coastal plan, piedmont, etc.).

PRM required by MDE must follow COMAR 26.23.04.03, with off-site mitigation being located within the same 8-digit State watershed of impact. If feasible mitigation cannot be located within the 8-digit State watershed, mitigation may be considered in the larger 6-digit State watershed. Off-site mitigation should also consider areas identified in an approved comprehensive watershed management plan. For mitigation required by the Corps, off-site mitigation is preferred within the same 8-digit USGS Hydrologic Unit Code (HUC8) as the impacts are occurring. Only when documentation is provided that indicates that no suitable mitigation sites are available within the same HUC8, should a mitigation site be considered in an adjacent HUC8 within the same physiographic region.

APPLICABILITY TO THE MARYLAND STREAM MITIGATION FRAMEWORK
(MSMF V.1. FINAL)

Appendix E2 of the Maryland Stream Mitigation Framework (MSMF V.1. Final) provides calculation grids based on this Site Evaluation Report to determine Site Sensitivity Adjustments for Tabs 3 and 4 of the Stream Mitigation Calculator (Appendix A). Appendix E2 applies to mitigation in Stream Channels and Stream Buffers but does not apply to wetlands or Fish Passage.

SITE EVALUATION REPORT FOR STREAM AND WETLAND MITIGATION (MARYLAND)

INSTRUCTIONS:
*For Stream Mitigation proposals, please complete sections I and II.*
*For Wetland Mitigation Proposals, please complete sections I and III.*
*For Fish Passage Projects, please complete Sections I.A, I.C, and Section IV.*

*Include this site evaluation report as an attachment to your Site Specific Mitigation Plan (SSMP) (banks) or Mitigation Plan (permittee-responsible mitigation) if completed at that time. The report is required when providing a SSMP (mitigation plan phase) and should be updated with the most current information. At the top of this report, please provide a project name, sponsor, consultant (if applicable), and project coordinates and boundary map.* Mapping, photos, and habitat assessment results will be required in this report. The applicant may elect to simply reference those items if found elsewhere in the MBI or Mitigation Plan. Please answer every question applicable to your mitigation type even if provided elsewhere in the MBI/mitigation plan, although the applicant may site additional information in various sections.

Specific to stream mitigation, this report will be used to determine the Site Sensitivity Score which factors into crediting in MSMF V.1. Final.

BACKGROUND INFORMATION:
Project Name: **Mill Swamp Mitigation Bank**
Corps Project Number (if known): _____
Sponsor: **Johnson, Mirmiran, & Thompson, Inc. (JMT)**
Consultant: **Johnson, Mirmiran, & Thompson, Inc. (JMT)**
Project Coordinates (decimal degrees): **38° 39' 34" N, 77° 04' 42 W**
Project boundary map (insert here or add as attachment/reference)

*Vicinity Map has been included Appendix A.*

**I. General Screening Considerations for All Stream and Wetland Mitigation Sites**

A. General Considerations

1. Provide a figure showing existing aquatic and terrestrial resources on the site, the proposed mitigation activities, and the proposed limit of disturbance. The figure should label applicable stream reaches, stream buffer areas (SBQAs), wetlands, and wetland buffers as well as any local fish passage barriers and the activity proposed for each (restoration, preservation, avoidance, removal, etc).

**Response: A figure has been provided in Figure 6.**

2. Is the site located within critical habitat for a federally (Section 7 ESA) or state listed species? If so, how might the proposal benefit or damage critical habitat or affect listed species? Note: Given changes to species listings over time, it is recommended IPAC is checked every 90 days. Attach or reference any relevant correspondence.

   **Response: No, Trilogy Letters have been included in Appendix C.**

3. Section 106 NHPA: Is the site located near any known historical, archaeological, or tribal resources? If so, could site development pose a threat to one of these cultural resources? Attach or reference any relevant correspondence.

   **Response: No known properties are located near any of these resources.**

4. Section 408: Are there any known Corps projects or facilities near the site (levees, dams, navigation channels, etc.). How might the proposal affect these facilities?

   **Response: The mitigation site will not affect any Corps projects or facilities.**

5. Is the proposal located within an area identified in the EPA or MDE Environmental Justice Screening Tools? Will the proposal result in adverse impacts to these communities? Please attach and discuss results from both screening tools: https://www.epa.gov/ejscreen and https://mdewin64.mde.state.md.us/EJ/
   *Note that community engagement is strongly recommended where proposed projects occur in EJ communities. The view of the project may be positive or negative and will be considered in the agency evaluation of the proposal.*

   **Response: This project will not have adverse impacts on the EJ communities (~80% minority and >60% socioeconomic). A figure has been included in Figure 1.**

6. Have the local community members and/or neighboring property owners been engaged regarding the proposal?

   **Response: Yes**

   a. If so, what local community outreach efforts have occurred to date?

      **Response: Public notice and hearing took place on April 24, 2023 regarding the previous Mill Swamp Prospectus submittal.**

   b. What feedback did the local community provide?

**Response:** **Feedback that has been received is the result of the MDE and ACOE public notices.**

7. What is the proximity to the nearest airport(s)? Is the site located such that it will increase risks to aviation by attracting wildlife to areas where aircraft-wildlife strikes may occur? (*Note: projects occurring near airports require coordination with the airport. Any required measures by the airports (waterfowl management, seeding recommendations, etc.) must be disclosed.)*

   **Response:** **The proposed project is located within 5 miles of the Maryland Airport, the restoration will not increase any risk to aviation. JMT in coordination with the IRT will coordinate with the Maryland Airport and FAA to obtain any clearances as necessary during the MBI phase. Preliminary Maryland Aviation Administration review shows that the site is not within an Airport Zoning District, see Figure 8.**

8. Has the proposed mitigation site been subject to funding by other federal, tribal, state, or local programs for the purpose of aquatic resource restoration. If so, are project components geographically separate? Please include mapping if these features exist on or are planned for the site.

   **Response:** **No.**

9. Is the site located on public lands? If so, please note that functions provided by the mitigation project must exceed those provided by public programs already in place (332.3(a)).

   **Response:** **No.**

10. Please describe what other environmental programs (Bay TMDL, Stormwater Management, Forest Conservation, etc.) already have been implemented at the site or are proposed for the site?

    **Response:** **None.**

11. Does the proposal include mitigation by preservation? If so, please elaborate on why this was proposed. Note that according to 332.3(a)(2), restoration (restoration, buffer enhancement, fish passage, etc.) is generally the preferred mitigation method, however preservation is allowable in some circumstances.

    **Response:** **No preservation activities are currently proposed in the prospectus, they may be proposed later, pending additional resource investigations at the site. Larger buffers are likely to be instituted to protect stream resources and existing high-quality wetlands.**

    a. If preservation is proposed, does the site provide exceptional conservation value, is it at risk of adverse impacts, and/or is it proposed as part of a plan that includes restoration/enhancement?

**Response:** **N/A, see response above.**

12. Are there plans to import materials and equipment from beyond the county in which the project occurs? If so, which materials? (Woody debris, wood chips, coconut coir fiber matting, gravel, rock, topsoil, vegetative plantings). How will the you ensure invasive species are not introduced through use of materials and equipment from outside of the county?

    **Response:** **Importing of materials and equipment may occur, thorough inspection of all materials and equipment will be done prior to use on the site. However, the overall goal will be to use locally sourced and on-site materials as much as possible.**

B. Property Considerations
**Note that the property considerations apply to all mitigation sites except for sites that are Fish Passage Only in the MSMF V.1. Considerations regarding fish passage are included in Section V.*

1. Does the site have any known encumbrances (i.e., easements, liens, right-of-ways, reserved timber, severed surface, or subsurface mineral or natural gas rights, etc.) on the site, on adjacent properties, or within the watershed of the site that will negatively affect the compensation goals? Title conflicts must be resolved prior to approval of a mitigation site. Identification of potential title problems at the Prospectus Development phase will help to prevent the sponsor from pursuing a project that is infeasible.

   **Response:** **The project does not have any known encumbrances on the various sites, adjacent properties or within the watershed that would adversely impact compensation goals.**

2. Do any conservation related restrictions already exist on the property (Agricultural easement, Environmental Easement, Development Rights restrictions, Conservation Reserve Program, etc.)?

   **Response:** **No.**

3. Is the property title otherwise clear?
   a. Are there other easements or interests on the property?
   b. If so, how is it compatible or not compatible with stream or wetland mitigation?

   **Response:** **Yes, the property title is clear. The only easements on the properties are generic utility distribution agreements with no defined location or width. The Barnes, Tippett residential, Tippett agricultural, and Witter sites have existing mortgages. We are in contact with the banks for these mortgages and working through the required permissions / document signatures.**

4. Will the site be protected long-term through recordation of an appropriate site protection instrument or other mechanism that will support the long-term protection of the site?

   **Response: A Conservation Easement will be secured and placed on the site, the easement will be recorded and held by a non-profit entity. Currently, the intent is for the North American Land Trust (NALT) to be the easement holder. However, this will be confirmed and updated at the MBI stage. This entity will also be responsible for the long-term management of the site and will utilize an endowment for funding as approved through the mitigation banking instrument.**

5. Will current zoning and current/proposed development use adjacent to the mitigation site affect the mitigation site?

   **Response: Existing and surrounding zoning is classified as Rural Conservation. Per Charles County mapping, all proposed development/subdivision activities are beyond the drainage area of the mitigation site, and protected lands are located upstream of the site. Additionally, no known developments are proposed on the adjacent properties**

6. What utility corridors occur on the site?
   a. What limitations does this place on the site design?
   b. What % of the proposed site is encumbered by utility corridors or easements?

   **Response: There are no known utility corridors on any of the sites.**

7. Is the site located where adjacent land uses pose a risk through invasive species, encroachment, trespassing, trails, dumping, vandalism, etc.?

   **Response: There is no reason to believe that this parcel or any other adjacent properties will pose any risk to the mitigation site.**

C. Ecological, Landuse, and Contamination Considerations
*Please provide mapping for items 1, 2, 3, 4, and 7 below*

1. Is the site located near any brownfield or superfund sites? See EnviroAtlas: https://www.epa.gov/enviroatlas/enviroatlas-interactive-map

   **Response: The mitigation site is within 5 miles of the Pomonkey-Launch (EPA registry ID 110009291131), and 10 miles the Navel Research Experimental Station (EPA registry ID 110067349701), both located on Bumpy Oak Road, La Plata, MD 20646, and less than 5 miles from the US Naval Research Lab – Control (EPA registry ID 110070822820) located at the end of Laurel Branch Drive, Waldorf MD, listed as a Superfund (Non-NPL) Sites. See Figure 2.**

2. Have any point source or water withdrawal permits been issued in the vicinity of the project? Was the site listed for any type of waterway impairment? If so, what was the impairment specified and what waterway was it specific to?
   See EPA EnviroAtlas and How's My Waterway:
   https://www.epa.gov/enviroatlas/enviroatlas-interactive-map
   https://mywaterway.epa.gov/

   **Response: There is a record of one Discharge Permit issued within the watershed located at the Navel Support Facility, Indian Head (NPDES ID MD0003158).**

   **The mitigation site is in the Potomac River Middle tidal waterbody within the Occoquan Bay-Potomac River watershed. This waterway is listed as in good condition for aquatic life and wildlife per My Waterway. SeeFigure 3.**

3. Is the site in a highly disturbed area (e.g., old sand/gravel quarries, commercial/industrial) that require additional considerations to achieve success (e.g., degraded soils, hydrologic interruptions, invasive species, contaminants, limited functional lift, etc.)?

   **Response: No.**

4. Please include soil mapping of the site. Are there any acid forming soils (glauconite, etc) present within the LOD of the proposed mitigation site? If so, please note that earthwork may be limited in those areas, due to concerns about lowering the pH of receiving waters.

   **Response: Soil Map is included in Appendix A. No acid forming soils are located with the project area.**

5. How will the site support the watershed needs (e.g., flood management, water quality improvement, habitat restoration)?

   **Response: Yes, this watershed has a significant potential need for this type of work, and due to urbanization, has a strong history of impact to streams and wetlands. Local water quality improvement is expected through improved land cover, reduced erosion, and improved quantity of buffer to reduce the potential impacts from ongoing agricultural operations.**

6. How will the site replace functions lost from the impacts (for mitigation banks, the bank sponsor should anticipate functions that may be lost from future impacts within the proposed service area)?

   **Response: The site, as demonstrated through the sureties, calculators, and standards set forth in the MBI, will have significant uplift and is justifiable in light of the impacts anticipated because of its implementation.**

7. How well is the site connected to existing natural resources (e.g., aquatic resources, forest, etc.)? How will the site contribute to Maryland's conservation goals (Maryland Watershed Resources Registry (WRR) https://watershedresourcesregistry.org/states/maryland.html, see WRR/Priority Conservation Areas)? Provide a map including items 7a, b, c, d, and h. Provide a separate map for item 7i.

   **Response: Mapping is included in, Figure 4.**

   a. Will the site expand upon existing Green Infrastructure HUBs or contribute to new or existing corridors? At the link below see "Priority Conservation Areas-Green Infrastructure" https://watershedresourcesregistry.org/map/?config=stateConfigs/maryland.json

   **Response: Yes, the site will expand on existing wildlife corridors.**

   b. Is the site located in FIDS habitat or abutting FIDS habitat?
      i. If yes, what benefits and detriments does the project provide to FIDS habitat?

   **Response: Yes, the mitigation sites are located within existing FIDS habitat as mapped by the Watershed Resource Registry, with the intention of the design to expand and enhance the surrounding habitat.**

   c. Is the site located within the Chesapeake or Coastal Bays Critical Area?

   **Response: No.**

   d. Is the site located within a State-designated Tier II watershed?

   **Response: No.**

   e. What are potential sources of colonization for the site?

   **Response: See collection of responses below.**

   f. What species do you anticipate colonizing the site after work is performed?

   **Response: Post construction it is anticipated that various aquatic species, including various amphibians and reptiles; fish species such as Pumpkinseed, Creek Chubsucker, Blacknose Dace, Creek Chub, and others; benthic macroinvertebrates such as stoneflies, midges, and other insects, snails, and bivalves; may all return and colonize the site.**

   g. How is work planned to benefit those species?

**Response:** **This will be achieved by creating more riffle diversity by adding the substrate needed for these species to spawn and all-around stream diversity with instream habitat, floodplain connection, and riparian buffer expansion and enhancement.**

h. What is the total acreage of the proposed mitigation site? (This is typically the total area that would be permanently protected as a result of the site including all mitigation types and potentially other environmental programs).

**Response:** **30.55 acres**

i. If the site is less than 50 Acres in size (contiguous), does it abut other protected lands?
ii. Is the site fragmented? (e.g. a series of smaller properties separated by development or agricultural lands).

**Response:** **The mitigation site is located on eight properties, owned by five private landowners.**

i. Describe how mitigation outcomes may be affected by climate change in the long-term (50-100 years).

**Response:** **The wetland restoration practices proposed here intended to create a depositional carbon and sediment sink in the floodplain, and be an overall climate resilient process, as recognized by the Intergovernmental Panel on Climate Change (IPCC). While the specifics of climate change are unknown at this time in terms of vegetation success, precipitation events, and extreme events, creating resilient practices is the best step towards a resilient project. Based on Sea Level Rise Vulnerability, the site could potential see an additional 5-10 feet of inundation and flooding. See Figure 8.**

8. Will the mitigation site location support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region? What is the reference community for the proposed mitigation site?

**Response:** **The mitigation proposes to create extensive physical habitat and additional substrates to enhance and create more diversity and quality throughout the project to support and introduce biota that has been lacking within this reach. We plan to conduct MBSS protocols for fish and macroinvertebrates at the MBI stage to inform design goals and objectives and formulate achievable performance criteria as well as during the active monitoring stage to assess performance.**

9. What Key Wildlife Habitat Types (MD DNR, 2015) and/or existing natural communities occur on site? Please consider nearby species, life histories of those species, and consult the Key Wildlife Habitat Types in the Maryland State Wildlife Action Plan. Do you anticipate adverse effects to any existing species as a result of the work?

   **Response: The Key Wildlife Habitat Types outlined in the Maryland State Wildlife Action Plan that are in and surrounding the project site are: Basic Mesic Forest, Mesic Mixed Hardwood Forest, Coastal Plain Floodplain, Coastal Plain Stream, Blackwater Stream, Coastal Plain Seepage Swamp, Vernal Pools, and Spring. We do not anticipate any adverse effects to any existing species, if anything we hope to improve them.**

*10.* Will the project result in significant tree clearing? Will it result in clearing of more the 2 acres of forest or other native plant communities that are 40 years or older? (Historic aerial photographs and tree diameter may help in making this determination). *Note that mitigation crediting may be substantially diminished for sites resulting in losses to native forest, shrub, and emergent communities. Clearing of some resources may be infeasible for a mitigation proposal due to adverse impacts.*

   **Response: No. Precision design implementation intends to preserve canopy through the construction process with only minor loss of poor quality, invasive, or dead trees.**

11. Does the site propose a conversion of the plant community? For example, a conversion from mature forest to scrub-scrub? If so, please explain whether this is to be considered a beneficial conversion. (*Example, conversion may be recommended for bog turtle habitat construction*).

   **Response: Areas of the design will include the conversion of the plant community. Particularly, areas of upland invasives would be intended to be altered to limit upland invasives in favor of wetland vegetation.**

12. Has native vegetation (>1 acre) been cleared on the site within the past five years? If so, was this a managed silviculture operation?

   **Response: Not to our knowledge, though limited use of forests for firewood was observed by the landowners in a few locations.**

13. Are there any known constraints related to construction access?

   **Response: No.**

## II. Screening Considerations for Stream Mitigation Sites

A. General Considerations

1. For Stream Channels: Using the Maryland Watershed Resources Registry: Maryland Stream Mitigation Framework (MSMF) Site Sensitivity Analysis for Stream Mitigation, please answer the following questions:
    a. What was the Mitigation Site Sensitivity Score for the Site (attach map)?

    **Response: The Mitigation Site Sensitivity Score for the Poplar Branch LLC, Witter and Barnes properties are rated 3, whereas, the Norris, and both Tippett properties are rated 2. See Figure 5.**

    b. Which incentives were indicated by the mapper?

    **Response: All the mitigation properties are in or within 1 mile of protected areas, priority conservation areas (targeted ecological areas, FIDS, biodiversity conservation network), habitat importance for imperiled species is essential. The Norris and both Tippett properties have a score of 2 and 3 for the suitability of wetland restoration and preservation, and 3 for riparian restoration. The Poplar Branch LLC, Witter, and Barnes properties have a score of 4 for wetland restoration, 5 for wetland preservation, and 4 for riparian restoration.**

    c. Based on the information provided in earlier sections of this report, please indicate why this score is appropriate for the mitigation site or why an adjustment to the score may be warranted for use in the Maryland Stream Mitigation Framework Version 1 Final.

    **Response: The Middle Potomac-Anacostia-Occoquan watershed (HUC 02070010) encompasses many of the urban and suburban areas of Charles, Prince George's, and Montgomery counties. This watershed has a significant potential need for this type of work, and due to urbanization, has a strong history of impact to streams and wetlands. Mitigation work here therefore meets historic needs for the replacement of these resources.**

    d. Please visit U.S. Geological Survey stream stats for the subject stream reaches. What is the % impervious cover? Is it over 50%?

    **Response: Overall, the impervious area is not over 50%. The outlet point on the Norris Property, which is the most downstream extent of the project; the impervious cover listed in StreamStats is 1.96% for Mill Swamp. Impervious cover for the remaining properties along Mill Swamp; Poplar Branch, Witter, and Barnes (combined) – 1.79%. The Tippett (agricultural) property along the unnamed tributary has a cover of 10%.**

2. For Stream Buffers: Based on item I.C.7, does the project provide benefits to Green Infrastructure and/or FIDS habitats? If so these may be substituted for

other factors in the Site Sensitivity Model (WRR) to determine the site sensitivity values for stream buffers.

**Response: Yes, all properties are located within FIDS habitats, and will provide connection between Green Infrastructure zones.**

3. Does the proposal include stream restoration?

   **Response: Yes.**

   a. If so, does the stream exhibit physical impairments?
      **Response: Yes.**

   b. What are the sources of impairment in each reach?
      **Response: Multiple habitat impairments are noted through the stream reaches. These include impacted or diminished benthic substrates, ditching, draining, entrenchment, lack of well-developed facet features, entrenchment, excessive transport of gravel sediments, and erosion. Extensive bare banks and erosion are also present, which limit in-channel temporal availability of habitat and quality of channel substrates.**

   c. In general, how do you propose to address the impairments to meet project goals?
      **Response: Restoration of the stream channel would focus on restoring facet features, in-channel habitats and substrates, and process-based approaches to improve floodplain connectivity and flow diversity. Floodplain reconnection approaches would be employed where additional hydraulic capacity is required.**

   d. Please include photos of each stream reach discussed and stream assessments if completed. These may be referenced if provided elsewhere in the SSMP.
      **Response: A photo log has been included in Appendix A of the Prospectus**

4. **Document.** Aquatic Connectivity: for perennial streams only
   a. Are there any barriers to aquatic movement between the streams of the proposed mitigation site and large downstream waters? (Large downstream waters are defined as tidal waters or streams/rivers of at least 20 square miles in drainage area)

   **Response: There are no known barriers that will limit aquatic movement as determined by a desktop evaluation of aerial imagery and field review of downstream properties along the Mill Swamp mainstem (Marbury properties).**

b. Do any barriers limit the potential suite of species that may colonize the site or the genetic health of the populations?

**Response:** **NA**

c. Will the proposed project remedy any of these barriers?

**Response:** **NA**

Note: *Connection to consistent perennial waterways is important for recolonization following extreme droughts, unexpected pollution discharge events, and long term ecological viability of a stream restoration or preservation site.*

5. Does topography or infrastructure laterally or vertically adversely affect the stream valley or stream profile?
   a. Will the proposed site plan remedy these constraints?
   b. How might lateral confinement or vertical limitations effect the proposed site plan/design?

**Response:** **There are multiple roadway and driveway culvert crossings that will need to be considered with the stream design. All crossings will remain, and potential passage barriers will be addressed as needed. The corridor is predominately not laterally confined by infrastructure. Buffer encroachment areas due to landowner maintenance activities will be restored to achieve minimum**

6. In general, does the site provide stream buffering of at least 35 feet on each side? (Buffering may occur as a credited stream buffer, a wetland, or other preserved area that contains native vegetation and is protected from development and disturbance.)

**Response:** **Yes.**

   a. What is, in general, the proposed buffer width on the stream reaches? (*May simply reference a site schematic if it contains a scale bar*).

**Response:** **In general, 35-feet, see Proposed Mitigation Map in Appendix A.**

7. What is the channel evolution trend for stream reaches on the site? You may describe using a channel evolution model of your choosing. (For example: Cluer and Thorne 2014, Schumm et al., 1984; Simon and Hupp, 1986

**Response:** **Rosgen model, C to F to G**

B. Water Contamination Screening:

*Please address any perennial stream reaches in your answers below. It may be best to describe by stream reach if they show different qualities. If water quality impairments are suspected, a detailed water quality assessment may be needed.*

1. Are waters on the site 303d listed for impairments other than sediment and nutrient pollution?
   **Response: No.**

2. Are there any known or suspected water quality impairments on the site?
   **Response: No.**

3. Does the water surface have an oily sheen or unusual froth?
   **Response: No.**

    a. If an oil sheen was observed, does the sheen stay broken when disturbed (tapped with stick, etc), or does it reconnect?
       **Response: NA**

4. Is the water a gray or blue-gray color?
   **Response: No**.

5. Does the water have an odor (chemical, oil, sewage, other)?
   **Response: No**.

6. Is there any known mining in the local watershed (typically only of concern in mountainous areas)? If so please provide specific conductance readings for stream reaches.
   **Response: No.**

7. Are stream substrates covered by excessive algae or film such as orange floculant, green algae, gray film, other unusual films (Do not include natural periphyton)?
   **Response: No**.

    a. Approximately what % of each stream reach is affected by the algae/film? **NA**

8. Has aquatic macroinvertebrate sampling been conducted on the site? If so, did the species observed differ substantially from expected species of a stream with clean water? (For example, a sample containing primarily chironomids, soldier fly larva, and Hydropsychid caddisflies are an indicator of poor water quality).

   **Response: No, not at this time, if required, sampling will occur once the MBI is approved.**

## III. Screening Considerations for Wetland Mitigation Sites

A. General Considerations

1. Using the Maryland Watershed Resources Registry: WRR Suitability Analysis, how does the site score for Wetland Restoration? Wetland Preservation?

   **Response: The site scores High/Mid for wetland restoration across all properties.**

B. Hydrologic Screening Considerations

1. Are hydrologic connections of the site (i.e., surface and subsurface hydrologic connections driving the wetland form and function) consistent with the proposed wetland and stream class?

   **Response: Both surface and subsurface hydrologic connections are driving the wetland's form and function, which will remain consistent throughout the design stage using process-based approaches and floodplain reconnection.**

2. Are the sources of hydrology and hydrodynamics achievable and sustainable?

   **Response: Yes, through process-based approaches and floodplain reconnection.**

3. Are the proposed water sources engineered or unnatural (e.g., municipal water)?

   **Response: No.**

4. Do activities involve impounding water or diverting water (including indirectly) from other areas to the project site? If so, will this affect the area or hydrologic classification of other wetlands or waterways on the site?

   **Response: No.**

5. Does the proposal include wetland establishment or creation of wetlands in dry land? What portion of the site will be considered "wetland establishment?" *Note that "wetland establishment"* proposals are considered higher risk as natural hydrology does not occur. *"Wetland establishment"* differs from *"wetland re-establishment",* where *"wetland re-establishment"* implies restoration of a resource that previously existed in a given location.

   **Response: Initial site investigations have revealed the presence of hydric soils, and downcutting into historic layers of soil. JMT regards the coastal geology as largely typical of the region here and would seek to restore wetlands through a combination of channel uplift practices and removal of historic ditching, draining, and fill.**

**Enhancement opportunities include grading of existing surface water wetlands to re-connect them to groundwater, lifting streams and groundwater to meet existing hydric or wetland areas, remove invasive species, and restore native vegetation. Additional enhancement opportunities can be found by increasing the wetland buffer, removing trash and unnatural debris, and planting additional native species for pollinator benefits.**

## IV. Screening Considerations for Fish Passage Projects

***Fish Passage Credit is currently not being request for this project. There have been discussions with the IRT regarding the potential for the project to enhance anadromous fish habitat.***

### A. General Screening Considerations

*Note 1: Credited fish passage projects are limited to dams only as of July 2023. Additional capabilities to consider culverts and other small barriers are being discussed, however no method is available to award credits in the Baltimore District. This section refers to fish passage projects for mitigation, however where mitigation credits for stream restoration are also sought, sections I. and II. provide screening details for restoration efforts within the stream through the stream mitigation calculation tabs 3 and 4 in MSMF V.1 Final.*

*Note 2: Fish Passage Crediting (measured in functional feet) and Stream restoration crediting (also measured in functional feet) are independent calculations. Stream restoration crediting requires permanent site protection (see Section I.) while Fish Passage Crediting does not require permanent site protection. See Fish Passage for Mitigation User Manual for more details.*

1. Using the Freshwater Network, what priority tier is the barrier for anadromous fish passage? Resident fish passage? Results are used in the Fish Passage for Mitigation Calculator. The Freshwater Network: https://maps.freshwaternetwork.org/chesapeake/
2. How large is the functional network before and after barrier removal?
3. Other barriers: From satellite imagery, can you identify any additional barriers in the watershed which may limit the function network?
4. Contamination: Are there any known contaminants in the impoundment sediment? If so, what are they and how will they be managed? *Note: detailed sediment analysis may be required at a later stage.*
5. Sediment management: How do you propose sediment will be managed for the project? How much sediment will be removed as a result of the project? How much sediment will be released? Please estimate the volume of both for each grain size (clay, silt, sand, gravel, cobble).
6. Has the project been coordinated with Maryland DNR (Environmental Review) regarding potential impacts to brook trout or other potential adverse impacts?

REFERENCES

Cluer, B., and C. Thorne. 2014. A stream evolution model integrating habitat and ecosystem benefits. River Research and Applications 30(2):135-154.

The Environmental Protection Agency. EnviroAtlas Interactive Map.
https://www.epa.gov/enviroatlas/enviroatlas-interactive-map

The Environmental Protection Agency. EJ Screening Tool 2.0. https://www.epa.gov/ejscreen

The Environmental Protection Agency. How's my waterway tool.
https://mywaterway.epa.gov/

Knauer, E., Martin, S., Topping, B., Hough, P., and French, E. 2022. Bank Instrument Review Workbook and Checklist. Document No. EPA-840-B-22005

Maryland Department of the Environment. MDE EJ Screening Tool.
https://mdewin64.mde.state.md.us/EJ/

Maryland Department of the Environment. 2009 Revised 2014. Maryland Biological Stressor Identification Process. Pg. 19 and Appendix A-11.

Maryland Department of Natural Resources. 2015. Maryland State Wildlife Action Plan.
https://dnr.maryland.gov/wildlife/Pages/plants_wildlife/SWAP_Submission.aspx

Maryland Watershed Resources Registry:
https://watershedresourcesregistry.org/states/maryland.html

Morgan et al. 2012. Stream Conductivity: Relationships to Land Use, Chloride, and fishes in Maryland Streams. North American Journal of Fisheries Management. 32:941-952, 2012.

The Nature Conservancy (and resource agency partners). The Freshwater Network: Chesapeake Bay Fish Passage Prioritization Tool.
https://maps.freshwaternetwork.org/chesapeake/

Schumm, S.A., M.D. Harvey and C.C. Watson. 1984. Incised Channels, Morphology, Dynamics and Control. Water Resources Publications, Littleton, Colorado. 200 pp.

Simon, A., and C.R. Hupp. 1986. Channel evolution in modified Tennessee channels. Proceedings, Fourth Federal Interagency Sedimentation Conference, Las Vegas, March 24–27 1986, vol. 2, pp. 5-71 to 5–82.

U.S. Army Corps of Engineers: Baltimore District. Fish Passage for Stream Mitigation Beta Tool. August 2022.

U.S. Army Corps of Engineers: Baltimore District. The Maryland Stream Mitigation Framework Version 1. June 2023.

U.S. Army Corps of Engineers: Norfolk District. Mitigation Site Evaluation Checklist

USACE and EPA. The Final Mitigation Rule. 2008. 33CFR 332. https://www.epa.gov/cwa-404/compensatory-mitigation-losses-aquatic-resources-under-cwa-section-404-final-rule

**Figure 1**
EJ Community Report

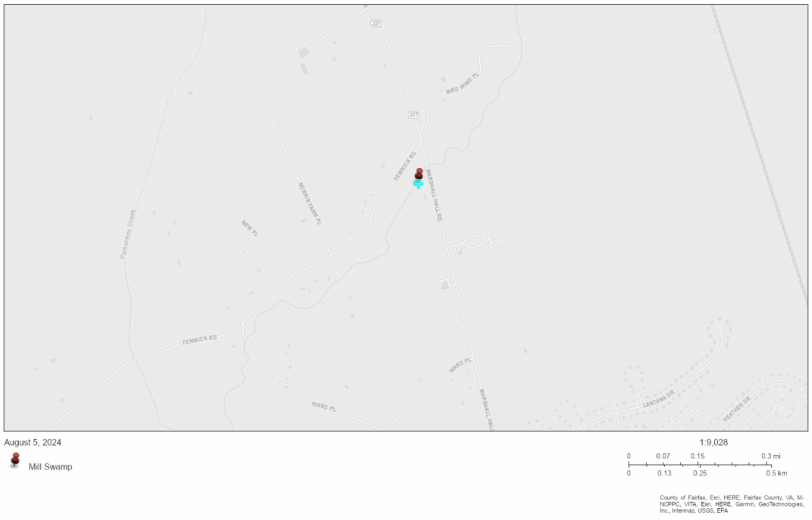
FIGURE 1

# EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## Charles County, MD

1 mile Ring Centered at 38.658387,-77.078898
Population: 548
Area in square miles: 3.14




### LANGUAGES SPOKEN AT HOME

| LANGUAGE | PERCENT |
|---|---|
| No language data available. | |

### COMMUNITY INFORMATION

Low income: 13 percent
People of color: 72 percent
Less than high school education: 1 percent
Limited English households: 0 percent
Unemployment: 6 percent
Persons with disabilities: 6 percent
Male: 41 percent
Female: 59 percent
82 years
Average life expectancy
$45,852
Per capita income
Number of households: 177
Owner occupied: 96 percent

### BREAKDOWN BY RACE

White: 28%
Black: 43%
American Indian: 0%
Asian: 9%
Hawaiian/Pacific Islander: 0%
Other race: 0%
Two or more races: 9%
Hispanic: 11%

### BREAKDOWN BY AGE

| | |
|---|---|
| From Ages 1 to 4 | 6% |
| From Ages 1 to 18 | 21% |
| From Ages 18 and up | 79% |
| From Ages 65 and up | 13% |

### LIMITED ENGLISH SPEAKING BREAKDOWN

| | |
|---|---|
| Speak Spanish | 0% |
| Speak Other Indo-European Languages | 0% |
| Speak Asian-Pacific Island Languages | 0% |
| Speak Other Languages | 0% |

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

*Report for 1 mile Ring Centered at 38.658387,-77.078898*
*Report produced August 5, 2024 using EJScreen Version 2.3*

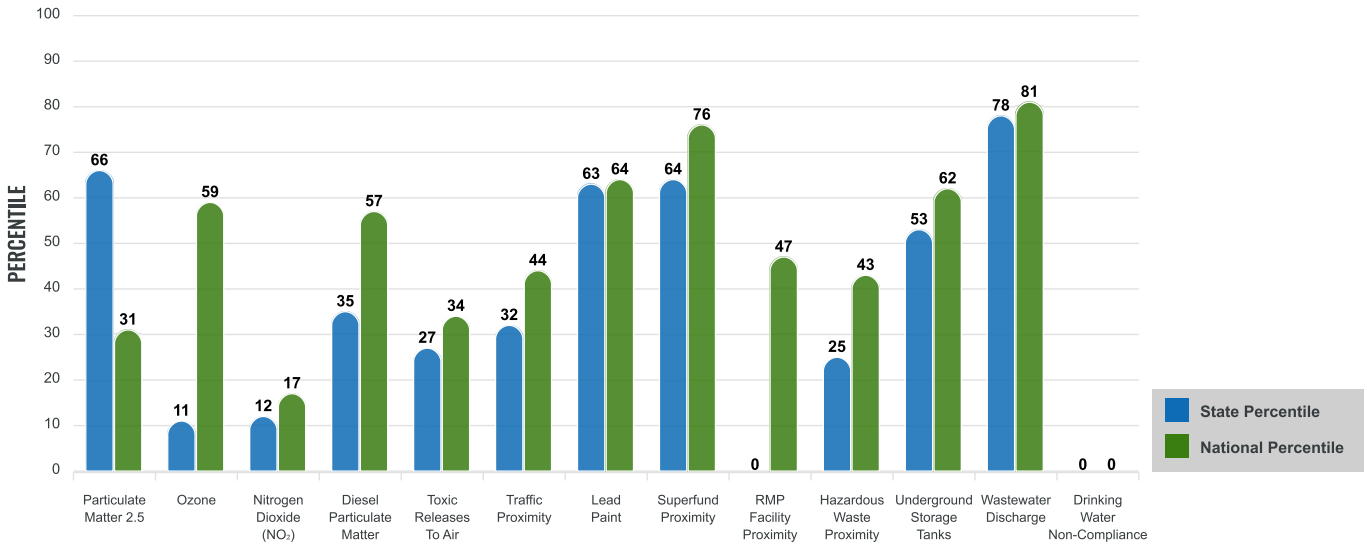
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

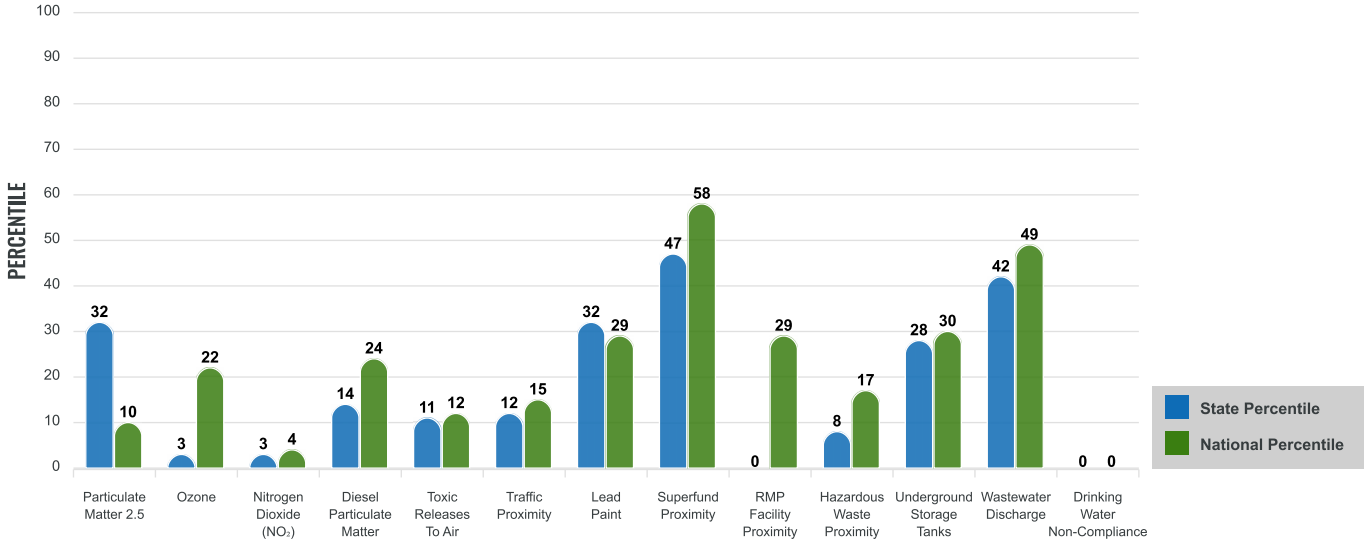
### EJ INDEXES FOR THE SELECTED LOCATION




## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low income, percent persons with disabilities, percent less than high school education, percent limited English speaking, and percent low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION




*Report for 1 mile Ring Centered at 38.658387,-77.078898*

*Report produced August 5, 2024 using EJScreen Version 2.3*

# EJScreen Environmental and Socioeconomic Indicators Data

| SELECTED VARIABLES | VALUE | STATE AVERAGE | PERCENTILE IN STATE | USA AVERAGE | PERCENTILE IN USA |
|---|---|---|---|---|---|
| **ENVIRONMENTAL BURDEN INDICATORS** | | | | | |
| Particulate Matter 2.5 ($\mu g/m^3$) | 6.94 | 6.81 | 54 | 8.45 | 17 |
| Ozone (ppb) | 38.9 | 41.9 | 6 | 41 | 39 |
| Nitrogen Dioxide ($NO_2$) (ppbv) | 3.2 | 7.3 | 4 | 7.8 | 7 |
| Diesel Particulate Matter ($\mu g/m^3$) | 0.137 | 0.208 | 21 | 0.191 | 42 |
| Toxic Releases to Air (toxicity-weighted concentration) | 67 | 430 | 15 | 4,600 | 20 |
| Traffic Proximity (daily traffic count/distance to road) | 250,000 | 1,500,000 | 19 | 1,700,000 | 28 |
| Lead Paint (% Pre-1960 Housing) | 0.21 | 0.32 | 49 | 0.3 | 49 |
| Superfund Proximity (site count/km distance) | 0.11 | 0.28 | 51 | 0.39 | 61 |
| RMP Facility Proximity (facility count/km distance) | 0.069 | 0.52 | 0 | 0.57 | 29 |
| Hazardous Waste Proximity (facility count/km distance) | 0.28 | 4.4 | 12 | 3.5 | 26 |
| Underground Storage Tanks (count/$km^2$) | 0.54 | 1.9 | 40 | 3.6 | 45 |
| Wastewater Discharge (toxicity-weighted concentration/m distance) | 5100 | 140000 | 74 | 700000 | 85 |
| Drinking Water Non-Compliance (points) | 0 | 0.045 | 0 | 2.2 | 0 |
| **SOCIOECONOMIC INDICATORS** | | | | | |
| Demographic Index USA | 1.44 | N/A | N/A | 1.34 | 61 |
| Supplemental Demographic Index USA | 0.8 | N/A | N/A | 1.64 | 6 |
| Demographic Index State | 1.44 | 1.36 | 57 | N/A | N/A |
| Supplemental Demographic Index State | 0.62 | 1.33 | 8 | N/A | N/A |
| People of Color | 72% | 50% | 68 | 40% | 79 |
| Low Income | 13% | 22% | 39 | 30% | 23 |
| Unemployment Rate | 6% | 5% | 65 | 6% | 64 |
| Limited English Speaking Households | 0% | 3% | 0 | 5% | 0 |
| Less Than High School Education | 1% | 9% | 12 | 11% | 12 |
| Under Age 5 | 6% | 6% | 65 | 5% | 65 |
| Over Age 64 | 13% | 17% | 40 | 18% | 38 |

*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

### Sites reporting to EPA within defined area:

| | |
|---|---|
| Superfund | 0 |
| Hazardous Waste, Treatment, Storage, and Disposal Facilities | 0 |
| Water Dischargers | 1 |
| Air Pollution | 0 |
| Brownfields | 0 |
| Toxic Release Inventory | 0 |

### Other community features within defined area:

| | |
|---|---|
| Schools | 0 |
| Hospitals | 0 |
| Places of Worship | 0 |

### Other environmental data:

| | |
|---|---|
| Air Non-attainment | Yes |
| Impaired Waters | Yes |

| | |
|---|---|
| Selected location contains American Indian Reservation Lands* | No |
| Selected location contains a "Justice40 (CEJST)" disadvantaged community | No |
| Selected location contains an EPA IRA disadvantaged community | No |

*Report for 1 mile Ring Centered at 38.658387,-77.078898*

*Report produced August 5, 2024 using EJScreen Version 2.3*

# EJScreen Environmental and Socioeconomic Indicators Data

## HEALTH INDICATORS

| INDICATOR | VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
|---|---|---|---|---|---|
| Low Life Expectancy | 16% | 19% | 20 | 20% | 17 |
| Heart Disease | 3.9 | 5 | 23 | 5.8 | 14 |
| Asthma | 10 | 10.3 | 51 | 10.3 | 43 |
| Cancer | 5.3 | 6.3 | 29 | 6.4 | 26 |
| Persons with Disabilities | 6.4% | 12.1% | 12 | 13.7% | 9 |

## CLIMATE INDICATORS

| INDICATOR | VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
|---|---|---|---|---|---|
| Flood Risk | 10% | 7% | 82 | 12% | 65 |
| Wildfire Risk | 0% | 1% | 0 | 14% | 0 |

## CRITICAL SERVICE GAPS

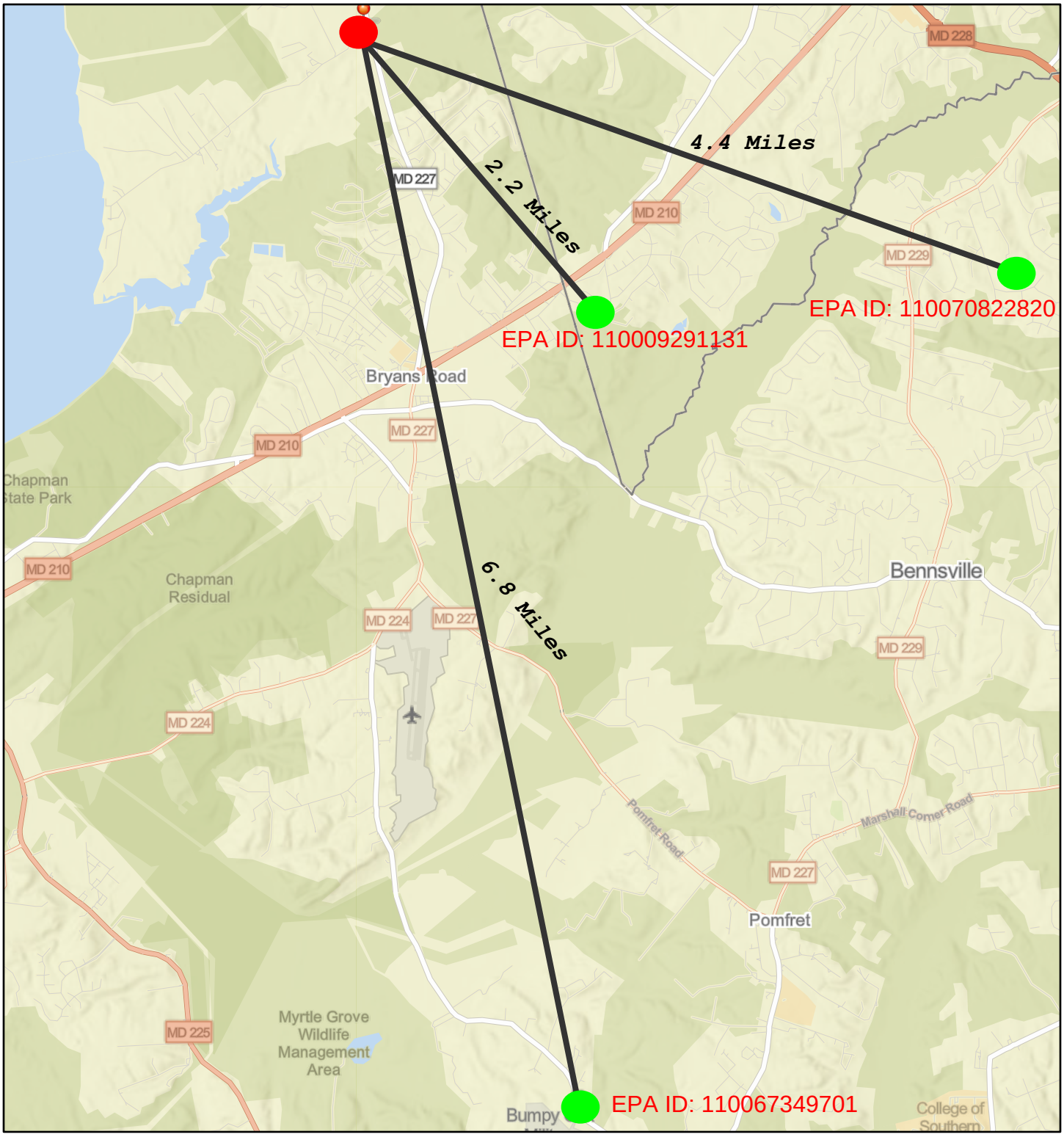
| INDICATOR | VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
|---|---|---|---|---|---|
| Broadband Internet | 5% | 10% | 43 | 13% | 33 |
| Lack of Health Insurance | 5% | 6% | 57 | 9% | 37 |
| Housing Burden | No | N/A | N/A | N/A | N/A |
| Transportation Access Burden | Yes | N/A | N/A | N/A | N/A |
| Food Desert | No | N/A | N/A | N/A | N/A |

*Report for 1 mile Ring Centered at 38.658387,-77.078898*

*Report produced August 5, 2024 using EJScreen Version 2.3*

**Figure 2**
Brown Field & Superfund Exhibit

# Figure 2 - EnviroAtlas Map Export: Brownfield and Superfund Sites




8/6/2024, 12:39:38 PM

1:72,224

0 0.5 1 2 mi

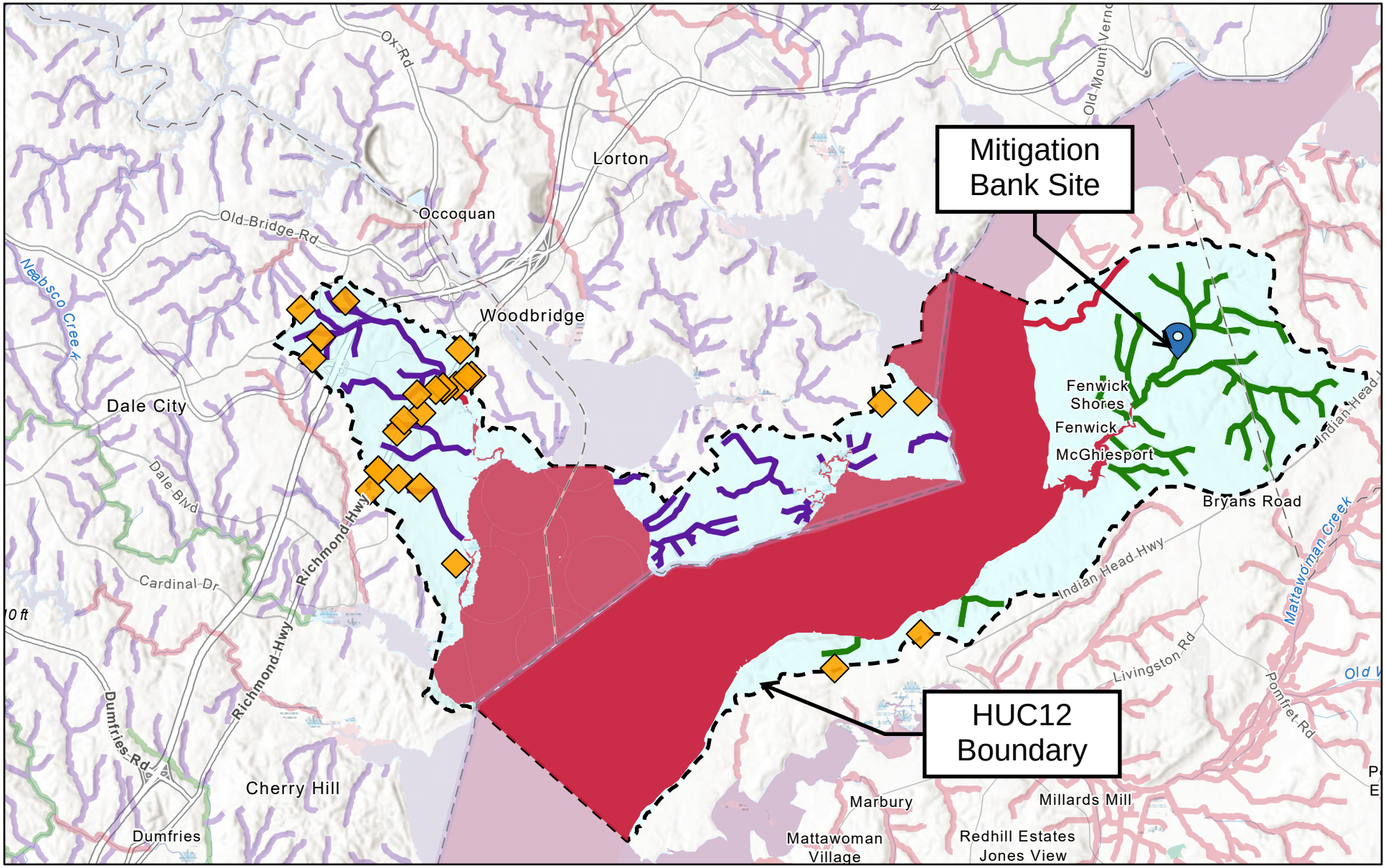
0 0.75 1.5 3 km

Superfund Sites (SEMS)

Mitigation Bank Site

**Figure 3**
MyWaterway – Permitted Discharges Exhibit

# Figure 3
# My Waterway - Permitted Discharges




8/6/2024

1:144,448

0 1 2 4 mi

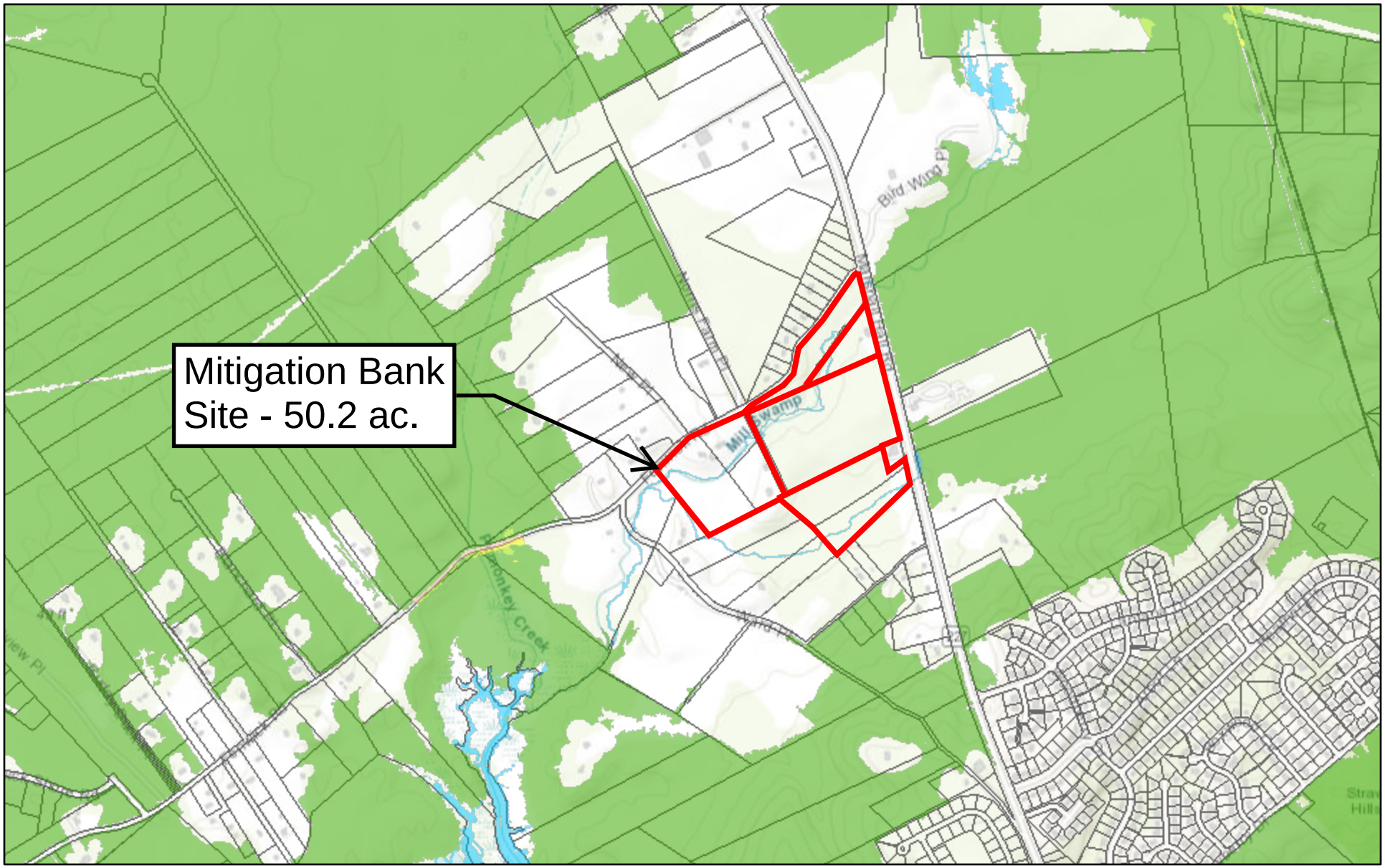
0 1.5 3 6 km

Esri, NASA, NGA, USGS, Fairfax County, VA, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA,

- Waterbody: Good
- Waterbody: Impaired
- Waterbody: Condition Unknown
- Permitted Discharger

**Figure 4**
Existing Natural Resources Map

# FIGURE 4
# Water Resource Registry - Existing Natural Resources




8/6/2024, 11:08:07 AM

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Maryland Green Infrastructure - Green Infrastructure Hubs Corridors and Gaps
- Upland Hubs
- Wetland Hubs
- Aquatic Hubs
- Upland Corridor: Natural
- Aquatic Corridor: Natural
- Upland Corridor: Restorable Gap
- Aquatic Corridor: Restorable Gap
- Upland Corridor: Non-Restorable
- Aquatic Corridor: Non-Restorable
- Parcel Boundaries
- Easement Boundary

Catchments
- Assimilative Capacity Remaining
- No Assimilative Capacity Remaining
- Stream Segments
- Baseline Stations

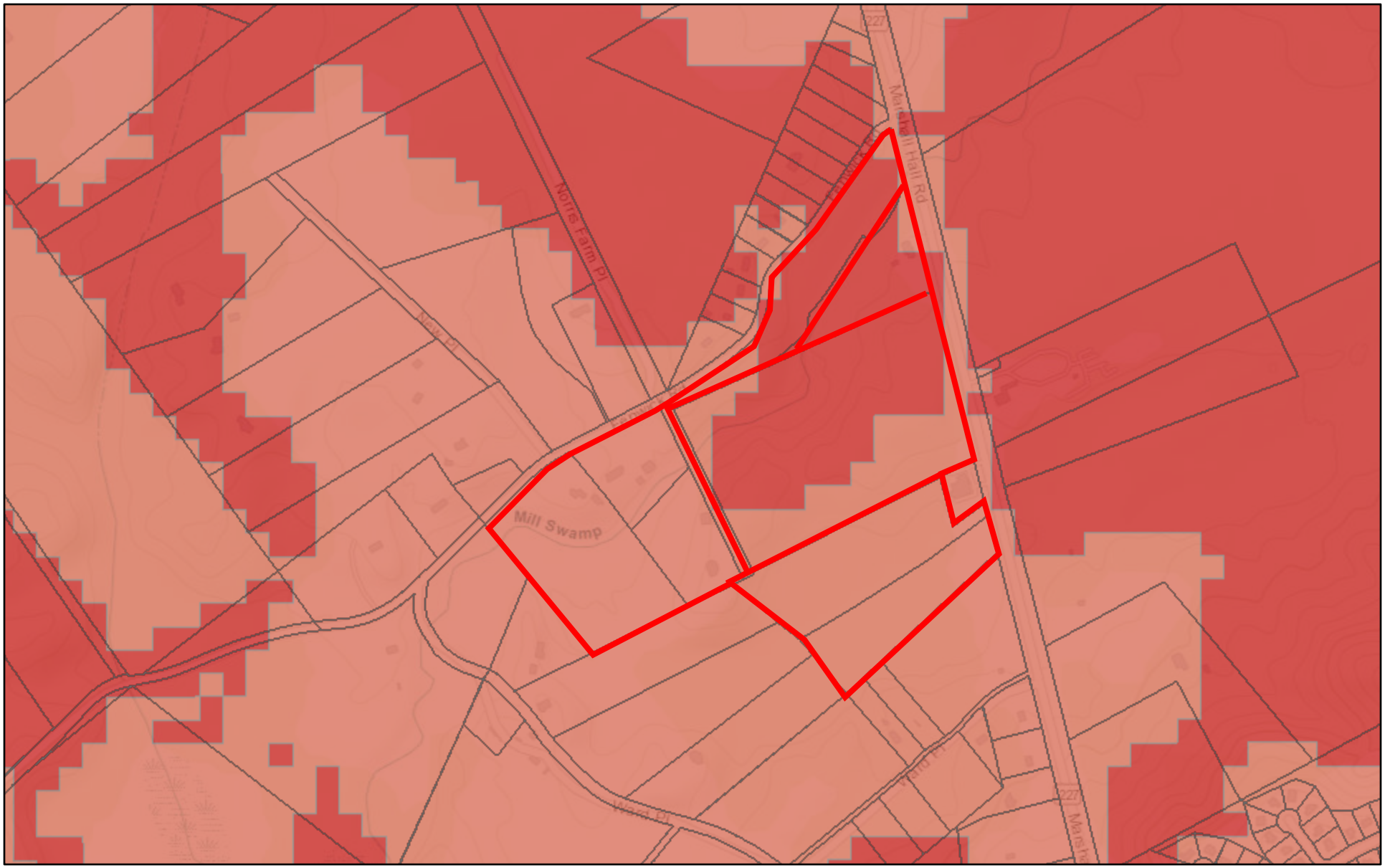
MD iMAP, MDP, SDAT, MD iMAP, DNR, Creator: Maryland Department of the Environment, Water and Science Administration (MDE WSA), Fairfax County,

ArcGIS Web AppBuilder

Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | MD iMAP, DNR MGS, NOAA, Maryland Coastal Zone Management Program | MD iMAP, DNR | MD iMAP, MDP, MDA | MD iMAP, DNR | MDE, WSA | WSA, MDE | MD

**Figure 5**
Site Sensitivity Score

# FIGURE 5
# Water Resource Registry - Site Sensitivity Score




8/6/2024, 11:25:42 AM

Parcel Boundaries

Mitigation Site Sensitivity Score (0-3)

0

1

2

3

Easement Boundary

1:9,028

0 0.05 0.1 0.2 mi

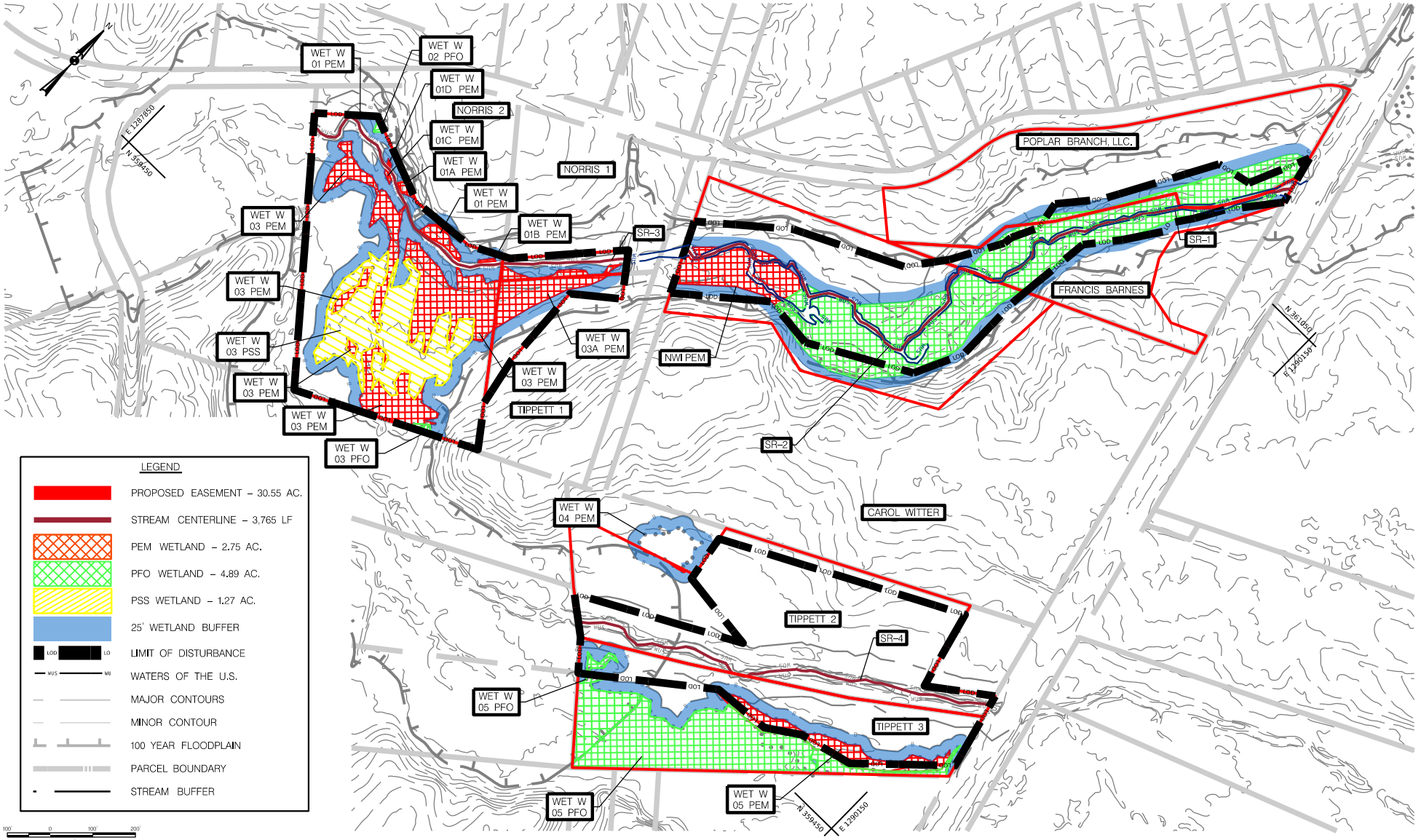
0 0.07 0.15 0.3 km

MD iMAP, MDP, SDAT, Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

ArcGIS Web AppBuilder

Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA | MD iMAP, DNR MGS, NOAA, Maryland Coastal Zone Management Program | MD iMAP, DNR | MD iMAP, MDP, MDA | MD iMAP, DNR | MDE, WSA | WSA,

**Figure 6**
Site Resources Map




BY: KHiggins –

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE CHARLES SOIL CONSERVATION DISTRICT.

CHARLES SOIL CONSERVATION DISTRICT _____ DATE _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR OF THE DEPT. OF PLANNING & ZONING _____ DATE _____


DESIGN PROFESSIONAL
JEREMY KOSER
JOHNSON, MIRMIRAN & THOMPSON
40 WIGHT AVENUE
COCKEYSVILLE, MD 21030
TEL: 410-316-7360
EMAIL: JKoser@jmt.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____, EXPIRATION DATE: _____.

OWNER / DEVELOPER INFORMATION
JOHNSON, MIRMIRAN & THOMPSON
40 WIGHT AVE.
COCKEYSVILLE, MD 21030

CONTACT
JEREMY KOSER
40 WIGHT AVE.
COCKEYSVILLE, MD 21030
TEL: 410-316-7360


# MILL SWAMP MITIGATION BANK

MARYLAND COORDINATE SYSTEM – HOR. NAD 8391 MD STATE PLANE VERT. NAVD 88

BRYANS ROAD, MD 20616

CHARLES COUNTY ELECTION DISTRICT: 7 CONGRESSIONAL DISTRICT: 5

REVISIONS

NOT FOR CONSTRUCTION

## EXISTING SITE RESOURCES MAP

SCALE AS SHOWN DATE NOVEMBER 2024 PROJECT NO. 19-03123-002

DESIGNED BY KNH COUNTY CHARLES COUNTY

DRAWN BY GLZ LOGMILE N/A

CHECKED BY JJM HORIZONTAL SCALE N/A

F.A.P. NO. N/A VERTICAL SCALE N/A

DRAWING NO. SRM-01 OF 01 SHEET NO. 1 OF 1

**Figure 7**
Airport Zoning Report

Figure 8

Maryland Aviation Administration – Airport Zoning

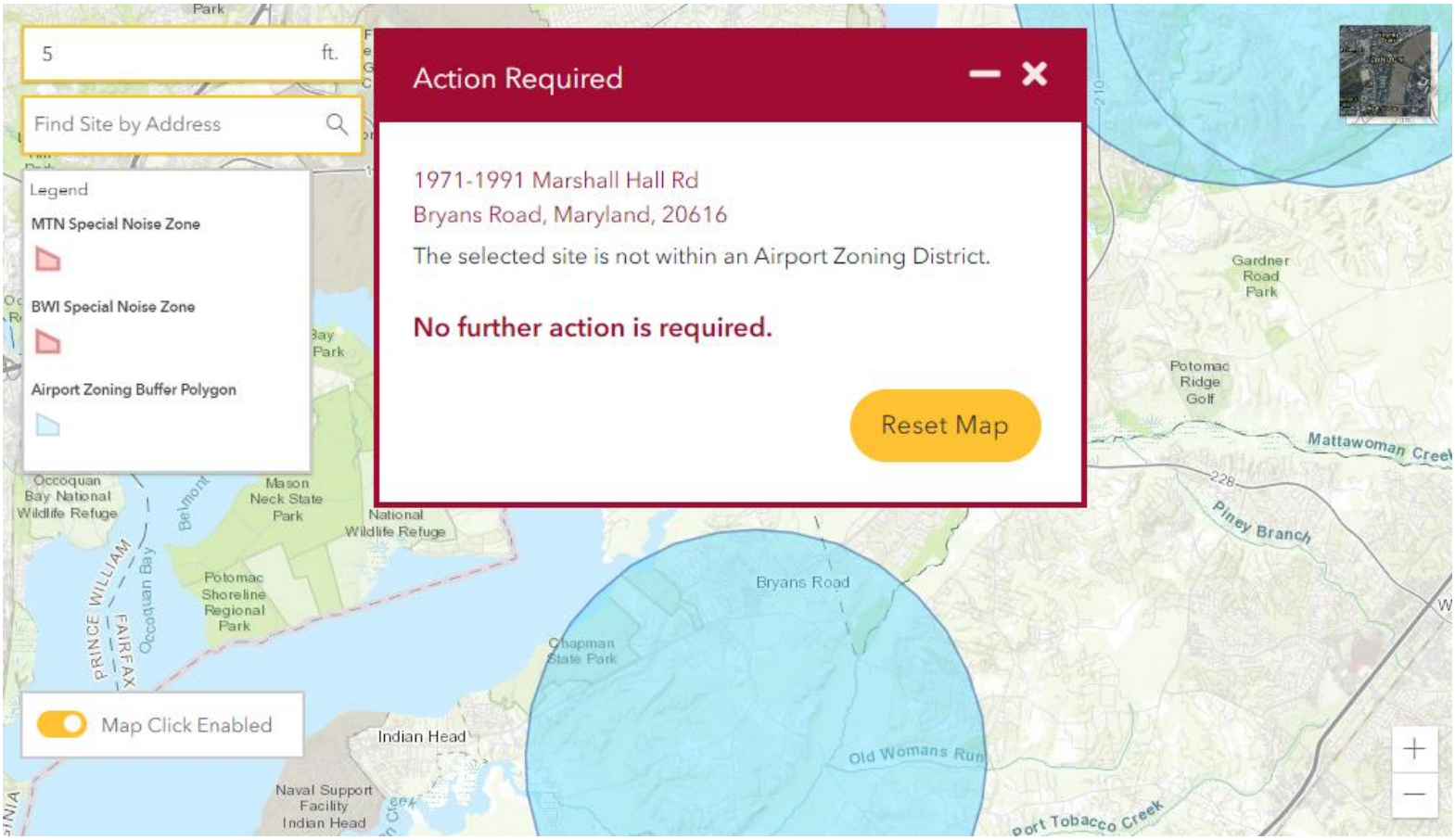
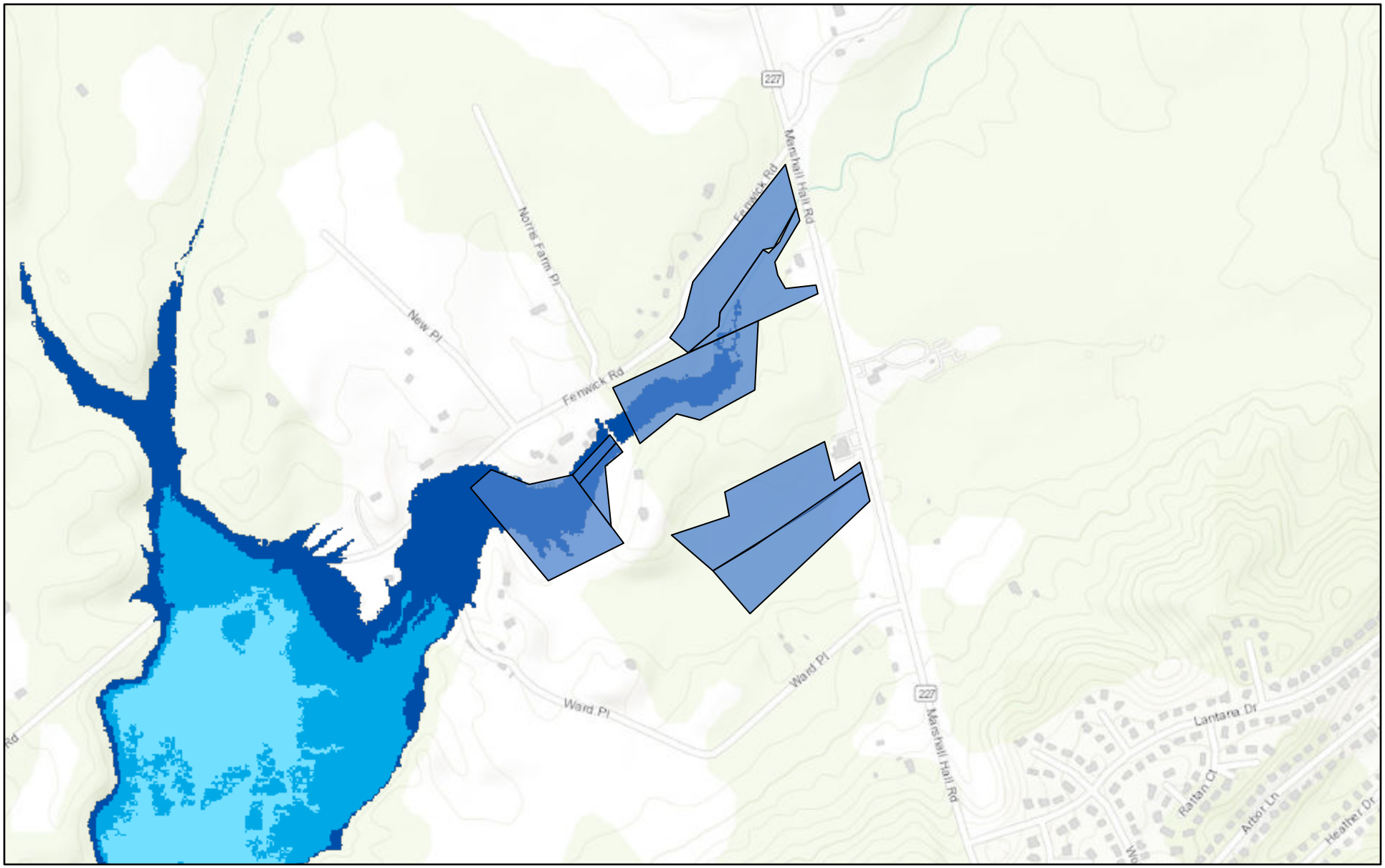


**Figure 8**
Climate Change Exhibit

# MERLIN Onine




8/12/2024, 11:26:20 AM

MillSwamp_Easement

5 to 10 Foot Inundation

2 to 5 Foot Inundation

0 to 2 Foot Inundation

1:11,360

0 0.07 0.15 0.3 mi

0 0.1 0.2 0.4 km

Fairfax County, VA, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, MD iMap, DNR

# APPENDIX C

NOT FOR PUBLIC NOTICE