



# FINAL COMPENSATORY MITIGATION PLAN

### **KEY BRIDGE REBUILD PROJECT**

BALTIMORE CITY, ANNE ARUNDEL COUNTY, AND BALTIMORE COUNTY, MD



# **JUNE 2025**

# **Prepared For:**



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### I. Introduction

The Maryland Transportation Authority's (MDTA) Key Bridge Rebuild Project (Project) will replace a preexisting critical tolled bridge and related infrastructure associated with I-695 (Baltimore Beltway) over the Patapsco River in Baltimore City, Anne Arundel County, and Baltimore County, Maryland. Construction of the Project will result in unavoidable permanent impacts to resources regulated under Section 404 of the Clean Water Act, Maryland Nontidal Wetlands Protection Act, and Maryland Tidal Wetlands regulations including nontidal wetlands, nontidal waterways, and tidal open waters. Mitigation for permanent impacts to these resources will be provided in accordance with the guidelines of Section 404(b)1 of the Clean Water Act. This Compensatory Mitigation Plan details the impacts to these resources and the compensatory mitigation package proposed to replace the functions and values of the impacted resources resulting from construction of the Project.

# II. Project Background

The Project includes construction of a new bridge over the Patapsco River to reconnect the Baltimore Beltway. The project area extends along I-695 from Quarantine Road in Curtis Bay, Baltimore City; through a small portion of Anne Arundel County; to Broening Highway in Dundalk, Baltimore County. See **Appendix A** for the Project location map.

The new bridge will be constructed to meet current roadway and bridge design and safety standards, and navigational clearance requirements. The final alignment of the new bridge will remain entirely within MDTA right-of-way. The roadway centerline of the main span of the new bridge will be offset from the existing centerline by 260 feet to the east and the centerline of the main span will be offset 25 feet to the south to align with the centerline of the federal navigation channel.

MDTA and Maryland State Highway Administration (SHA) prepared two emergency Categorical Exclusions (CE) for the Project in accordance with the National Environmental Policy Act (NEPA) for Federal Highway Administration's (FHWA) approval; one for debris removal (approved by FHWA on April 5, 2024) and one for construction of the new bridge (approved by FHWA on July 17, 2024). Re-evaluations are being prepared to evaluate impacts associated with changes in design and to confirm the Project remains in conformance with the emergency CEs.

# III. Impacts

**Table 1** presents a summary of the aggregate permanent impacts to wetlands and waters of the U.S. (WOTUS) associated with the Project. Wetland and waterway impacts occur within the MDE 8-digit watershed – Baltimore Harbor (02130903) and the larger Federal Hydrologic Unit Code 8-digit (HUC 8) watershed – Gunpower-Patapsco (02060003).

**Table 1. Impact Summary** 

		Baltimore Harbor
NON-TIDAL WAT	ERS	TOTAL
Intermittent/Perennial	Linear Feet (LF)	299 LF
(permanent)	Square Feet (SF)	936 SF
NON-1	TIDAL WETLANDS	
Palustrine Emergent	Acres (AC)	3.12 AC
(permanent)	Square Feet (SF)	135,789 SF
Palustrine Unconsolidated Bottom	Acres (AC)	0.45 AC
(permanent)	Square Feet (SF)	19,571 SF
TIDAL OPEN V	VATERS (Patapsco Rive	er)
Estuarine Tidal - Open Water	Acres (AC)	0.56 AC
(permanent)	Square Feet (SF)	24,383 SF
Estuarine Tidal – Open Water	Acres (AC)	0.25 AC
(temporary)	Square Feet (SF)	10,605 SF

Unavoidable permanent impacts to non-tidal wetlands and waterways include 299 linear feet of intermittent/perennial streams, 3.12 acres of palustrine emergent wetlands, and 0.45 acre of palustrine unconsolidated bottom wetlands. These impacts will occur from the roadway and marine approaches on Hawkins Point, adjustments to stormwater management facilities, grading, and embankments. The proposed permanent non-tidal wetlands and waters impacts will occur within the footprint of the final alignment where wetlands and waters have been historically altered to a considerable degree by various projects. Field investigations confirmed that due to the altered nature of the areas, these wetlands and waters are low quality with functions and values being limited to sediment/toxicant retention and wildlife habitat.

Unavoidable permanent impacts to tidal open waters requiring mitigation are limited to 0.56 acre and result from pile supported bridge pier foundations and pile supported vessel protection systems. Existing main span piers (Piers 17 and 18) will remain as pier protection elements for the new main span piers. The remaining piers and foundations will be removed to the mudline and therefore will not be utilized to offset permanent impacts from the new bridge structures within tidal waters.

# IV. Twelve Mitigation Plan Components

In accordance with MDE's Nontidal Wetland Phase I Mitigation Plan – Required Information (2020) and 33 CFR part 332 Compensatory Mitigation for Losses of Aquatic Resources dated April 10, 2008, the MDTA team has prepared the following information.

### 1. Project Objectives

The proposed compensatory wetland and waters mitigation plan includes non-tidal wetland and stream mitigation bank credit purchases and derelict crab pot removal. The mitigation package was developed to offset the impacts associated with the Project and is based on coordination with United States Army Corps

of Engineers (USACE), Maryland Department of the Environment (MDE), National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries), the Maryland Department of Natural Resources (MDNR), and other regulatory agencies.

Several mitigation options were considered and are detailed in **Section 2** but ultimately MDTA decided to pursue off-site permittee-responsible mitigation in the form of derelict crab pot removal for tidal open water impacts and purchasing mitigation credits for non-tidal wetland and stream impacts.

Impacts to non-tidal palustrine emergent (PEM, 3.12 acres/135,7899 square feet) wetlands will be mitigated at a 1:1 ratio through purchasing credits from Peige Wetland Mitigation Bank and/or Pheasant Run Wetland and Stream Mitigation Bank which are in the same federal HUC-8 watershed – Gunpowder-Patapsco (the primary service area) as the Project. USACE and MDE are not requiring mitigation for impacts to non-tidal open water (PUB, 0.45 acres/19,571 square feet).

Impacts to non-tidal streams (approximately 54 functional feet) will be mitigated through purchasing credits from Pheasant Run Wetland and Stream Mitigation Bank. Functional feet will be identified utilizing the Maryland Stream Mitigation Framework Calculator (MSMFC). This value of 54 functional feet is considered an estimate until it has been confirmed by MDE and USACE.

The impacts to tidal open water that were included in the Draft CMP were originally estimated to be up to 12.7 acres. However, the design has been refined, and it has been determined that tidal open water impacts will be 0.56 acres/24,383 square feet. These tidal open water impacts will be mitigated at a 2:1 ratio through derelict crab pot removal.

Table 2. Total Wetland and Waterway Impacts and Mitigation Requirements

Resource	Impacts Requiring Mitigation Acres (AC)/ Square Feet (SF) of Linear Feet (LF)	Proposed Mitigation	Compensatory Mitigation Ratio	Compensatory Mitigation Required Acres (AC)/Functional Feet (FF)
Non-tidal PEM	3.12 AC 135,789 SF	Non-tidal wetland mitigation bank credits	1:1	3.12 AC
Non-tidal PUB	0.45 AC 19,571 SF	Mitigation is not required by USACE and MDE	N/A	N/A
Non-tidal stream (P/I)	299 LF	Non-tidal stream mitigation bank credits	N/A	54 FF
Tidal Open Water	0.56 AC 23,880 SF	Derelict crab pot removal	1,400 pots / acre <sup>1</sup>	0.56 AC (784 pots)

 $<sup>^{1}</sup>$ 1,400 pots per acre reflects a 2:1 mitigation requirement

#### 2. Site Selection

Mitigation for non-tidal wetland impacts was identified early in the site selection process by searching the Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS). Because tidal wetland mitigation bank credits are not currently available in Maryland, permitting and other stakeholder agencies were presented with an initial list of potential tidal mitigation options during weekly meetings and asked to provide comments on their preferences as discussed below. Once the preferred mitigation options were identified, a watershed approach was used to identify suitable mitigation sites within the MDE 8-digit watershed (Baltimore Harbor) and Federal HUC 8-digit watershed (Gunpowder-Patapsco) and within close proximity to the Project.

### 2.1. Non-tidal Wetland and Stream Mitigation

The USACE regulations for Compensatory Mitigation for Losses of Aquatic Resources (33 CFR 332) prioritize using approved mitigation banks whenever possible. Therefore, a search of RIBITS was conducted to determine if approved banks with non-tidal wetland credits are available within the project service area. Currently RIBITS shows two approved banks with credits available servicing the project, the Peige Wetland Mitigation Bank and the Pheasant Run Wetland and Stream Mitigation Bank. Required mitigation credits will be purchased from these approved banks.

### 2.2. Tidal Mitigation

An initial list of potential tidal mitigation activities was presented to permitting and stakeholder agencies during weekly and monthly interagency meetings to gather comments on which activities would be preferred to include in a tidal mitigation package. Activities initially presented are included in the list below. Those in **bold** were carried forward for further investigation based on agency comments and are discussed below. All others were not considered further after the initial agency meeting because the activities either couldn't provide measurable functional uplift and/or would be too far from the project site.

- Tidal Habitat Creation and/or Re-Establishment
- Oyster Reef Expansion
- Derelict Crab Pot Removal
- Dam Removal
- Artificial Reef Enhancement
- Capping Contaminated Sediments
- SAV Habitat Restoration/Planting
- SAV Seed Processing Plant
- Invasive Species Removal
- Derelict Vessel Locating and Removal
- Abandoned Marina/Pier/Pilings Removal
- Fisheries Research
- Spawning Habitat Enhancement
- Enhancements (land acquisition for waterfront parkland, pier/waterfront access)
- Shoreline Access Improvements (roads, trails, ramps, piers)
- Climate Resiliency projects
- Removal of historic fill

### a. Derelict Crab Pot Removal

Crab pots are the predominant derelict fishing gear found in the Chesapeake Bay because of the large number deployed, a relatively high loss rate (12-20%), and the long fishing season (April to November) (Scheld 2016). ORP created a hotspot graphic showing the predicted density of derelict crab pots in the Upper Chesapeake Bay (Figure 1). Based on ORP's prediction model, derelict crab pots are concentrated near the confluences of most rivers and the Bay. Based on ORP's predictions, derelict crab pot removal efforts would focus on the mouth of the Patapsco River in the Baltimore Harbor watershed to meet the 0.56 acres of required tidal mitigation. Derelict crab pot removal has been selected as the tidal mitigation activity, and MDTA is currently coordinating with ORP on derelict crab pot removal effort. Appendix B includes a vicinity map of the proposed target area for pot removal.

Oyster reef expansion and seeding was considered as mitigation for

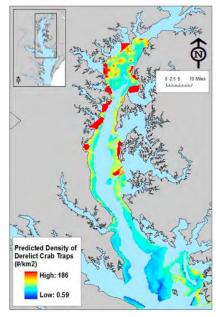


Figure 1. Predicted Density of Derelict Crab Pots (ORP 2024)

### b. Oyster Reef Expansion

being considered as compensatory mitigation.

the Project. Agency feedback indicated that a minimum of 3 acres of oyster reef expansion would be required to establish a viable reef with potential for long-term success. A 3-acre reef would provide 1.5 acres of mitigation credit. The Chesapeake Bay Foundation (CBF) and Oyster Recovery Partnership (ORP) were consulted to identify potential sites near the Project. The Fort Carroll Oyster Sanctuary, which is in close proximity to the Project, is located in the Baltimore Harbor MDE 8-digit watershed (02130903). CBF currently manages two 1-acre sanctuary oyster reefs at Fort Carroll. The Oyster Garden (OG) reef is located directly adjacent to Fort Carroll and the Maryland Environmental Service (MES) reef is located northeast of Fort Carroll. Due to the significant decrease in impacts, oyster reef expansion is no longer

### c. Tidal Habitat Creation and/or Re-Establishment

Several full delivery tidal habitat creation and/or re-establishment projects along Middle Branch of the Patapsco River and Bear Creek were presented to the agencies. A total of six project concepts included in the Middle Branch Resiliency Initiative (MBRI) and Bear Creek Resiliency Initiative (BCRI) were reviewed. Both MBRI and BCRI aim to restore shorelines and aquatic habitats along their respective watercourses within South Baltimore (MBRI) and Baltimore County (BCRI).

After reviewing each potential project with the agencies, it was determined that Middle Branch-1 (Site 6), Middle Branch-3 (MBP West), Bear Creek-1, and Bear Creek-3 were to be removed from consideration due to the inclusion of living shoreline in the project concepts. Several agencies did not support living shoreline projects because these projects would require fill to be placed in shallow tidal waters. Bear Creek-3 was removed from consideration as the site overlaps an existing utility ROW, which is a conflicting land use.

Middle Branch-2 (PDP West) is a tidal habitat creation and re-establishment project that was included in the Draft CMP but will not be carried forward into the Final CMP due to the significant reduction in the proposed impacts.

Table 3 summarizes the six project concepts and potential mitigation credits of each site. Appendix B includes vicinity maps of each site in relation to the Project.

Table 3. Summary of MBRI and BCRI Project Concepts

Site Name	MDE 8-digit Watershed	Mitigation Activity	Available Mitigation (acres)	Functional Uplift
Middle Branch-1	Baltimore Harbor	Living Shoreline Re-Establishment	8.9	Improves resiliency to climate change. Provides habitat for fish and wildlife Improves water quality. Stabilizes shoreline and reduces erosion
(Site 6)	(02130903)	Tidal Wetland Restoration	0.7	Collects and stores flood waters Filters pollutant runoff Weakens storm surges Enhances biological diversity
Middle Branch-2 (PDP West)	Inch-2 Baltimore Harbor Creation and Re- 2.4:		2.41	Improves wildlife and aquatic habitat Collects and stores flood waters Filters pollutant runoff Weakens storm surges Enhances biological diversity
Middle Branch-3	ich-3   Baltimore Harbor   (02130903)	Living Shoreline Re-Establishment	0.7	Improves resiliency to climate change Provides habitat for fish and wildlife Improves water quality Stabilizes shoreline and reduces erosion
(MBP West)		Tidal Wetland Restoration	1.6	Collects and stores flood waters Filters pollutant runoff Weakens storm surges Enhances biological diversity



Table 3. Summary of MBRI and BCRI Project Concepts, continued

Site Name	MDE 8-digit Watershed	Mitigation Activity	Available Mitigation (acres)	Functional Uplift
Bear Creek-1	Baltimore Harbor	Living Shoreline Re-Establishment	2.0	Improves resiliency to climate change Provides habitat for fish and wildlife Improves water quality Stabilizes shoreline and reduces erosion
Bear Creek-1	(02130903)	Tidal Wetland Restoration	1.8	Collects and stores flood waters Filters pollutant runoff Weakens storm surges Enhances biological diversity
Bear Creek-2	eek-2 Baltimore Harbor Living Shoreline (02130903) Re-Establishment		3.2	Improves resiliency to climate change Provides habitat for fish and wildlife Improves water quality
Bear Creek-3	Bear Creek-3 Baltimore Harbor Tidal Wetland (02130903) Restoration 1.5		Improves wildlife and aquatic habitat Collects and stores flood waters Filters pollutant runoff Weakens storm surges Enhances biological diversity	



### d. Dam Removal

During coordination with regulatory agencies, removal of the Van Bibber Weir was suggested for consideration as part of the tidal mitigation package. Van Bibber Weir, a concrete dam constructed in 1942 to provide water to Aberdeen Proving Grounds (APG), is 410 feet long and 14 feet tall and has become obsolete now that Harford County provides water to APG. The weir is approximately 19.2 miles northeast of the Project immediately northwest of MD 40 and Emmorton Road in Harford County and lies within the Lower Winters Run MDE 8-digit watershed (02130702). Winters Run, a Use I waterway, terminates at Van Bibber Weir, at which point it becomes Otter Point Creek, another Use I waterway. The weir is also within the Maryland Tier II Otter Point Catchment.

MDTA coordinated with USACE to use the Beta Fish Passage Tool to calculate a credit estimate for removing Van Bibber Weir. The tool resulted in approximately 1,500 functional feet from removal of the weir. Because the Project is impacting tidal open water, the functional foot credit estimate was converted to square feet of credit. USACE recommended applying a mitigation ratio of 1.5 functional foot for every 15 square feet of impact which becomes one functional foot for every 6.87 square feet in the Coastal Plain. Using the proposed square foot conversion, the removal of Van Bibber Weir could compensate for approximately 0.25 acres of the Project tidal open water impacts assuming optimal stream quality. If it is assumed the impacted Patapsco River has a quality score of 50 percent, 0.50 acres of compensation could be achieved. The estimate did not include possible credits for sediment removal behind the impoundment or possible stream restoration which would increase the mitigation credits. These factors were not included as it would require field assessments of the stream and impoundment to accurately calculate available credits.

In addition to the low mitigation credit achieved by the project and its distance from the project site (see the vicinity map in **Appendix B**), the existing Environmental Assessment that was completed for the proposed weir removal would need to be re-evaluated which would require significant time and effort that is not feasible given the timing and schedule of the Project. Impacts associated with access to the project site as well as secondary impacts associated with changes in hydrology to nontidal wetlands upstream of the structure were not considered in the Environmental Assessment, nor was constructability. Given the complexity of the re-evaluation that would be necessary, degree of fieldwork and analysis that would have to be performed, unknowns associated with constructability, and the minimal amount of credit that would be generated, the removal of Van Bibber Wier was removed from consideration as a potential mitigation activity.

### e. Artificial Reef Enhancement

The Maryland Artificial Reef Initiative (MARI) includes private, state, and federal partners, and acts as a funding mechanism (using private and corporate donations) for reef development in Maryland. The monitoring and management of artificial reefs in Maryland bay and ocean waters is conducted by MDNR through the Maryland Department of Natural Resources Artificial Reef Committee and Fishing and Boating Services. Coordination with MDNR's Artificial Reef Coordinator identified two potential sites, Love Point and Hackett Point reefs. The Love Point reef is located just north of Kent Island, approximately 16 miles from the Project, in the Lower Chester River MDE 8-digit watershed (02130505). The Hackett Point reef is located just south of the Bay Bridge, approximately 20 miles from the Project, in the Lower Chesapeake Bay MDE 8-digit watershed (02139998). **Appendix B** includes a vicinity map of the reef locations.

While there was some support for the enhancement of artificial reefs as a mitigation activity, not all agencies were supportive because the permitted reefs will eventually be built out overtime whether the Project adds material or not. Some agencies indicated that the Project's contribution to build-out of these reefs should not be considered mitigation and other alternatives should be considered instead. Therefore, enhancement of artificial reefs were removed from further consideration.

### f. Capping Contaminated Sediments

Capping contaminated sediments was recommended as a potential mitigation activity during interagency meetings. MDTA conducted some desktop research to determine if this was a feasible mitigation activity for the Project. It was determined that capping contaminated sediments would require lengthy field investigations and property negotiations and permitting that does not align with the Project schedule and timing of rebuild permit needs. Therefore, based on the project schedule, it was decided that capping contaminated sediments would be removed from consideration.

#### 3. Site Protection Instrument

The non-tidal wetland mitigation is being fulfilled at an approved mitigation bank that is already encumbered by a perpetual easement. Site-specific protective measures cannot be established for individual locations in which derelict crab pot have been removed; however, by default they will be protected as they are all within waters under the jurisdiction of state and federal regulatory agencies.

**Site Protection Instrument Site Type** Non-tidal wetland and stream mitigation bank Perpetual Easement Derelict Crab Pot Removal State and Federal Regulations

**Table 4. Site Protection Instrument Summary** 

### 4. Baseline Information

The proposed derelict crab pot removal area and wetland and stream mitigation banks were reviewed using desktop resources. The following describes existing conditions.

### a. Project Impacts

A natural resources inventory, which includes a wetland and waterways delineation, was completed for the Project in Spring 2024. The impacted tidal open water is the Patapsco River which is classified as estuarine subtidal. The impacted non-tidal wetlands are referred to as 1WETA, 1WETB, 1WETC, 1WETD, 1WETE, 1WETF, 1WETG, and 2WETD in the NRI report. 1WETA, 1WETB, 1WETC, 1WETD, 1WETF, and 1WETG are depression / toe-of-slope wetlands located along the I-695 embankments and are classified as palustrine emergent wetlands with either a seasonally flooded (PEM1C) or temporarily flooded/saturated (PEM1A/B) water regime. 1WETE is an impoundment classified as a palustrine emergent wetland with a semi-permanently flooded (PEM1F) water regime. 2WETD is a toe-of-slope Phragmites australis (PEM5) wetland. Mapping, data forms, and photographs of these resources are included in Appendix D. The impacted non-tidal streams are referred to as 1WA, classified as a perennial

stream with cobble and gravel substrate (R3UB1) and 1WB, classified as an intermittent stream with cobble and gravel substrate (R4SB3).

### b. Peige Mitigation Bank

The Peige Mitigation Bank is located at 701 Luthardt Road, in Middle River, Maryland. The bank was approved and established on December 10, 2020, and includes wetland bank credits. The primary service area associated with this bank is the Gunpowder-Patapsco HUC-8 watershed and the secondary service area includes the Coastal Plain portion of the Lower Susquehanna HUC-8 watershed. Coordination with Ecotone—the bank sponsor—is ongoing, see Appendix E: Mitigation Bank Credit Availability for documentation of the available credits.

### c. Pheasant Run Mitigation Bank

The Pheasant Run Mitigation Bank is located near 13869 Baldwin Mill Road, in Jarrettsville, Maryland. The bank was approved and established on September 30, 2024, and includes wetland and stream bank credits. The primary service area associated with this bank is the Gunpowder-Patapsco HUC-8 watershed and the secondary service area includes the Eastern Mountains and Piedmont portions of the Lower Susquehanna HUC-8 and Patuxent HUC-8 (02060006) watersheds. Coordination with Ecotone—the bank sponsor—is ongoing, see Appendix E: Mitigation Bank Credit Availability for documentation of the available credits.

#### d. Derelict Crab Pot Removal

Derelict crab pots are the predominant derelict fishing gear found in the Chesapeake Bay because of the large number deployed and the long fishing season (April to November). According to a 2016 study by the Virginia Institute of Marine Science (VIMS), derelict crab pots passively trap approximately 3.3 million crabs a year in the Chesapeake Bay. In addition to blue crabs, over forty species have been documented in abandoned crab pots in the Chesapeake Bay, including the diamondback terrapin, a state listed species of special concern (Scheld, et.al., 2016). Derelict pots are typically lost during storms or accidentally cut loose by boat propellers. Scheld, et.al. found in a 2016 study that an estimated 12-20% of deployed crab pots are lost each year. The pots stay on the bay bottom and continue to trap crabs, finfish, turtles, and other aquatic species. A derelict crab pot can persist for months or even several years, depending on the construction. For instance, in the Chesapeake Bay, crab pots were estimated to persist from 1-7 years (Scheld, et.al., 2016).

Derelict pots are concerning due to their impact on sensitive habitats, by trapping and killing non-target species, as well as their economic impact caused from the loss of recreational and commercial harvest of valuable species. Lastly, they pose a safety threat to human navigation. The proposed crab pot removal effort would provide functional uplift by reducing bycatch and mortality rates of blue crabs and finfish. Additionally, the removal effort would aid in recovery and conservation of a variety of benthic habitats, SAV, marshes, turtle nesting beaches, and oyster reefs.

### 5. Determination of Credits

The Project will impact 3.12 acres of non-tidal PEM, 0.45 acres of PUB wetlands, 54 functional feet of perennial/intermittent stream, and 0.56 acres of tidal open waters (**Table 1**). USACE and MDE typically require mitigation for non-tidal PEM wetlands at a 1:1 ratio. USACE and MDE Nontidal is not regulating

the PUB waters at this location. Based on this mitigation ratio, a total of 3.12 acres of non-tidal wetland mitigation credit is required for the Project. USACE, MDE, and NOAA have agreed during interagency meetings that mitigation for tidal open waters with derelict crab pot removal will be at a ratio of 1,400 pots per acre of impact. A summary of non-tidal mitigation credit needs by mitigation activity is included in **Table 5**. A summary of tidal mitigation credit needs by mitigation activity is included in **Table 6**.

Based on the final output of the Maryland Stream Mitigation Framework (MSMF) "Stream Impact Calculator" (Calculator), the project will result in 299 linear feet and 54 functional feet of intermittent/perennial stream loss (impact) (Appendix D). When completing the Calculator, streams within the limits of disturbance (LOD) were considered to be a total functional loss except for those already in culverts (which are considered to have already lost function, therefore no net loss and no mitigation required). Stream mitigation credits were determined using the Calculator. All mitigation will be fulfilled through the purchase of stream credits from Pheasant Run Mitigation Bank. Table 7 summarizes the detailed breakdown of the specific stream impacts along the project corridor, which is included in Appendix D. Details regarding the locations and nature of the stream impact locations can be found on the impact plates. USACE review of stream quality assessments and MSMF calculations may require adjustment of the amount of stream mitigation required.

**Table 5. Non-Tidal Wetland Mitigation Summary Table** 

Proposed Activity	Proposed Impacts	Mitigation Ratio	Required Mitigation Credits
Purchase of non-tidal PFO credits	3.12 AC/135,789 SF	1:1	3.12 AC/135,789 SF

**Table 6. Tidal Waters Mitigation Summary Table** 

Proposed Activity	Proposed Impacts	Mitigation Ratio	Required Mitigation Credits
Derelict Crab Pot Removal	0.56 AC	1,400 pots/acre¹	784 pots

<sup>&</sup>lt;sup>1</sup>1,400 pots per acre reflects a 2:1 mitigation requirement.

Stream Quality Score (%) Stream **Reach Length Reach Name** Impact Type Losses/Gains **Existing Proposed** (LF) (FF) 1WA Fill 26 112 -15 Fill 1WB 38 0 187 -39 **Total Permanent Impact** 299 LF -54 FF

Table 7. Non-Tidal Stream Mitigation Stream Impact Calculator Impact Summary

### 6. Mitigation Work Plan

MDTA has considered and implemented avoidance and minimization measures throughout the preliminary design phase. Despite avoidance and minimization to the extent practicable, this project will incur unavoidable impacts that will require compensatory mitigation and restoration. The required non-tidal wetland and stream and tidal open water mitigation will be achieved offsite through potential sites outlined below.

Based on agency feedback and support, and restoration and uplift potential, the sites listed in **Table 8** below are the preferred mitigation package for each type of mitigation required for the Project.

		Required Compensatory Mitigation		
Туре	Site ID	MDE	USACE	
Non-tidal wetlands (PEM)	Peige and/or Pheasant Run Mitigation Bank	3.12 AC	3.12 AC	
Non-tidal streams (Intermittent & Perennial)	Pheasant Run Mitigation Bank	54 FF	54 FF	
Tidal open waters	Derelict Crab Pot Removal	784 pots	784 pots	

**Table 8. Preferred Mitigation Package** 

### a. Preferred Mitigation Package Sites

Peige and Pheasant Run Mitigation Banks

MDTA is currently coordinating with Ecotone, the bank sponsor, to finalize the purchase of 3.12 acres (135,789 SF) of non-tidal wetland mitigation credits and 54 functional feet of stream credit from the Peige and/or Pheasant Run Mitigation Banks. Documentation of the purchase will be provided once finalized.

#### Derelict Crab Pot Removal

MDTA is currently coordinating with ORP to provide training, onsite oversight, and organize efforts to locate and remove derelict crab pots from the tidal Patapsco River, south of the Project, and will continue into the Middle Chesapeake Bay (02139997) MDE 8-digit watershed as needed, to meet the mitigation requirement of 784 pots. The general areas to be initially targeted for derelict crab pot removal are shown in **Appendix B**.

A survey of the river and bay bottom to map submerged crab pots for targeted removal will be completed prior to starting the work. Based on ORP's past efforts, MDTA estimates hiring approximately 14 boats

(generally two local watermen per boat) during the 2026 winter off season (February – March) to remove the derelict pots and transport them to a recycling facility. It is anticipated that removing the required 784 pots can be achieved in five or more days during a single season. However, if an additional season is needed to meet the quota, survey and removal efforts will be completed in February and March 2027. ORP staff will be on board with the watermen and will document the condition of each trap and any trapped organisms. Data to be collected for trapped organisms includes species, dead or alive, and number. Photo vouchers will be taken of each species. Watermen would be allowed to strip the recovered gear of any usable parts, and the remaining parts will be taken to a recycling facility for disposal. A report following the work in 2026 (and subsequent years if needed to meet the required 784 pots) documenting the level of effort (number of boats and hours on the water), number of derelict gear retrieved (including types of gear), and the number of trapped organisms (including species, number dead or alive, and photo vouchers) recovered and released will be submitted to USACE via NAB-Regulatory@usace.army.mil and MDE.

### 7. Maintenance Plan

It is assumed maintenance is not required for derelict crab pot removal due to the nature of the mitigation activity. Maintenance of approved mitigation banks is the responsibility of the mitigation bank owner as outlined in the approved Mitigation Banking Instrument and not the purchaser of mitigation credits.

### 8. Performance Standards

The Project's ecologically based performance standards are tied to the site's objectives and its values. It is assumed performance standards for derelict crab pot removal are based on the number of derelict pots removed. Additional coordination with MDE and USACE will be required to determine other performance standards for derelict crab pot mitigation. Demonstrating performance standards are being met for approved mitigation banks is the responsibility of the mitigation bank owner as outlined in the approved Mitigation Banking Instrument and not the purchaser of mitigation credits.

### 9. Monitoring Requirements

It is assumed that monitoring is not required for derelict crab pot removal. Monitoring of approved mitigation banks is the responsibility of the mitigation bank owner as outlined in the approved Mitigation Banking Instrument and not the purchaser of mitigation credits.

### 10. Long-Term Management Plan

It is assumed a long-term management plan is not required for derelict crab pot removal. A long-term management plan is outlined in the approved Mitigation Banking Instrument and fulfilling management obligations is the responsibility of the mitigation bank owner and not the purchaser of mitigation credits.

### 11. Adaptive Management Plan

If the required 784 derelict crab pots cannot be located within the Baltimore Harbor MDE 8-digit watershed, the search will be expanded to the adjacent Middle Chesapeake Bay MDE 8-digit watershed. An adaptive management plan is outlined in the approved Mitigation Banking Instrument and fulfilling adaptive management obligations is the responsibility of the mitigation bank owner and not the purchaser of mitigation credits.

### 12. Financial Assurances

The Project was approved by the Baltimore Regional Transportation Planning Board for inclusion in the FY 2024-2027 Transportation Improvement Program on June 25, 2024. The Project will also be reflected by amendment in the Statewide Transportation Improvement Program (Control #22-141). The Project, including any associated mitigation requirements due to unavoidable impacts due to Project related activities, is eligible for federal reimbursement.

# V. Environmental Stewardship

In addition to the required mitigation for the Project, MDTA is currently identifying opportunities for environmental stewardship including oyster reef expansion and Fort Carroll Oyster Sanctuary and additional derelict crab pot removal.

### 1. Derelict Crab Pot Removal

Through coordination with ORP, MDTA determined that the mouth of the Chester River or the Magothy River could be targeted to remove 6,216 additional derelict crab pots as environmental stewardship. Based on ORP's estimations, the mouths of these rivers have a high density of derelict crab pots that have not been removed to date (see **Figure 1**). The stewardship effort will be split between the Magothy and the Chester rivers. The approach to locating and removing the pots proposed in **Section 6.a** will be used for this stewardship activity.

### 2. Oyster Reef Expansion

Fort Carroll is located approximately 0.4 miles southeast of the Project area and falls within the Baltimore Harbor MDE 8-digit watershed. Near Fort Carroll are two existing sanctuary oyster reefs — each approximately one (1) acre in size, managed by CBF. Since 1999, nine-month-old oysters from CBF's Oyster Gardening program have been planted annually at the reef directly adjacent to Fort Carroll (OG reef). CBF's Baltimore Inner Harbor Education vessel visits this reef and samples it regularly with a small oyster dredge during their spring and fall field seasons with local students and teachers. In addition to CBF's reef, MES constructed a rectangular reef (MES reef) northeast of Fort Carroll in 2017 as compensatory mitigation for Maryland Port Administration activities. Following bathymetric surveys, MES constructed the reef on firm to very firm bottom with stone built to a height of six (6) inches off the bottom. CBF seeded the substrate with over six (6) million spat-on-shell oysters in 2017 and 2019. Multiple plantings were included to ensure multiple year classes of oysters were present on the reef. **Table 9** shows when and where CBF has planted oysters using the methods described above at the Fort Carroll reefs (CBF 2024).

	,	,
Year	OG Reef	MES Reef
2014	41,753	
2015	158,883	(constructed in 2017)
2016	111,219	
2017	280,734	3,104,836
2018	285,734	0
2019	363,504	3,362,379
2020	155,175	0

Table 9: CBF Oyster Plantings at Fort Carroll Reefs (CBF 2024)

2021	56,863	0
2022	58,100	36,211
2023	336,150	356,600
2024	0	0
Total	1,848,115	6,860,026

MDTA is currently coordinating with CBF to determine where a new reef could be located within the Fort Carroll Oyster Sanctuary. CBF recommends deploying substrate south of the OG reef which is located immediately adjacent to the fort in order to avoid the risk of damaging the OG reef. Based on CBF's most recent assessment of bottom firmness, the most promising area within the sanctuary is significantly south of the OG reef and is what CBF would prefer to target for ground truthing. MDTA proposes to add hard bottom and seed the newly created reef within the Fort Carroll Oyster Sanctuary using concrete from the demolished FSK bridge piers or other suitable material. Substrate size will comply with DNR's oyster sanctuary substrate guidelines and recommendation of baseball-sized materials or a mix with smaller sized materials. Through discussion with the agencies at interagency meetings, it is recommended that a minimum of three acres of newly added hard bottom be seeded to ensure the reef is successful. The new reef will be seeded with spat-on-shell over multiple years to ensure multiple year classes of oyster are present. Coordination with MDNR's Shellfish Division and NOAA Fisheries will occur if oyster reef expansion is pursued as environmental stewardship including determining the size and location of substrate placement and seeding rates.

### VI. Conclusions

The goals and objectives of the proposed mitigation strategy are to compensate for unavoidable impacts associated with the Project through off-site, in-kind and out-of-kind mitigation for unavoidable impacts to regulated resources associated with the Project. All impacts requiring compensatory mitigation will be completed in accordance with the guidelines of Section 404(b)1 of the Clean Water Act.

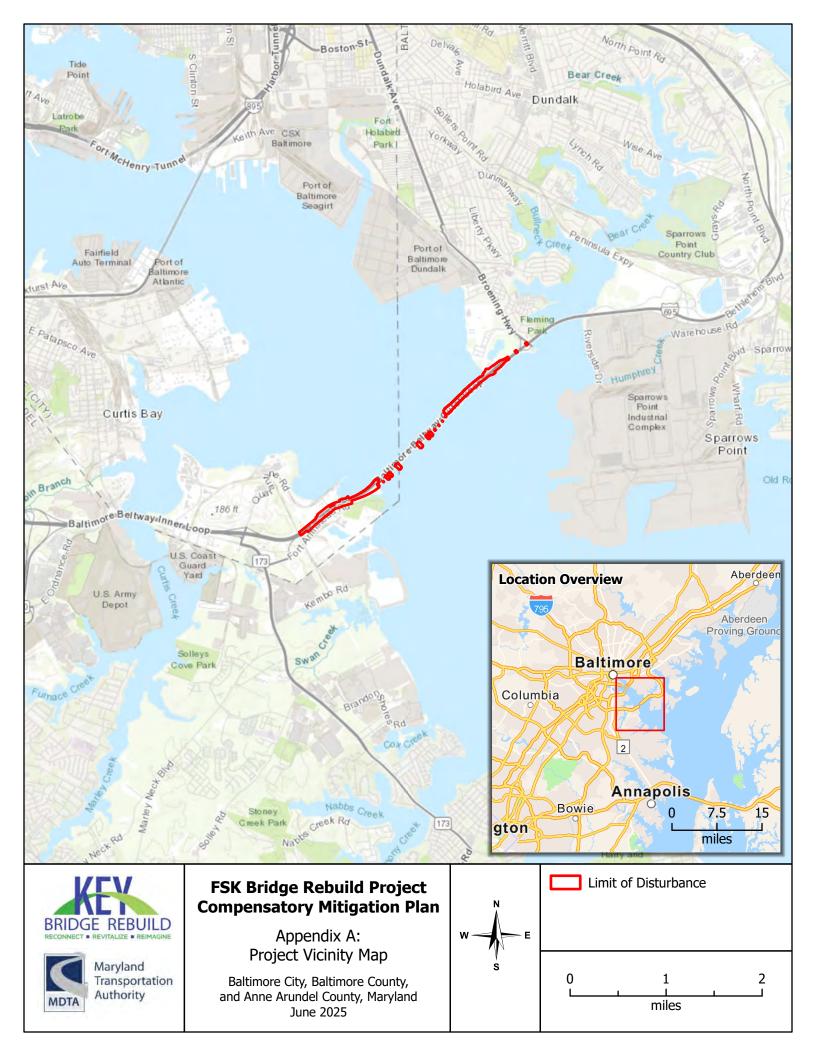
### VII. Literature Cited

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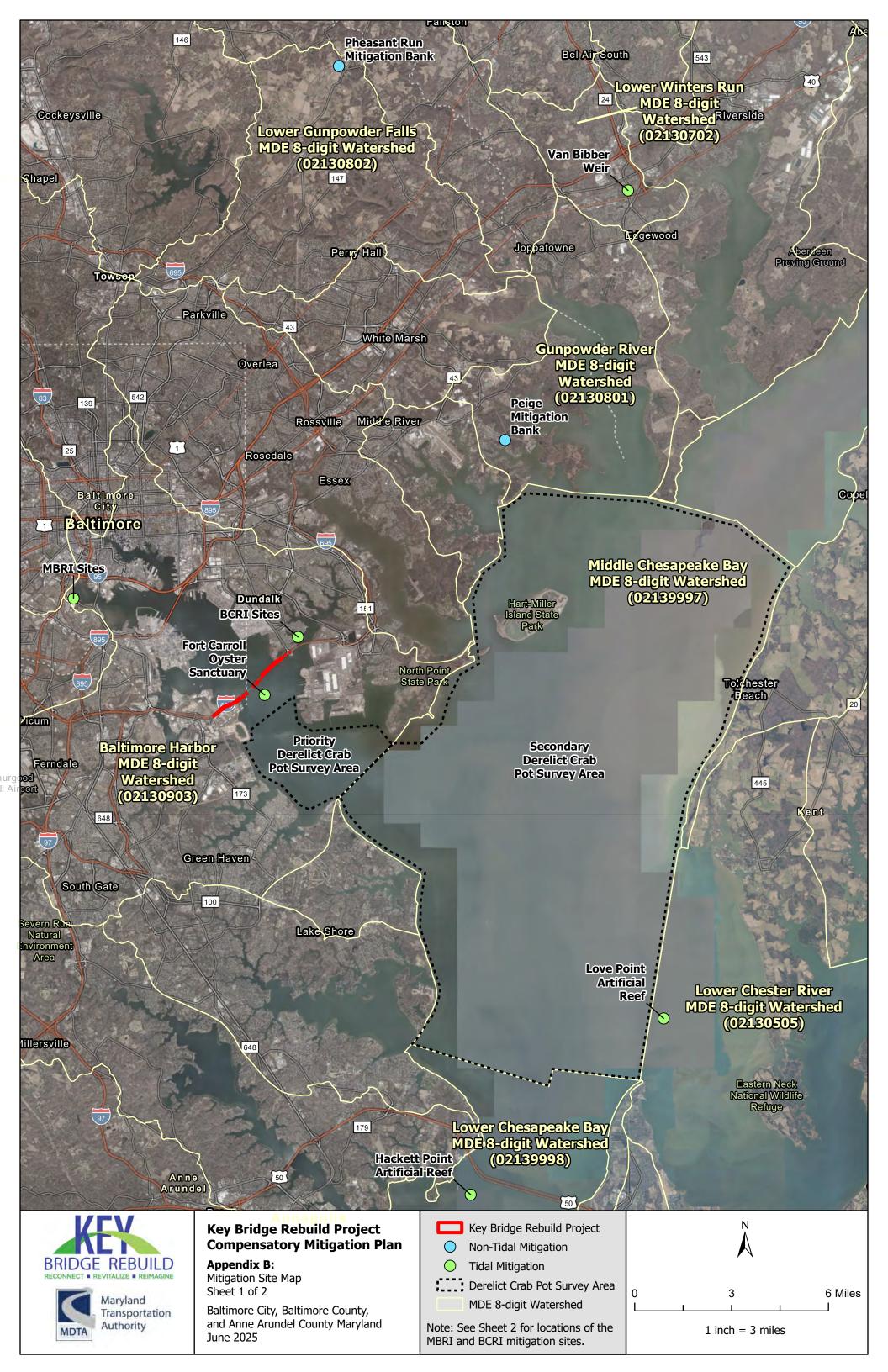
Oyster Recovery Partnership. Predicted Density of Crab Pots. (2024)

**APPENDIX A: PROJECT LOCATION MAP** 



endix B	Francis Scott Key	Bridge Rebuild	l Project Comp	ensatory Mitigation Plan

**APPENDIX B: MITIGATION SITES OVERVIEW MAP** 







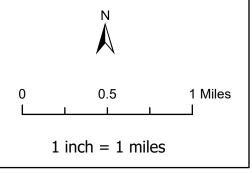


Appendix B:

Mitigation Site Map Sheet 2 of 2

Baltimore City, Baltimore County, and Anne Arundel County Maryland June 2025





ppendix C	Key Bridge Rebuild Project Compensatory Mitigation Plan
	APPENDIX C: NATURAL RESOURCES INVENTORY REPORT

# **NATURAL RESOURCES INVENTORY REPORT**

### FRANCIS SCOTT KEY BRIDGE REBUILD PROJECT

BALTIMORE CITY AND BALTIMORE COUNTY, MARYLAND



# **JUNE 2025**







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# 1.0 Introduction, Study Area, and Project Description

On March 26, 2024, the Maryland Transportation Authority (MDTA) Francis Scott Key Bridge (Key Bridge), which carries I-695 over the Patapsco River, was struck by a cargo ship leaving the Port of Baltimore, resulting in the collapse of the bridge. The collapse prompted the immediate closure of I-695 between MD 173 (exit 1) and MD 157/Peninsula Expressway (exit 43) and halted vehicle traffic across the Patapsco River as well as marine shipping to and from the Port of Baltimore. Following the incident, Executive Order 01.01.2024.09 was released by the State of Maryland, declaring a State of Emergency as a result of the Key Bridge collapse. Immediate recovery and debris removal actions were conducted.

MDTA and Maryland State Highway Administration (SHA) are proposing to replace the collapsed Francis Scott Key Bridge in the same location as the original structure, which will help alleviate the high traffic demands and restore the connectivity of the transportation network between Curtis Bay and Dundalk. As a result, Rummel, Klepper, & Kahl (RK&K) and Coastal Resources, Inc. (CRI), under contract by the MDTA, has completed a natural resources inventory, in support of the Francis Scott Key Bridge Rebuild Project (FSK Rebuild) located in Baltimore City and Baltimore County, Maryland. RK&K and CRI completed a water of the U.S. (WOTUS), including wetlands, delineation, forest stand delineation, and tree survey within the project study area (see Appendix A). The study area is approximately 117 acres within the Patapsco River MDE 8-digit watershed (02130903). Land use classifications within and adjacent to the study area include forest and industrial. The project area is in the Northern Coastal Plain physiographic province. The project limits extend along I-695 from Quarantine Road in Curtis Bay to Broening Highway in Dundalk and are entirely within MDTA's existing right-of-way (ROW). CRI completed the natural resources inventory in the segment between Quarantine Road and the Patapsco River. RK&K completed the natural resources inventory between the Patapsco River and Broening Highway. A wetland delineation was conducted for a separate MDTA project in February 2024 and field verified as part of the FSK Rebuild project in May of 2024.

# 2.0 Methodology

Prior to the field investigation, the RK&K and CRI field teams reviewed existing potential forest and wetland data within the project area, including but not limited to the United States Fish & Wildlife Service (USFWS) National Wetland Inventory, the Maryland Department of Natural Resources (MDNR) Wetlands, the Natural Resource Conservation Service (NRCS) Soil Survey Data and National Hydrography Dataset (NHD) Streams.

During the field investigation, wetlands were assessed in accordance with the Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0 (USACE 2010). This methodology requires interpretation of a three-parameter approach representing hydrology, vegetation, and soils, which are known indicators of a wetland. Soils were sampled using three-inch diameter Dutch augers and Munsell Color charts were used to identify color (Munsell 1975). The wetland indicator status of the observed vegetation was identified using the National Wetland Plant List (NWPL) (USACE 2020). Wetland data were collected on Wetland Determination Data Forms (USACE 2010, 2012). A Wetland Functions and Value Evaluation form was completed for all delineated wetlands greater than 0.5 acres (USACE 1999). Matching upland test plots were also established adjacent to the wetland boundary in conjunction with wetland plots. Delineated WOTUS were flagged and surveyed using a Global Navigation Satellite System (GNSS) unit. Nontidal WOTUS, other than wetlands, were set at the ordinary

high-water mark (OHW) which was determined in the field using physical characteristics established by the fluctuations of water. Tidal WOTUS were defined by mean high water (MHW) elevation from the nearest tidal gauge and by in-situ water observations. Stream characteristics were recorded for each identified watercourse on a WOTUS datasheet. Identified WOTUS, including wetlands, were classified according to a *Classification of Wetland and Deep-Water Habitats in the United States* (USFWS 1979). Each wetland and watercourse were photographed, and a photo log was compiled.

Forest stands, hedgerows, and woody vegetation clusters were delineated and characterized with the study area in accordance with the State Forest Conservation Technical Manual and MDNR Critical Area requirements. A walk-through forest stand analysis was conducted to obtain a general overview of the species present, successional stage, and stand condition. Forest stand and hedgerow boundaries were delineated on project mapping and all forest stand characteristics were recorded on stand datasheets. Stand-alone trees (1.5" DBH or greater) and specimen trees (> 30' DBH) were measured using a diameter at breast height (DBH) tape at 4.5 feet above the ground. The species, size, and condition of stand-alone and specimen trees were recorded, and their locations were surveyed using a GNSS unit. Within the Chesapeake Bay Critical Area (CBCA), woody vegetation clusters were mapped and characterized. Additionally, stand-alone trees and shrubs of any size were identified and GPS-located.

### 3.0 Results

### 3.1 Waters of the U.S., including Wetlands

During the field investigations, ten non-tidal wetlands, four tidal wetlands, and three watercourses were identified within the study area. Wetland classifications included ten palustrine emergent wetlands (PEM), two estuarine intertidal emergent wetlands (E2EM), and two estuarine intertidal scrub shrub wetlands (E2SS). Data were collected at a total of ten representative wetland test plots that characterize the identified wetland types and Cowardin classifications. Test plots 1WETA, 1WETB, 1WETC, 1WETD, 1WETE, 1WETF, 1WETG, 1WETH, 1WETI and 2WETD characterize the PEM portion of these systems. Test plots 1WETJ and 2WETB characterize the E2EM portion of these systems. Test plot 2WETA and 2WETC characterize the E2SS portions of these systems. Delineated watercourses include one perennial, two intermittent systems, as well as the Patapsco River.

The locations of these resources and test plot locations are shown on the detailed maps provided in **Appendix B**. Details regarding wetland cover type and delineated size can be found in the WOTUS Summary Table located in **Appendix C**. Detailed wetland characteristics including cover type, indicators of hydrology, dominant vegetation, and soils are included on the datasheets provided in **Appendix D**. Characteristics of each watercourse can also be found in **Appendix C** and **Appendix D**. Photographs of all delineated resources are included in **Appendix E**.

### 3.2 Forest Stand Characterization

A total of thirteen forest stands, 15 hedgerows, and 24 woody vegetation clusters were identified within the study area. The locations of the forest stands, hedgerows, and woody vegetation clusters are displayed on the Natural Resources Inventory Map in **Appendix B**. The identified forest stands are described below, and a hedgerow summary table is included in **Appendix F**.

### Stand 1FS1 (NRI Map Sheets 2 and 3)

Stand 1FS1 is a disturbed early successional black locust forest. Canopy closure is approximately 30 percent. The canopy is dominated by Callery pear (*Pyrus calleryana*), Siberian elm (*Ulmus pumila*), and black locust (*Robinia pseudoacacia*). Dominant size class is 2 to 6" DBH with a few 6 to11" DBH trees scattered throughout this layer and ash-leaf maple (*Acer negundo*) is present at the bottom of the slope. Dominant species in the understory include groundseltree (*Baccharis halimifolia*), amur honeysuckle (*Lonicera maackii*), and smooth sumac (*Rhus glabra*). Dominant species in the herbaceous layer include a broomsedge (*Andropogon* sp.), Japanese honeysuckle (*Lonicera japonica*), common reed (*Phragmites australis*), and wand panic grass (*Panicum virgatum*). Overall, the forest stand is in poor condition with high invasive species cover and moderate vine cover.

### Stand 1FS2 (NRI Map Sheets 1 and 2)

Stand 1FS2 is a disturbed early successional black locust forest. Canopy closure is approximately 40 percent with dominant size class between 6 and 20" DBH. The canopy is dominated by black locust, white mulberry (*Morus alba*), tree-of-heaven (*Ailanthus altissima*), and Siberian elm. Dominant species in the understory include groundseltree, amur honeysuckle, tree-of-heaven (*Ailanthus altissima*), eastern poison ivy (*Toxicodendron radicans*), black locust, Asian bittersweet (*Celastrus orbiculatus*), and Japanese honeysuckle. Dominant species in the herbaceous layer include Japanese honeysuckle, English ivy (*Hedera helix*), grape species (*Vitis* sp.) and great mullein (*Verbascum thapsus*). The understory and herbaceous layers are sparse in some areas with little herbaceous growth. Overall, the forest stand is in poor condition with high invasive species cover, moderate downed woody debris and high vine cover.

### Stand 1FS3 (NRI Map Sheets 2 and 3)

Stand 1FS3 is a disturbed early successional black locust forest. Canopy closure is approximately 40 percent with a dominant size class of 2-6" DBH. The canopy is dominated by Callery pear and black locust. There is also one 18" DBH pin oak (*Quercus palustris*) within the stand. Dominant species in the understory include amur honeysuckle and rambler rose (*Rosa multiflora*). Smooth sumac is also present on the edge of the forest stand. Dominant species in the herbaceous layer include Japanese honeysuckle and common reed. Overall, the forest stand is in poor condition with high invasive species cover, low downed woody debris, and moderate vine cover.

### Stand 1FS4 (NRI Map Sheets 3 and 4)

Stand 1FS4 is an early successional black locust and tree-of-heaven forest. Canopy closure is approximately 75 percent with a dominant size class of 6-11" DBH. The canopy is dominated by black locust, tree-of-heaven, white mulberry, and sweetgum (*Liquidambar styraciflua*) with climbing vines present in this layer. Dominant species in the understory include amur honeysuckle, blackberry species (*Rubus* sp.), Japanese honeysuckle, eastern poison ivy, Asian bittersweet, and English ivy. Herbaceous species are lacking due to vines being dominant as ground cover. Overall, the forest stand is in fair condition with high invasive species cover, moderate downed woody debris, and high vine cover.

### Stand 1FS5 (NRI Map Sheet 2)

Stand 1FS5 is an early successional sweetgum and common persimmon forest. Canopy closure is approximately 25 percent with a dominant size class of 2-6" DBH. The canopy is dominated by sweetgum,

common persimmon (*Diospyros virginiana*), black locust, and Callery pear with inclusion of white mulberry. Dominant species in the understory include groundseltree, amur honeysuckle, Callery pear, white mulberry, Asian bittersweet, eastern poison ivy, and common persimmon. Autumn olive (*Elaeagnus umbellata*), grape species, blackberry species, and Virginia creeper (*Parthenocissus quinquefolia*) are also common in this layer. Dominant species in the herbaceous layer include Japanese honeysuckle, Callery pear, Asian bittersweet, and eastern poison ivy. Common reed and Virginia creeper are also present throughout this layer. Overall, the forest stand is in poor condition with high invasive species cover, moderate downed woody debris, and heavy vine coverage.

### Stand 1FS6 (NRI Map Sheet 2)

Stand 1FS6 is an early successional black locust and sweetgum forest. Canopy closure is approximately 25 percent with dominant size class of 6-11" DBH. The canopy is dominated by sweetgum and black locust. Common persimmon, Callery pear, and tree-of-heaven are also common in this layer. Dominant species in the understory include Callery pear, black locust, amur honeysuckle, groundseltree, grape species, Asian bittersweet, and amur peppervine (*Ampelopsis brevipedunculata*). Dominant species in the herbaceous layer include Asian bittersweet, Japanese honeysuckle, an unknown blackberry, Virginia creeper, and amur peppervine. Common reed, rambler rose, and common wormwood (*Artemisia vulgaris*) are also scattered throughout. Vines are dominant as ground cover in this layer. Invasive species cover is high throughout this stand. Overall, this forest stand is in poor condition as invasive species are dominant throughout and trees are stressed and damaged from heavy vine coverage.

### Stand 1FS7 (NRI Map Sheets 1 and 2)

Stand 1FS7 is a mid-successional black locust and sweetgum forest. Canopy closure is approximately 60 percent with a dominant size class of 6-11" DBH. The canopy is dominated by black locust, sweetgum, and willow oak (*Quercus phellos*). Callery pear and common hackberry (*Celtis occidentalis*) are also common in this layer. A few larger trees are scattered throughout the stand. Dominant species in the understory include Callery pear, black locust, Japanese honeysuckle, rambler rose, grape species, Asian bittersweet, and Virginia creeper. Dominant species in the herbaceous layer include common reed, rambler rose, grape species, Japanese honeysuckle, Asian bittersweet, and amur peppervine. Common wormwood is present along the stand edges and vines are dominant as ground cover in this layer. Invasive species cover is high throughout this stand. Overall, this stand is in poor condition as invasive species are dominant throughout and trees are stressed and damaged from heavy vine coverage.

### Stand 1FS8 (NRI Map Sheet 1)

Stand 1FS8 is a mid-successional sweet gum and white pine forest. Canopy closure is approximately 50 percent with a dominant size class of 6-11" DBH. The canopy is dominated by black locust, sweetgum, eastern white pine (*Pinus strobus*), Callery pear, and common persimmon. White mulberry and a few larger eastern white pine are present in this layer. Dominant species in the understory include amur peppervine, groundseltree, amur honeysuckle, Japanese honeysuckle, grape species, Asian bittersweet, eastern poison ivy, blackberry species, and rambler rose. Autumn olive, staghorn sumac (*Rhus typhina*), and tree-of-heaven are also present in this stand. Dominant species in the herbaceous layer include common reed, eastern poison ivy, Japanese honeysuckle, Virginia creeper, grape species, and amur peppervine. Vines are dominant as ground cover in this layer. Overall, this stand is in poor condition with high invasive species cover and trees are stressed/damaged from heavy vine coverage.

### Stand 1FS9 (NRI Map Sheet 1)

Stand 1FS9 is a mid-successional black cherry and black locust forest. Canopy closure is approximately 75 percent with a dominant size class of 6-11" DBH. The canopy is dominated by black cherry (Prunus serotina), black locust, and Callery pear. Northern white oak (Quercus alba) and mockernut hickory (Carya tomentosa) are also common in this layer. Tree-of-heaven and princesstree (Paulownia tomentosa) are scattered along the forest stand edges. Dominant species in the understory include amur peppervine, Callery pear, black cherry, grape species, American holly (*Ilex opaca*), eastern poison ivy, rambler rose, Japanese honeysuckle, Asian bittersweet, Virginia creeper, and groundseltree. Dominant species in the herbaceous layer include Asian bittersweet, eastern poison ivy, Japanese honeysuckle, Virginia creeper, and rambler rose. Common reed is scattered along the stand edges. Vines are dominant as ground cover in this layer. Invasive species cover is high throughout this stand. The eastern portion of the stand has slightly younger but similar species and condition. Overall, this stand is in fair condition as invasive species are dominant throughout and trees have climbing vines, but moderate species diversity is present.

### Stand 1FS10 (NRI Map Sheet 1)

Stand 1FS10 is a mid-successional tuliptree and tree-of-heaven forest. Canopy closure is approximately 80 percent with a dominant size class of 12-20" DBH. The canopy is dominated by tuliptree (Liriodendron tulipifera), tree-of-heaven, sweetgum, and black cherry. princesstree (Paulownia tomentosa), common persimmon, white mulberry, and eastern red cedar (Juniperus virginiana) are also common in this layer. Dominant species in the understory include white mulberry, amur honeysuckle, Japanese honeysuckle, autumn olive, eastern poison ivy, Asian bittersweet, trumpet-creeper (Campsis radicans), rambler rose, an unknown blackberry, English ivy, and tree-of-heaven. Dominant species in the herbaceous layer include Asian bittersweet, eastern poison ivy, Japanese honeysuckle, garlic-mustard (Alliaria petiolata), and English ivy. Vines are dominant as ground cover in this layer. Invasive species cover is high throughout this stand. Overall, this stand is in poor condition as invasive species are dominant throughout and trees are stressed and damaged from heavy vine coverage.

### Stand 1FS11 (NRI Map Sheets 1 and 2)

Stand 1FS11 is a mid-successional black locust and Callery pear forest. Canopy closure is approximately 50 percent with a dominant size class of 2-6" DBH. The canopy is dominated by black locust, Callery pear, sweetgum, and common persimmon. Tree-of-heaven, princesstree, and eastern red cedar are also common, and willow oak is scattered throughout the stand. Dominant species in the understory include groundseltree, amur honeysuckle, Callery pear, grape species, sweetgum, amur peppervine, and eastern poison ivy. Autumn olive is also common in this layer. Dominant species in the herbaceous layer include Asian bittersweet, eastern poison ivy, Japanese honeysuckle, rambler rose, blackberry species, and common wormwood. Common reed is scattered throughout and along the forest stand edge. Vines are dominant as ground cover in this layer. Invasive species cover is high throughout this stand. Overall, this stand is in poor condition as invasive species are dominant throughout and trees are stressed and damaged from heavy vine coverage.

### Stand 1FS12 (NRI Map Sheet 2)

Stand 1FS12 is a mid-successional willow oak and black locust forest. Canopy closure is approximately 75 percent with a dominant size class of 20-30" DBH. The canopy is dominated by willow oak, black locust, and sweetgum. Southern red oak (*Quercus falcata*), black cherry, Callery pear, northern red oak (*Quercus rubra*), white mulberry, and red maple (*Acer rubrum*) are also common in this layer. Dominant species in the understory include eastern poison ivy, Japanese honeysuckle, rambler rose, groundseltree, horsebrier (*Smilax rotundifolia*), American holly, Virginia creeper, Asian bittersweet, and blackberry species. Dominant species in the herbaceous layer include Japanese honeysuckle, English ivy, eastern poison ivy, Asian bittersweet, and goldenrod species (*Solidago* sp.). Common reed is scattered and along the forest stand edge. Vines are dominant as ground cover in this layer. Invasive species cover is high throughout this stand. Overall, this stand is in fair condition. Canopy trees are in good health, however, invasives species are prevalent throughout the stand with some climbing vines.

### Stand 1FS13 (NRI Map Sheet 2)

Stand 1FS13 is a mid-successional willow oak and southern red oak forest. Canopy closure is approximately 90 percent and a dominant size class of 12-20" DBH. The canopy is dominated by willow oak, southern red oak, northern white oak, and sweetgum. Red maple and black cherry are also common in this layer. Dominant species in the understory include horsebrier, Virginia creeper, eastern poison ivy, trumpet-creeper, rambler rose, blackberry species, and highbush blueberry (*Vaccinium corymbosum*). The forest interior has a more open understory. Dominant species in the herbaceous layer include eastern poison ivy, Japanese honeysuckle, and Virginia creeper. Common reed is dominant along the forest stand edge. Invasive species cover is medium throughout this stand. Overall, this stand is in fair condition as the forest interior is diverse with an open understory, but the forest stand edge is more disturbed with heavier vine and invasive cover.

### Tree Survey

A total of 120 trees were identified within the study area. This includes 112 stand-alone trees and 8 specimen trees located within forest stands. An additional 16 trees or shrubs with a DBH of less than 1.5" were identified within the CBCA. The locations of these trees are included on the maps in **Appendix B**. Information regarding the species, size, and condition of each identified tree is included on the table in **Appendix G**.

### 4.0 Conclusions

A total of 10 WOTUS features were identified within the study area. Impacts to these resources may require authorization from the United States Army Corps of Engineers (USACE) and/or the Maryland Department of the Environment (MDE). Thirteen forest stands, 15 hedgerows, 24 woody vegetation clusters, 112 stand-alone trees, 8 specimen trees, and 16 small trees or shrubs were identified within the study area. Impacts to trees and/or forest may require authorization from Maryland Department of Natural Resources (DNR).

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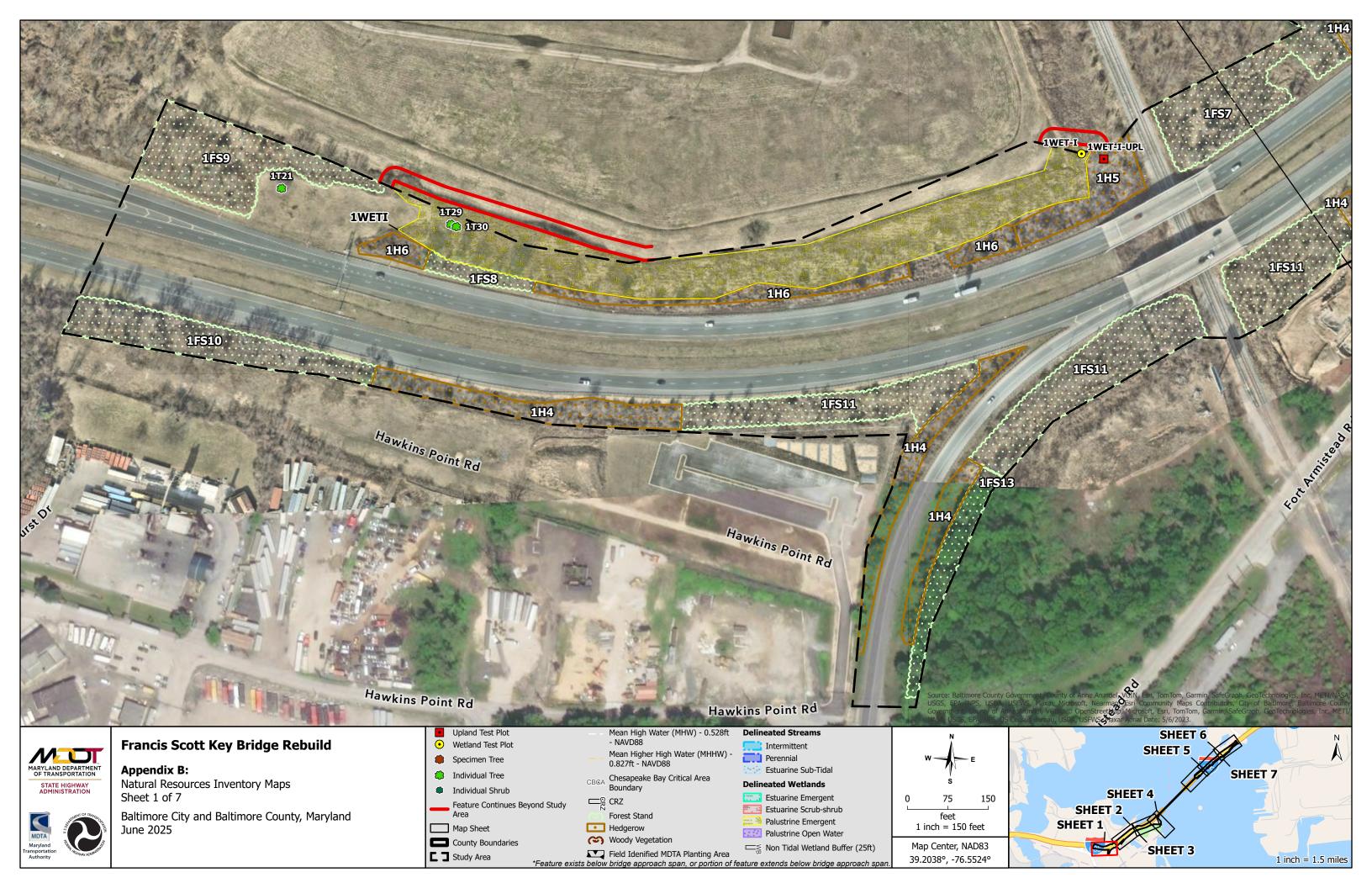
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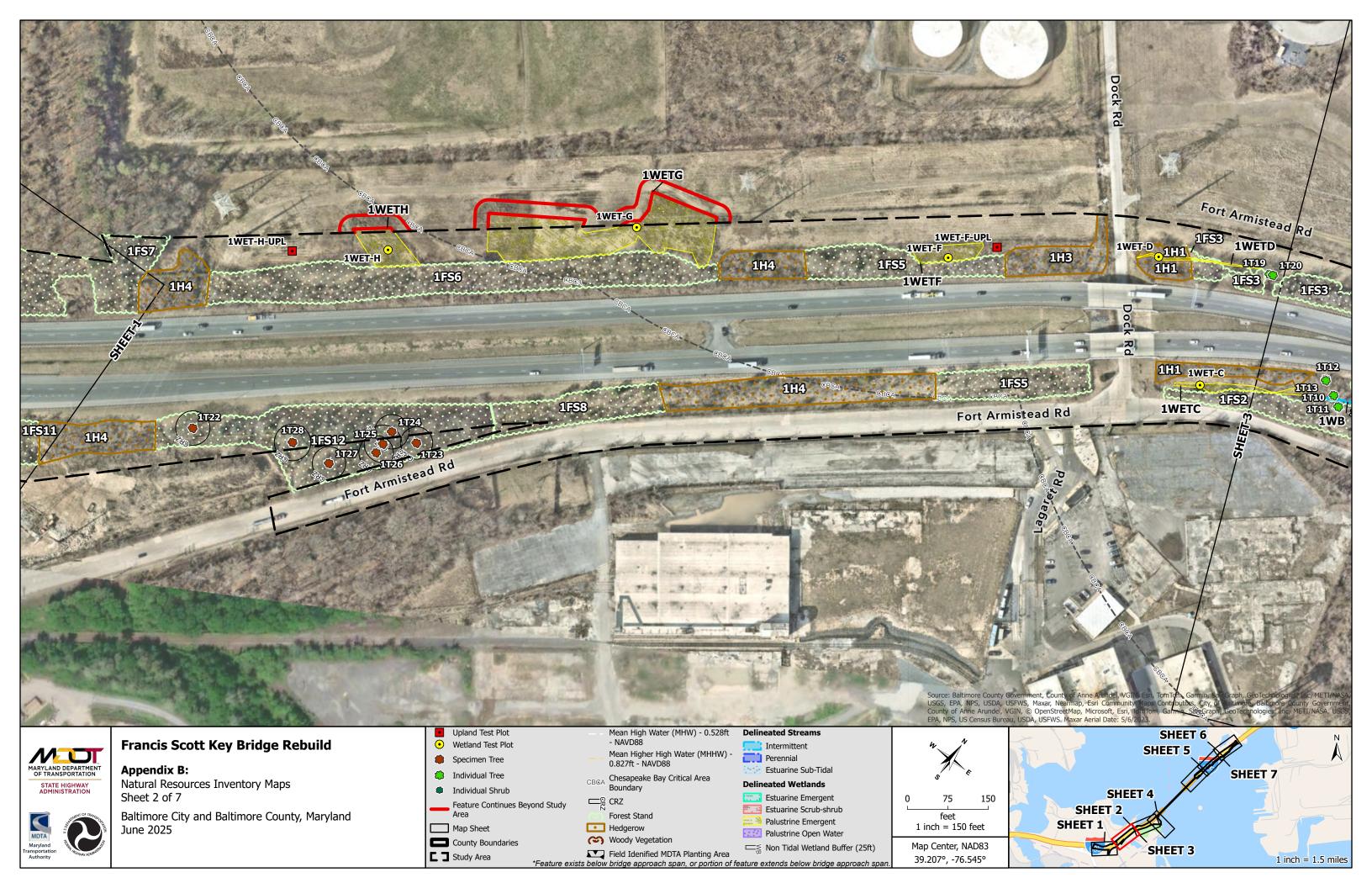
**APPENDIX A: VICINITY MAP** 

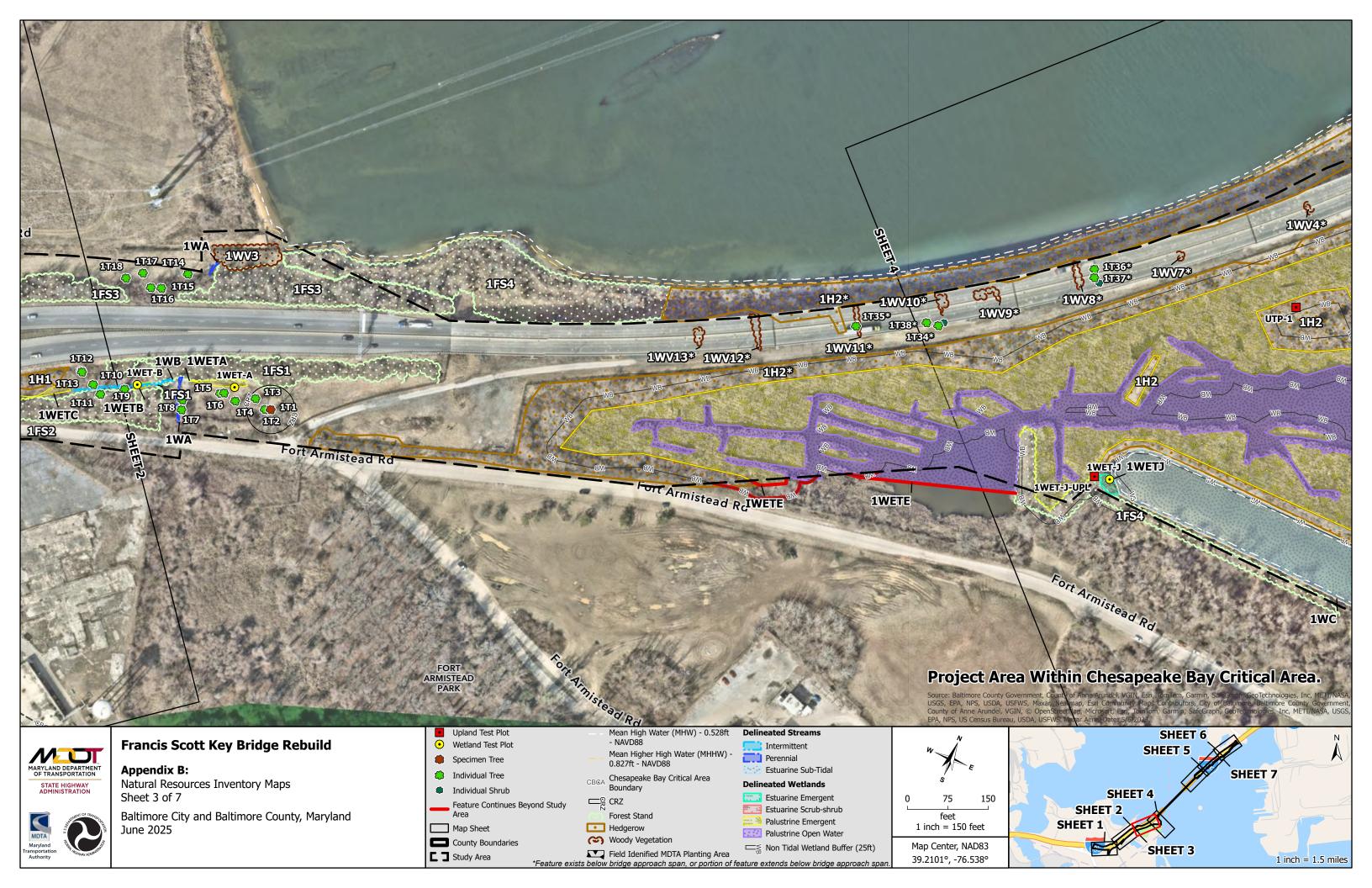


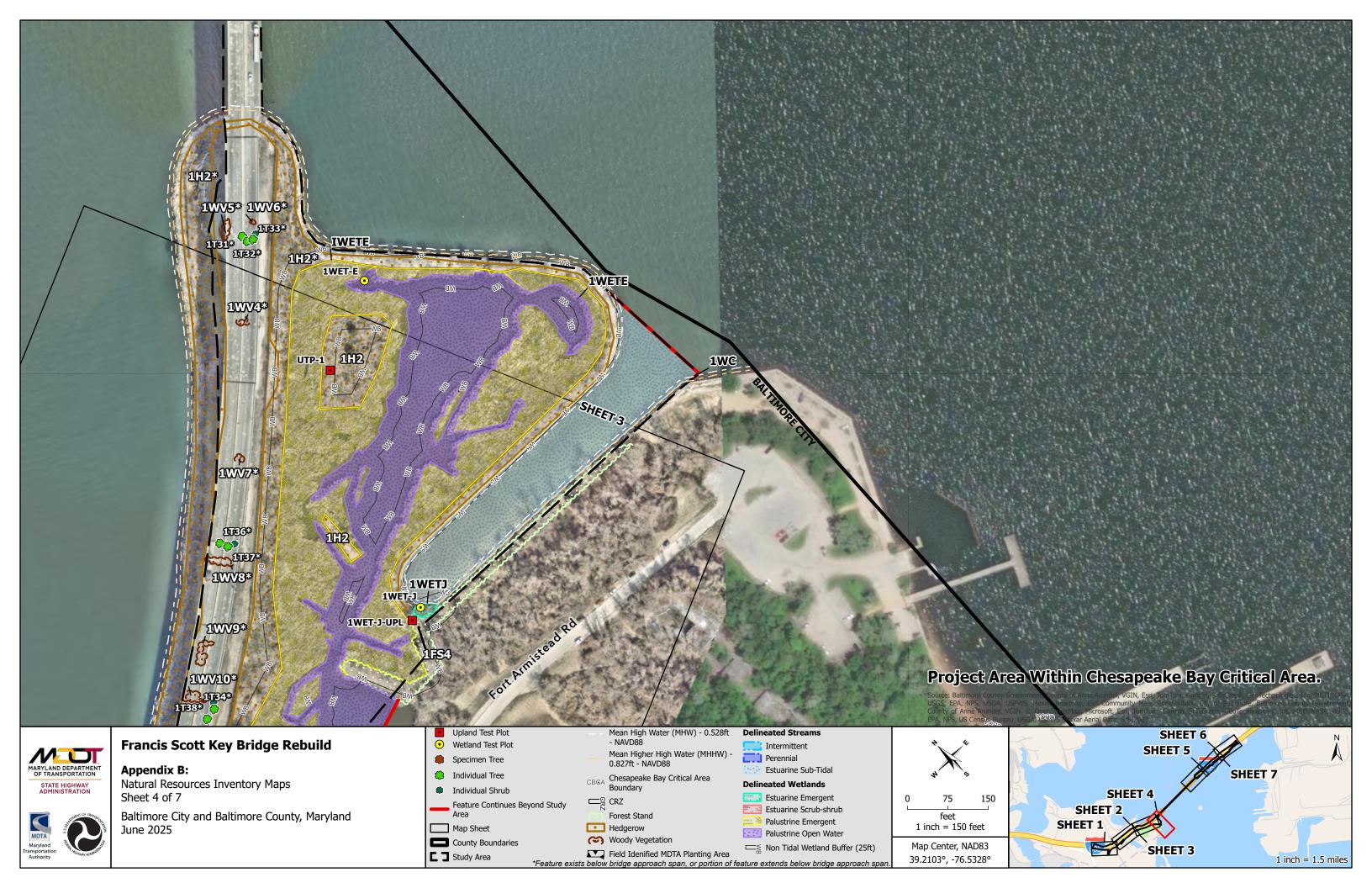
APPENDIX B:	NATURAL	RESOUCES	INVENTOR	Y MAP

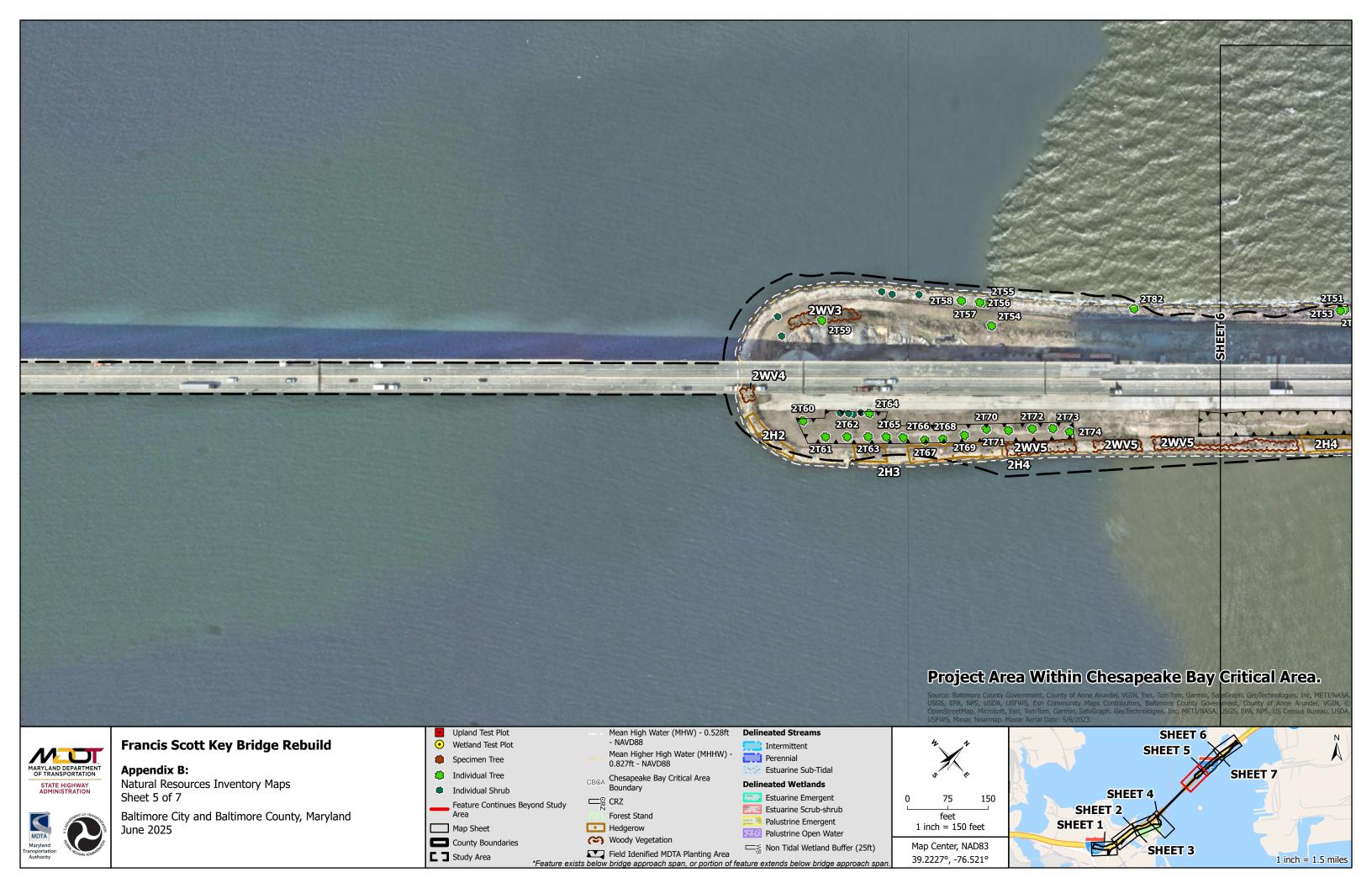
Appendix B Francis Scott Key Bridge Rebuild Project-Natural Resource Inventory Report



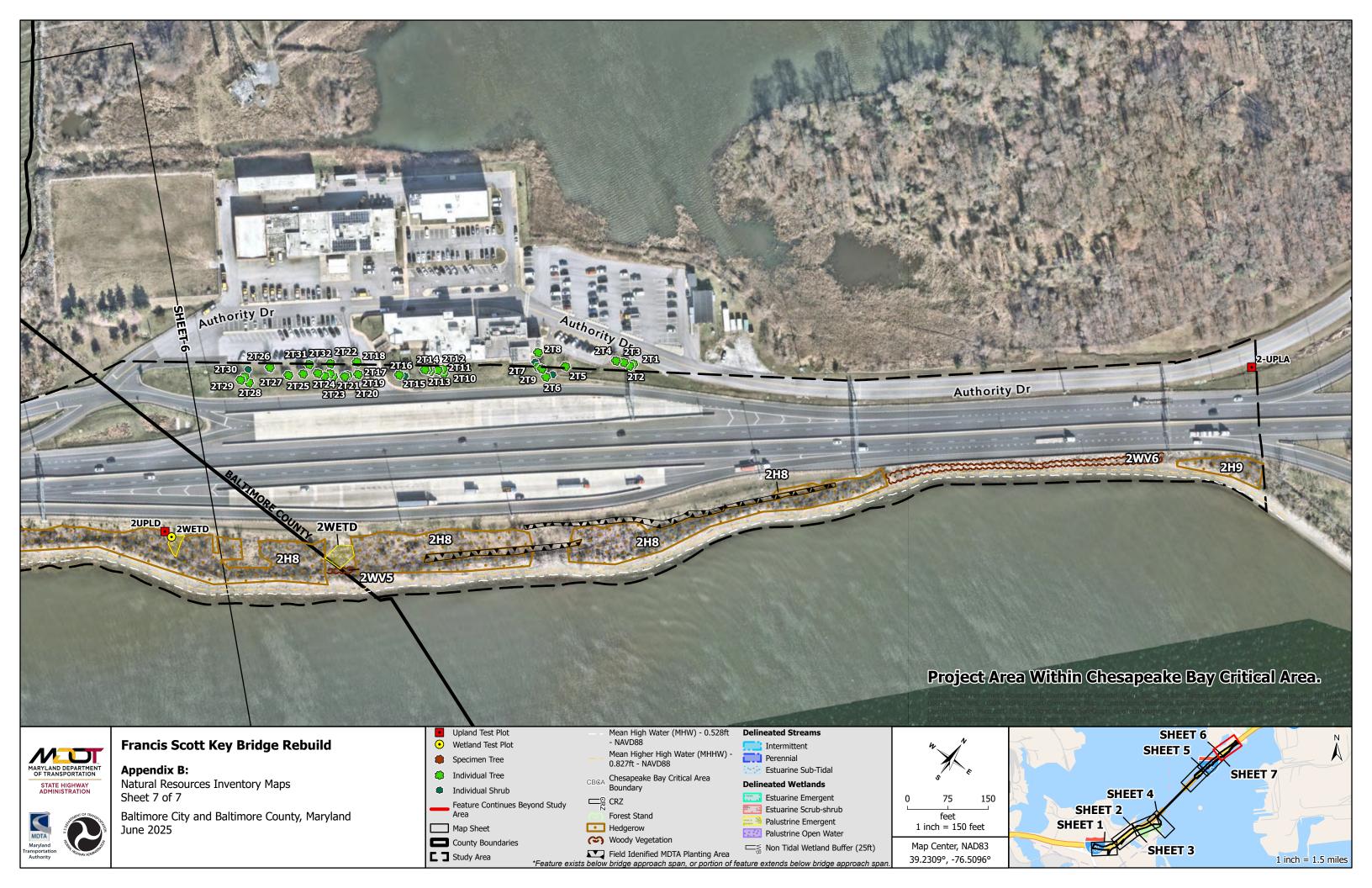












Francis Scott Key Bridge Rebuild Project-Natural Resource Inventory Repor	Francis Scott Kev	v Bridge Rebuild Proi	iect-Natural Resource	Inventory	/ Report
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**APPENDIX C: WOTUS SUMMARY TABLE** 

# Appendix C: Francis Scott Key Bridge Rebuild Project Wetland Summary Table

				Dominant Vegetation			
Wetland Number	Delineated Area (AC)	Cowardin Classification/Wetland Type	Hydrology	Scientific Name	Common Name	Indicator Status	Soils
1WETA (NRI Map Sheet 3)	0.02	PEM1C (Depression/Toe-of-Slope)	Surface Water, High Water Table, Saturation, Drainage Patterns, Geomorphic Position, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, loamy, very deep, 0 to 8% slopes  Depleted Below Dark Surface (A11) and Depleted Matrix (F3)  0-3 inches of 7.5YR3/2, clay, and  3-12 inches of 7.5YR 4/1, with 7.5YR5/8 redox concentrations, clay
1WETB (NRI Map Sheet 3)	0.003	PEM1C (Toe-of-Slope)	Surface Water, High Water Table, Saturation, Sediment Deposits, Geomorphic Position, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, loamy, very deep, 0 to 8% slopes  Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6)  0-6 inches of 2.5YR3/2 with 2.5YR4/8 redox concentrations, clay, and  6-12 inches of 2.5YR4/1 with 2.5YR4/8 redox concentrations, clay loam
1WETC (NRI Map Sheet 2 and 3)	0.05	PEM1C (Toe-of-Slope)	Surface Water, High Water Table, Saturation, Drainage Patterns, Geomorphic Position, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, loamy, very deep, 0 to 8% slopes  Redox Dark Surface (F6)  0-9 inches of 10Y 3/2 with 10Y 5/8 redox concentrations, clay loam
1WETD (NRI Map Sheet 2)	0.02	PEM1C (Toe-of-slope/Ditch)	Surface Water, High Water Table, Saturation, Sediment Deposits, Algal Mat or Crust, Geomorphic Position, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Urban Land, 0 to 15% slopes  Depleted Matrix (F3)  0-6 inches of 10YR 4/2 with 2.5 YR5/6 redox concentrations, clay
1WETE (NRI Map Sheets 3, 4 and 5)	6.21	PEM1F (Impoundment)	Surface Water, Water Marks, Inundation Visible on Aerial Imagery, Aquatic Fauna, Geomorphic Position, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, smoothed, 0-35% slopes.  Sandy Mucky Mineral (S1) 0-12 inches of 10YR3/2, loamy sand with organics
1WETF (NRI Map Sheet 2)	0.08	PEM1A/B (Depression)	High Water Table, Saturation, Saturation Visible on Aerial Imagery, Geomorphic Position, FAC- Neutral Test	Diospyros virginiana Baccharis halimifolia Phragmites australis	Common Persimmon Groundseltree Common Reed	FAC FAC FACW	Udorthents, clayey, very deep, 0-15% slopes.  Redox Dark Surface (F6)  0-8 inches of 10YR 3/2 with 5YR 4/4 redox concentrations, fine sandy loam
1WETG (NRI Map Sheet 2)	0.70	PEM1A/B (Depression)	Surface Water, High Water Table, Saturation, Saturation Visible on Aerial Imagery, Geomorphic Position	Baccharis halimifolia Phragmites australis Holcus lanatus Toxicodendron radicans Smilax rotundifolia	Groundseltree Common Reed Common Velvet Grass Eastern Poison Ivy Horsebrier	FAC FACW FACU FAC FAC	Udorthents, clayey, very deep, 0-15% slopes  Redox Dark Surface (F6)  0-4 inches of 10YR 3/2 with 5YR4/6 redox concentrations, silt loam
1WETH (NRI Map Sheet 2)	0.13	PEM1A/B (Depression)	Surface Water, High Water Table, Saturation, Saturation Visible on Aerial Imagery, FAC-Neutral Test	Baccharis halimifolia Liquidambar styraciflua Phragmites australis	Groundseltree Sweet-Gum Common Reed	FAC FAC FACW	Udorthents, clayey, very deep, 0-15% slopes  Depleted Matrix (F3)  0-8 inches of 7.5YR4/2 with 5YR4/6 redox concentrations,  sandy clay loam

				Dom	inant Vegetation		
Wetland Number	Delineated Area (AC)	Cowardin Classification/Wetland Type	Hydrology	Scientific Name	Common Name	Indicator Status	Soils
1WETI (NRI Map Sheet 1)	2.55	PEM1A/B (Depression/Swale)	High Water Table, Saturation, Water-Stained Leaves, Saturation Visible on Aerial Imagery	Populus alba Baccharis halimifolia Phragmites australis	White poplar Groudseltree Common Reed	N/A FAC FACW	Udorthents, clayey, very deep, 0-15% slopes  Redox Dark Surface (F6)  0-4 inches of 10YR2/2 with 7.5YR4/4 redox concentrations, sandy clay loam
1WETJ (NRI Map Sheets 3 and 4)	0.01	E2EM1 (Intertidal)	Surface Water, High Water Table, Saturation, Water Marks, Sediment Deposits, Drift Deposits, Geomorphic Position, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, smoothed, 0-35% slopes  Histosol (A1) 0-18+ inches of 10YR2/1, silt loam with organics, tidal muck
2WETA (NRI Map Sheet 6)	0.05	E2SS1 (Depression)	Surface Water, High Water Table, Saturation, Water Marks, Sediment Deposits, Drift Deposits, Algal Mat or Crust	Baccharis halimifolia Phragmites australis	Groundseltree Common Reed	FAC FACW	Udorthents, highway, 0 to 65% slopes  Sandy Redox (S5)  3-16 inches of 2.5Y6/2 with 7.5YR4/6 redox concentrations, loamy sand
2WETB (NRI Map Sheet 6)	0.12	E2EM5 (Depression)	Surface Water, High Water Table, Saturation, Drift Deposits, FAC-Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, highway, 0 to 65% slopes  Sandy Redox (S5)  3-12 inches of 10YR5/2 with 5YR4/6 redox concentrations, loamy sand
2WETC (NRI Map Sheet 6)	0.14	E2SS1 (Shoreline)	Surface Water, High Water Table, Saturation, Water Marks, Sediment Deposits, Drift Deposits, Algal Mat or Crust, FAC-Neutral	Baccharis halimifolia Spartina alternifolia	Groundseltree Saltwater cord grass	FAC OBL	Udorthents, highway, 0 to 65% slopes  Sandy Redox (S5)  0-4 inches of 2.5Y7/2 with 7.5YR4/6 redox concentrations,  loamy sand
2WETD (NRI Map Sheet 7)	0.05	PEM5 (Toe-of-slope)	Oxidized Rhizospheres along Living Roots, FAC- Neutral Test	Phragmites australis	Common Reed	FACW	Udorthents, highway, 0 to 65% slopes  Depleted Matrix (F3)  0-6 inches of 10YR4/1 with 2.5YR3/4 redox concentrations,

# Francis Scott Key Bridge Rebuild Project Watercourse Summary Table

Watercours Number	Delineated	Cowardin	Nearest Downstream Named	Lies Class	Channel Ch	aracteristics	Commonte
Watercourse Number	Size (LF/AC)	Classification	Stream	Use Class	Average Channel Width	Average Channel Depth	Comments
1WA (NRI Map Sheet 3)	112 LF	R4UB1	Patapsco River	I	3′	1" - 8"	Intermittent stream that flows from a culvert to 1WC and abuts 1WETA and 1WB.
1WB (NRI Map Sheets 2 and 3)	187 LF	R4UB1	Patapsco River	I	1' – 4'	1' – 4'	Intermittent stream that flows from 1WETC to 1WA and abuts 1WETB
1WC (NRI Map Sheets 3 – 7)	1.66 AC	E1UB	Chesapeake Bay	I	5,500′	50′	Patapsco River, begins and ends outside the study area.

**APPENDIX D: DATASHEETS** 

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: MATH MARY LOOP RINS City/O	County: Batt City Sampling Date: alaolay
Applicant/Owner: UDTA	State: ND Sampling Point: 1-WETA
A STATE OF THE STA	on, Township, Range:
Landform (hillslope, terrace, etc.): to e of \$1000 Local	
	77 Long: -76.54669 Datum: NAD1983
Soil Map Unit Name: 408 Udortheads, Loaving, very deep, O	The state of the s
Are climatic / hydrologic conditions on the site typical for this time of year? Y	
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	ipling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks: Westand collecting sheet fin Runs west to WB Dh. L.	a from east and toe of slope.
RMAS WEST TO WER	
Photos 8	087-88
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Harl Deposits (B15) (LRF	RU) Drainage Patterns (B10)
Saturation (A3)	- Company of the Comp
Water Marks (B1)	
Sediment Deposits (B2)	
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7)	Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
Iron Deposits (B5)  Other (Explain in Remark	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	. 11
· · · · · · · · · · · · · · · · · · ·	
	<u>4"</u>
Saturation Present? Yes V No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
Normalis.	
	$H \cap F_{k}$
·	•

VEGETATION (Four Strata) - Use scientific names of plants.

Sampling Point: 1WET-A

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: WIA)	% Cover Species? Status	
	Occurs Ocalus	Number of Dominant Species
1. <u>NA</u>		That Are OBL, FACW, or FAC:(A)
2		· ·
		Total Number of Dominant
3	· — — — — — — — — — — — — — — — — — — —	Species Across All Strata: (B)
4		
,		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:(A/B)
6	·	
7		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
8		
	= Total Cover	OBL species x 1 =
FOR/ := \$4-4-1	····-	FACW species x 2 =
	20% of total cover:	
Sapling/Shrub Stratum (Plot size: NA)		FAC species x 3 =
1NA		FACU species x 4 =
		UPL species x 5 =
2		<u></u>
3		Column Totals: (A) (B)
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
		1 <del>-</del>
6		1- Rapid Test for Hydrophytic Vegetation
7.		2 - Dominance Test is >50%
8		
O		3 - Prevalence Index is ≤3.01
	= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	20% of total cover:	
5V1N		
Herb Stratum (Plot size: 5 X 1.0')	( \	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Pragmies dustrais	65 Y FACIAL	be present, unless disturbed or problematic.
2.		Definitions of Four Vegetation Strata:
3		Tees Miles de Blanks and Miles de la Colonia Colonia
4		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of
5,		height.
6		Continue/Charles Manager alanta acceleration of the continue o
		Sapling/Shrub – Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		Haub All books and the state of
		Herb – All herbaceous (non-woody) plants, regardless
9.		of size, and woody plants less than 3.28 ft tall.
10		Manda vine All woods vines questowith as 0.00 ft in
4.6		Woody vine - All woody vines greater than 3.28 ft in
		height.
12	·	
vi	= Total Cover	
<u>-</u>	Z 1')	l i
50% of total cover: <u>ಎ</u> ಡ್.	20% of total cover: 13	
Woody Vine Stratum (Plot size: NA )		
1 NA		
— 13 h		
2		
3		
4		
5		Hadronkadio
	T / 10	Hydrophytic
•	= Total Cover	Vegetation
50% of total cover:	20% of total cover:	Present? Yes No
Remarks: (If observed, list morphological adaptations below	an)	
Tromano, (ii observed, liet morphological adaptations beto	vv /.	
		.)
e de la companya del companya de la companya del companya de la co		
		ļ
, *·		

	٠,	Atr.	-	
Sampling Doints		2LMM	F-7	Д
Sampling Point:	_	<u> </u>	<u> </u>	Zl

SOIL

	cription: (Describe t	o me aepi	h needed to docun	ient the i	naicator	or conזırı	n the absence	or indicators.	)	
Depth	Matrix			(Feature:	3					
(inches)	Color (moist)		Color (moist)	%	_Type <sup>1</sup>	_Loc <sup>2</sup>	Texture		Remarks	
0-3	J.54R312	100					Clan	fine roots	in upper inc	h
		•					Ø		J 1	
2-17	7.5484/1	90 :	TSVASIO	10	$\overline{}$	$\overline{M}$	clau			
3-1%	TEMEST	<u> </u>	1. JIK JIX	10		1.4	<u>cay</u>	gravel	resent	
<u> </u>									<u>'</u>	
				1/2						
ļ <del></del>	· · · · · · · · · · · · · · · · · · ·		<del></del>						<del></del> .	
									<del></del>	
	oncentration, D≃Deple					ains.		PL≃Pore Linir		
Hydric Soil	Indicators: (Applica	ble to all L	RRs, unless other	wise note	ed.)		indicators	for Problema	tic Hydric Solls³:	
. Histosol	(A1)		Polyvalue Bel				J) 📙 1 cm N	luck (A9) (LRF	R O)	
. Histic E	pipedon (A2)		Thin Dark Su	face (S9)	(LRR S,	T, U)	2 cm №	/luck (A10) <b>(LR</b>	RS)	
. =	istic (A3)		Loamy Mucky	Mineral (	(F1) (L <b>R</b> R	(O)	— HReduc	ed Vertic (F18)	) (outside MLRA 1	50A,B)
1 😐 🦿	en Sulfide (A4)		Loamy Gleye		F2)				Soils (F19) (LRR F	P, S, T)
	d Layers (A5)		Depleted Mat	• •					amy Solls (F20)	
_	Bodies (A6) (LRR P,		. Redox Dark S		•		1 1 '	RA 153B)		
	icky Mineral (A7) (LR		Depleted Dark					arent Material		
1 =	resence (A8) (LRR U)		Redox Depres	•	3)			hallow Dark Si	• •	
	ick (A9) (LRR P, T)		Mari (F10) (Li				Other	(Explain in Rer	narks)	
· = ·	d Below Dark Surface	(A11)	Depleted Och				_ 3, ,,			_
. =	ark Surface (A12)	I DA 480A	Iron-Mangane		, , ,		•		ohytic vegetation a	nd
	rairie Redox (A16) (M Auglor Minoral (S1) (L					, <b>u</b> )			must be present,	
==	lucky Mineral (S1) (LI Bleyed Matrix (S4)	KK U, 3)	Delta Ochric (		-	0A 4E0D\		ess disturbed o	r problematic.	
. =	Redox (S5)		Piedmont Flor			-				
1 <del>                                     </del>	Matrix (S6)						м.) А 149А, 153С	153D\		
	rface (S7) <b>(LRR P, S,</b>	T. UY	Anomalous D.	igin Loan	ny oona (i	ZV) (MEN	A 143A, 1330	, 1990)		
	_ayer (If observed):	., .,					1			<del></del>
Type:	anyor (ii onoorron).									
I -: —	-LY-		<del></del>					D	V	
Depth (in	cnes):						Hydric Soil	Present? Y	es No _ 	
Remarks:										
]										
Ì										

#### WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: MDT/4 city/county: Bathmore Applicant/Owner: MOTA Sampling Point: SLY Investigator(s): Section, Township, Range: Landform (hillslope, terrace, etc.): bottomof hillslopes Local relief (concave, convex, none): Slope (%): Lat. 39.208499 Long: -76.541285 Datum: NAO 19 Subregion (LRR or MLRA): Soil Map Unit Name: 408 Udor theart'S largery Very dela 0 to 8 percent states NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? Yes within a Wetland? Wetland Hydrology Present? Yes Remarks: 1018 - 0018 **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) ☑ \_High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Titled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Depth (inches): Surface Water Present? Water Table Present? Depth (inches): Saturation Present? Depth (inches): Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

VEGETATION (	(Four Strata)	– Use scientific	names of plants.

Sampling Point: <u>1WETB</u>

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA )	% Cover Species? Status	Number of Dominant Species
1NA	- <u> </u>	That Are OBL, FACW, or FAC: (A)
2		Total Muschen of Bendanut
3		Total Number of Dominant Species Across All Strata:(B)
4		Loa
		Percent of Dominant Species
5	•	That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
7	·	Total % Cover of: Multiply by:
8	·	1
	= Total Cover	OBL species x 1 =
50% of total cover;	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: NA )		FAC species x 3 =
1. NA		FACU species x 4 =
		UPL species x 5 =
2		Column Totals: (A) (B)
3		(6)
4	·	Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6		Rapid Test for Hydrophytic Vegetation
7		1 <del>- 7</del>
		2 - Dominance Test is >50%
8		☐ 3 - Prevalence Index is ≤3.01
	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size: 5 × 6 ?	7/ V 5/4	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Phragmits australis	70 Y FACW	be present, unless disturbed or problematic.
2. Lovicena japonica	10 N FACU	Definitions of Four Vegetation Strata:
) \ \		-
4.		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of height.
5		
6		Sapling/Shrub - Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		No. 1
44		Woody vine – All woody vines greater than 3.28 ft in height.
12.		rieigni,
12.	\$1	
Wh	Total Cover	
50% of total cover:	20% of total cover:	
Woody Vine Stratum (Plot size: NA )		
1NA		
2		
3.		
4		
E		/.
9.		Hydrophytic
	= Total Cover	Vegetation
50% of total cover:	20% of total cover:	Tesenti TesNo
Remarks: (If observed, list morphological adaptations belo	w).	

Ligitie Des	onphon. (Dosonbe	•	ii iiaauau to uocuii	ICITE LIIG I	IIWIOULOI	OI OOIIIIII	m the absence of indicators.)
Depth	Matrix		Redox	c Features	S		
<u>(inches)</u>	Color (moist)	<u></u> %	Color (moist)	_%	_Type <sup>1</sup>	Loc2	Texture Remarks
O-6	2.54R212	_80_	2.5 YR 418	20	$\mathcal{C}$	Μ	dayloon
			1 a				7
7 10	25401111	2	OLUBRI A	200		<u> </u>	
6-12	254R4/1	<u> 75</u> .	<u>2,228418</u>	<u> </u>	<u>~</u>	<u>M</u>	clay ban
							O
							·
1Tunor CuC	oncentration, D≕Depl	otion DM=	Doduced Matrix MC	-Maakad	Cond On	-!	24 and the Discount Indian Ad-Markets
	indicators: (Applica					ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis³:
I		anie io ali I					
Histosol			Polyvalue Bel				· ·
	pipedon (A2)		Thin Dark Sur				2 cm Muck (A10) (LRR S)
	istic (A3)		Loamy Mucky			(O)	Reduced Vertic (F18) (outside MLRA 150A,B)
1 <del></del>	en Sulfide (A4)		Loamy Gleye		F2)		☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
Towns or the same of the same	d Layers (A5)		Depleted Mat				
_	Bodies (A6) (LRR P,		Redox Dark S				(MLRA 153B)
	icky Mineral (A7) (LR		Depleted Dark				Red Parent Material (TF2)
	esence (A8) (LRR U)	l	Redox Depres	-	3)		☐ Very Shallow Dark Surface (TF12)
	ick (A9) (LRR P, T)		☐ Mari (F10) (LI	-			Uther (Explain in Remarks)
	d Below Dark Surface	(A11)	Depleted Och				
	ark Surface (A12)		Iron-Mangane				
	rairie Redox (A16) (M					, U)	wetland hydrology must be present,
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric (				unless disturbed or problematic.
_	Sleyed Matrix (S4)		Reduced Vert				
	Redox (S5)		Piedmont Floo				
	Matrix (S6)		Anomalous Bi	right Loan	ny Soils (I	-20) <b>(ML</b> R	RA 149A, 153C, 153D)
∐ Dark Su	rface (S7) (LRR P, S,	, T, U)					
							·
	Layer (if observed):						
							./
Restrictive	Layer (if observed):		_				Hydric Soil Present? Yes No
Restrictive	Layer (if observed):						Hydric Soil Present? Yes No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No
Restrictive I Type: Depth (in-	Layer (if observed):						Hydric Soil Present? Yes No No

### WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: MSTA	City/County: Balt Move City Sampling Date: 2/20/24
Applicant/Owner: NOTA	State: MD Sampling Point: 1WETC
C. V. CCII	Section, Township, Range:
	Local relief (concave, convex, none): Local relief (concave, convex, none):
	208546 Long: -76.542296 Datum: NAD1983
Search Till	
Soil Map Unit Name: Wis Vdorthents barny, very de	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Are climatic / hydrologic conditions on the site typical for this time of ye	/ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soll, or Hydrology significantly	ly disturbed? Are "Normal Circumstances" present? Yes V No No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No	ls the Sampled Area within a Wetland? Yes No
phragnites ditch at the a photos - 8103-8104	of slope,
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one Is required; check all that apply)	<u> </u>
Surface Water (A1)	
High Water Table (A2)  Mari Deposits (B15)	
Saturation (A3) Hydrogen Sulfide (	
☐ Water Marks (B1) ☐ Oxidized Rhizosph	heres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	iced iron (C4)
Drift Deposits (B3)	ction in Tilled Soils (C6)Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	
Iron Deposits (B5)	<del>_</del> /
Inundation Visible on Aerial Imagery (B7)	<u>✓</u> FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes V No Depth (Inches Water Table Present? Yes No Depth (inches	
Saturation Present? Yes No Depth (inches (includes capillary fringe)	s):   Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photo	tos, previous inspections), if available:
Remarks:	
	·

<b>VEGETATION</b>	/Four 9	Stratal _	l lea eciantific	namee of	nlante
	tı val c	Juata) —	くっと うくにいだいし	Hallies UI	piai Ilo.

Sampling Point: 1-WETC

Tree Stratum (Plot size: NA )		Dominant		Dominance Test worksheet:
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_% Cover	Species?	Status	Number of Dominant Species
1NA				That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5	- <u></u>			Percent of Dominant Species That Are OBL, FACW, of FAC: (A/B)
6				
7				Prevalence Index worksheet:
8.				Total % Cover of:Multiply by:
		= Total Cov		OBL species x 1 =
E00/ of total covers				FACW species x 2 =
50% of total cover:	20% 01	total cover		FAC species x 3 =
. NM				FACU species x 4 =
				UPL species x 5 =
2				Column Totals: (A) (B)
3				Column Totals (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
				l <del>=</del>
50% of total cover:				Problematic Hydrophytic Vegetation¹ (Explain)
Herb Stratum (Plot size: 5' × (0')	2078 01	LOLAI COVEL	·	
Ma Maria Sande Con Col.	8c	V	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Thragantes oustrays				be present, unless disturbed or problematic.
2 I Lonicera japonica			EACU	Definitions of Four Vegetation Strata:
3. Bacchan's Kalimifolia			FAC	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Ruhars Phnenicolasius	<u>&gt;</u>	<u>N</u>	FACU	more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
B				Harb All harbasaus (non woods) plants resembles
9				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10.				
				Woody vine – All woody vines greater than 3.28 ft in
11 12.	· <del></del> -			height.
12,	IINC	T. (-) O-		
K) F		Total Cov	. 17	
50% of total cover:	<u>&gt;</u> 20% of	total cover:		
Woody Vine Stratum (Plot size: NA )				
1NA				
2	· —— .			
3				
4				
5				Hydrophytic
•	=	Total Cov	ег	Vegetation
50% of total cover:		total cover:		Present? Yes No
Remarks: (if observed, list morphological adaptations belo				
Transmitter (ii) oboot rout hist morphological adaptations belo	· • · · · · ·			
water of the				

Profile Description: (Describe to the dep	th needed to document th	e indicator or confi	rm the absence of indicators.)	
Depth <u>Matrix</u>	Redox Feat		_	
(inches) Color (moist) %	Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>		
0-9 WYR31290	WK 5/8 10	_ <u> </u>	<u>Clayloan</u>	1
	,			
9-13 INVR 3/2 100			May Loan	
				·
				<del></del>
			- <del></del>	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM			<sup>2</sup> Location: PL=Pore Lining, M=Ma	
Hydric Soil Indicators: (Applicable to all	_	•	Indicators for Problematic Hydric	: Soils":
Histosol (A1)	Thin Dark Surface (	rface (S8) (LRR S, T,		
Histic Epipedon (A2) Black Histic (A3)	Loamy Mucky Miner		2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside	MI DA 150A R\
Hydrogen Sulfide (A4)	Loamy Gleyed Matr	•	Pledmont Floodplain Soils (F19	
Stratified Layers (A5)	Depleted Matrix (F3		Anomalous Bright Loamy Soils	
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface	· ·	(MLRA 153B)	
5 cm Mucky Mineral (A7) (LRR P, T, U)	'		Red Parent Material (TF2)	
Muck Presence (A8) (LRR U)	Redox Depressions	(F8)	Very Shallow Dark Surface (TF	12)
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U) ☐ Depleted Ochric (F1	1) (MI RA 151)	U Other (Explain in Remarks)	
☐ Thick Dark Surface (A12)		sses (F12) (LRR O, I	P, T) <sup>3</sup> Indicators of hydrophytic veg	etation and
Coast Prairie Redox (A16) (MLRA 150)			wetland hydrology must be	
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (	•	unless disturbed or problem	atic.
Sandy Gleyed Matrix (S4)		3) (MLRA 150A, 150E	•	
Sandy Redox (S5) Stripped Matrix (S6)	_	n Soils (F19) (MLRA <sup>.</sup> Damy Soils (F20) (ML	149A) .RA 149A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)	Anomalous bright D	Dailiy Colla (1 20) (ML	.m. 140/2, 1330, 1330)	
Restrictive Layer (if observed):				
Type:				/
Depth (inches):			Hydric Soil Present? Yes	No
Remarks:				
earl broken	Muddie Soil	is last a	mas well	
74 2.0	<b>N</b>	C NOO! O	NO SWILL	
welland has! the bare dist	val d			
	Cr Car -			
			·	
				;

#### WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Landform (hillslope, terrace, etc.): +iii of slope./ditch Local	State: MD Sampling Point: 1NET D  on, Township, Range:
SUMMARY OF FINDINGS – Attach site map showing san	ipling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks: Photos: 6560-6561  HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)	C1)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, presents; Standing water West end of westand contects water from Stope 3 road re	Wetland Hydrology Present? Yes No vious inspections), if available:

•			
<b>VEGETATION</b>	(Four Strata)	- Use scientific	names of plants.

Sampling Point: <u>IWETD</u>

Tree Stratum (Plot size: N/A)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)  1	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		·
3		Total Number of Dominant Species Across All Strata:(B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 100% (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8	= Total Cover	OBL species x 1 =
50% of total cover	= Total Cover	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: N/A)	20 % of total cover	FAC species x 3 =
1		FACU species x 4 =
2.		UPL species x 5 =
3		Column Totals: (A) (B)
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6		
7		2 - Dominance Test is >50%
8	- <del></del>	3 - Prevalence Index is ≤3.01
	= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	20% of total cover;	
Herb Stratum (Plot size: 5'×10')	009 11 -001	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Phragmites australis	- 902 Y FACW	
2 Lonictra japonica		Definitions of Four Vegetation Strata:
3		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of height.
5		
6.       7.		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		
9		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10.		
11.		Woody vine – All woody vines greater than 3.28 ft in height.
12		
50% of total cover: <u>47.5</u>	% 20% of total cover: 19%	
Woody Vine Stratum (Plot size:)		
1. Ly (2) : (4) - 1.		
2		
3		
4		
5		Hydrophytic
50% of total cover:	= Total Cover	Vegetation
Remarks: (If observed, list morphological adaptations belo		
rventariks. (ii observed, list morphological adaptations beto	ow).	

SOIL								Sampling Point: U-WFT
Profile Des	cription: (Describe	to the dep	th needed to docu	ment the i	ndicator o	r confirm	the absence	
Depth	Matrix		Redo	x Features	<u> </u>			
(inches)	Color (moist)	%	Color (moist)	%	<u>Type<sup>1</sup></u> .	Loc <sup>2</sup>	<u>Texture</u>	Remarks Remarks
0-6"	104R 4/2	90 °	2.64R5/6	108	<u> </u>	$\mathbf{M}$	clay	
6-14"	104R6/8	<u>702</u>	57R5/8	30%	_C_	М.	CLOY	Pill Sails
							•	
					<del></del>			
				-				
Tyne: C=C	concentration, D=Dep	letion RM:	Reduced Matrix M	 S=Maskad	Sand Grai	ine	2l ocation	PL=Pore Lining, M=Matrix.
	Indicators: (Applic					1110.		for Problematic Hydric Soils <sup>3</sup> :
Histoso			Polyvalue Be		-	RR S. T. L		Muck (A9) (LRR O)
<b>=</b>	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
	Istic (A3)		Loamy Muck					ed Vertic (F18) (outside MLRA 150A,
Hydroge	en Sulfide (A4)		Loamy Gleye			•		iont Floodplain Soils (F19) (LRR P, S, 1
_	d Layers (A5)		Depleted Ma	trix (F3)			∐ Anoma	alous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	•	•			RA 153B)
	ucky Mineral (A7) (LF				• •			arent Material (TF2)
=	resence (A8) (LRR U	1)	Redox Depre	•	s)			Shallow Dark Surface (TF12)
	uck (A9) <b>(LRR P,</b> T) d Below Dark Surfac	o (A11)	Marl (F10) (L Depleted Oc		R#I DA 464	41	<u> </u>	(Explain in Remarks)
<b>-</b>	ark Surface (A12)	e (MII)	Iron-Mangan			•	T) <sup>3</sup> India	cators of hydrophytic vegetation and
=	rairle Redox (A16) (I	WLRA 150	_				•	tland hydrology must be present,
	Jucky Mineral (S1) (I		Delta Ochric			-,		ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve			A, 150B)		
📘 Sandy F	Redox (S5)		Piedmont Fid	odplain Sc	ils (F19) (	MLRA 14	9A)	
	l Matrix (S8)		Anomalous E	Bright Loam	y Solls (F	20) (MLR	A 149A, 153C	, 153D)
	rface (S7) (LRR P, S						T	
	Layer (if observed):							
Type:								/
Depth (in	ches):		<del></del> -				Hydric Soil	Present? Yes V No
Remarks:								
eviden	ice of fill r	natchic	41					
fill soi	12							
•								
			-					

WEILAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: FSK Rebuil City/County: Baltamore Outry Sampling Date: 5/3/24
Applicant/Owner: State: MD Sampling Point: 1WEJE-
Investigator(s): D. Sun, h. K. Ma Hawas Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%):
Subregion (LRR or MLRA): MLRA 149A Lat: 39.21/814 Long: -74.53388 Datum: NAD
Soil Map Unit Name: <u>Udov Hearts</u> , <u>Smoothed</u> , <u>O 35%</u> Slopes NWI classification: <u>PEM IC A</u> Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology significantly disturbed? // Are Normal Circumstances present? Yes No
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present?  Remarks:  No
PEMIF
HYDROLOGY
Wetland Hydrology Indicators:  Secondary Indicators (minimum of two required)  Printing of the continuous of two required to the continuous of
Prishary Indicators (minimum of one is required; check all that apply)  Surface Soil Cracks (B6)
✓ Surface Water (A1) ✓ Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (LRR U)  Drainage Patterns (B10)
Saluration (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16)
✓ Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7) \( \sum_{\text{Geomorphic Position (D2)}} \)
Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3)
✓ Inundation Visible on Aerial Imagery (B7)  ✓ FAC-Neutral Test (D5)
Waler-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)
Field Observations:
Surface Water Present? Yes V No Depth (inches): 6-12+
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Appears to be palustrine impoundment, with seasonal tidal
Appears to be palustrine impoundment, and
influence
Christian

<b>VEGETATION</b> (Four Strata) -	<ul> <li>Use scientific names of plants.</li> </ul>
-----------------------------------	---

Sampling Point: / WETE-/

Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  Multiply by:  OBL species FACW species FACW species FACU species
Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  OBL species FACW species FACW species FACU
Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL species
Prevalence Index worksheet:   Total % Cover of:
Total % Cover of:
OBL species
FACW species
FAC species
FACU species
UPL species
Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  A - Rapid Test for Hydrophytic Vegetation
Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
1 - Rapid Test for Hydrophytic Vegetation
1 - Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is >50%
3 - Prevalence Index is ≤3.01
= Total Cover Problematic Hydrophytic Vegetation¹ (Explain)
FACH Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Definitions of Four Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm)
more in diameter at breast height (DBH), regardless height.
Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Woody vine – All woody vines greater than 3.28 ft ir height.
= Total Cover
f total cover: 50
= Total Cover   Vegetation   Present?   Yes   No
total cover.

-	-	•	

Sampling Point: WETE-

(inches) C	Matrix	-		Features	-	
	Color (moist)	%	Color (moist)	% Type Loc2	Texture	Remarks
0-14 W	153/2	100 -			15	W Osganics
	20-25 2 4 000					
				Masked Sand Grains.		PL=Pore Lining, M=Matrix.
	ators: (Applica		Rs, unless otherv			for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	- (42)			ow Surface (S8) (LRR S, T,		Muck (A9) (LRR O)
<ul><li>Histic Epipedo</li><li>Black Histic (A</li></ul>				ace (S9) (LRR S, T, U) Mineral (F1) (LRR O)		Muck (A10) <b>(LRR S)</b> ed Vertic (F18) <b>(outside MLRA 150A,</b> E
Hydrogen Sulf			Loamy Gleyed			iont Floodplain Soils (F19) (LRR P, S, T
Stratified Laye			Depleted Matri			alous Bright Loamy Soils (F20)
Organic Bodie	es (A6) (LRR P,	T, U)	Redox Dark So	urface (F6)	(ML	RA 153B)
	fineral (A7) (LRF		Depleted Dark			arent Material (TF2)
	e (A8) (LRR U)		Redox Depres			Shallow Dark Surface (TF12)
1 cm Muck (As	w Dark Surface	(A11)	Mari (F10) (LR	ic (F11) (MLRA 151)	Other	(Explain in Remarks)
_ Thick Dark Su		(/(11)		se Masses (F12) (LRR O, F	P. T) <sup>3</sup> India	cators of hydrophytic vegetation and
	Redox (A16) (MI	LRA 150A)		e (F13) (LRR P, T, U)		tland hydrology must be present,
Sandy Mucky	Mineral (S1) (LF		Delta Ochric (F	17) (MLRA 151)		ess disturbed or problematic.
_ Sandy Gleyed				c (F18) (MLRA 150A, 150E		
_ Sandy Redox				dplain Soils (F19) (MLRA 1		4520)
Stripped Matri:	x (Sb) (S7) <b>(LRR P, S,</b>	T 11)	Anomaious Bri	ght Loamy Soils (F20) (ML	RA 149A, 153C	, 1530)
Restrictive Layer		1, 0)				
Туре:						
Depth (inches):					Hydric Soil	Present? Yes No
Remarks:						
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			1-119 -1
0	/	( <	. ) et	1-1-1	1/11	1+11/2 50/
Let	nanut	191	1 NOON (16	M LKELY.	Very	11118 20,1
		-		11:11	1	.:) //
,	Lact	111	0.106	( 50,1 W	1 con:	little 50,1 sidesable
1-1-	nocci u	1 /1	nogo			
ext						
ext	11-1					
ext W	VCK.					
ext M	VCK.					
ext W	UCK.					
ext W	vck.					
ext M	vck.					
ext W	vck.					
ext W	VCK.					
ext W	VCK.					
ext W	VCK.					
ext W	VCK.					
ext M	VCK.					
ext W	VCK.					
ext M	VCK.					

### WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: FSK Bridge c	ity/County: Baltmore Cuty Sampling Date: 5/6/24
Applicant/Owner: MDTAJ	State: MP Sampling Point: WETF
40 00	Section, Township, Range:
Landform (hillslope, terrace, etc.): Depressim	ocal relief (concave, convex, none): (Mullium Slope (%): 5
	08284 Long: -76,544114 Datum: NADE
Soil Map Unit Name: Udorthents, clavery, very dee	
Are climatic / hydrologic conditions on the site typical for this time of year	1'
Are Vegetation, Soil, or Hydrology significantly di	
Are Vegetation, Soil, or Hydrology naturally prob	elematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing s	sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	Within a votalia.
Soils disturbed from 695 + B6E	PEMIAJB
HYDROLOGY	Mark WOMAN I I Shirt I was a state of the same of the
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (	(LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Od	
	res along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)  Presence of Reduced  Record less Reduction	
☐ Drift Deposits (B3) ☐ Recent Iron Reduction ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C	
Iron Deposits (B5)  Other (Explain in Rer	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? YesNo Depth (inches):	2 11
Saturation Present? Yes No Depth (inches): _ (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	
Rain in past 24 hrs.	
Moore in the second	

<b>VEGETATION</b>	Four	Strata) -	- Use	scientific	names	of	plants
AFOLIVIOIA	I Oui	oti ata,	030	30101111110	Harries	O.	piai ito.

Sampling Point: WETF

Tree Stratum (Plot size: 20 ×50)	Absolute			Dominance Test worksheet:	
. N.M.	% Cover	_		Number of Dominant Species That Are OBL, FACW, or FAC:(	(A)
2 3				Total Number of Dominant Species Across All Strata:	(B)
J				Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/E
5.				Prevalence Index worksheet:	-
7.				Total % Cover of:Multiply by:	
B				OBL species x 1 =	
	=	Total Cov	er		
50% of total cover:	20% of t	total cover:		FAC species x 2 =	
Sapling/Shrub Stratum (Plot.size; 20 × 50 )	-	/	~ / ·	FACIl appeign	
Diospyros Virginiana	_ 0_		MATC	FACU species x 4 =	
Backlaris halimfolia	_ 5	-	FAC	UPL species x 5 =	
				Column Totals: (A)	(B)
·				Prevalence Index = B/A =	
5.				Hydrophytic Vegetation Indicators:	
·				1 - Rapid Test for Hydrophytic Vegetation	
3.				2 - Dominance Test is >50%	
		Total Cov	or	☐ 3 - Prevalence Index is ≤3.01	
50% of total cover: 5			_	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	1
Herh Stratum (Plot size: 10×25		otal cover.		<sup>1</sup> Indicators of hydric soil and wetland hydrology mu	ıet
Phragmites australis	90	/	FACE	be present, unless disturbed or problematic.	131
Lonicera japonica	_ 3		FACU	Definitions of Four Vegetation Strata:	
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cn	~\ ~
4.				more in diameter at breast height (DBH), regardles	
5				height.	
5.				Sapling/Shrub - Woody plants, excluding vines, lo	222
·				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	500
0				Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.	less
0					
1.				Woody vine – All woody vines greater than 3.28 ft height.	in
2.					
	93 =	Total Cov	er		_
50% of total cover: 4			1 1		
Voody Vine Stratum (Plot size: 20×50)	2070 071				
Nne					
3.					
ł					
5				Hydrophytic Vegetation	
500/-51-11		Total Cov		Present? Yes No	
50% of total cover:		otal cover:			
Remarks: (If observed, list morphological adaptations be	elow).				

		e to the dep				r or confir	m the absence of in	dicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature:	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
A-7	10 4R 3/2	95	SVR414	-10	7,00	M	Fire Sal	Nomento
00	101/2312		0111111	00		-		
2-8	1011012	80	370714	20		M	Fire SeL	
8-154	10 48712	95	2.5 YK 516	5	C	M	Sal	
								* 1
						-		
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, MS	S=Masked	Sand G	rains.		Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise note	ed.)		Indicators for F	Problematic Hydric Soils <sup>3</sup> :
☐ Histoso	I (A1)		Polyvalue Be	low Surfa	ce (S8) (	LRR S, T,	U) 1 cm Muck	(A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Su	ırface (S9)	(LRR S	, T, U)	2 cm Muck	(A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral	(F1) (LR	R 0)		ertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye		F2)			loodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					Bright Loamy Soils (F20)
	Bodies (A6) (LRR I		Redox Dark				(MLRA 1	•
	ucky Mineral (A7) (L							Material (TF2)
	resence (A8) (LRR		Redox Depre	,	3)			w Dark Surface (TF12)
=	uck (A9) (LRR P, T)		Marl (F10) (L		(14) DA	154)	Other (Expl	ain in Remarks)
=	d Below Dark Surfa	ce (ATT)	Depleted Ocl				T) <sup>3</sup> Indicators	of hydrophytic vegetation and
_	ark Surface (A12) rairie Redox (A16) (	MI DA 150/			, ,			hydrology must be present,
	Mucky Mineral (S1)		Delta Ochric					isturbed or problematic.
= .	Gleyed Matrix (S4)	(LIKIT O, O)	Reduced Ver					iotal bod of problematic
	Redox (S5)		Piedmont Flo					
	Matrix (S6)						RA 149A, 153C, 153	D)
Dark Su	rface (S7) (LRR P,	S, T, U)						
Restrictive	Layer (if observed)	):						
Type:								
Depth (in	ches):						Hydric Soil Pres	ent? Yes No
Remarks:								
remarks.								
	· V							

# WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: FSK Bridge c	ity/County: AA Co Sampling Date: 5/6/2024
Applicant/Owner: MDTA	State: MD Sampling Point: WETF-W
ER CC	ection, Township, Range:
	ocal relief (concave, convex, none): Mave Slope (%): 3
2 having (IRR and IRA) MIRA 119 A	08474 Long: -74,543899 Datum: NAD 83
Soil Map Unit Name: Udorthents, clayey, Very deep	
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation, Soil, or Hydrology significantly di	isturbed? Are "Normal Circumstances" present? Yes Ves No
Are Vegetation, Soil, or Hydrology naturally prob	lematic? M (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing s	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	In the Complet Area
Hydric Soil Present? YesNo	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Slope of 695 embankment. Received of from highwarf Soils	ives significant stormwater disturbed from 695 + BGE ROW
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (	
Saturation (A3) Hydrogen Sulfide Od	
	es along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	
Drift Deposits (B3)  Algal Mat or Crust (B4)  Recent Iron Reductio	
Algal Mat or Crust (B4)  Iron Deposits (B5)  Thin Muck Surface (C	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? YesNo Depth (inches):	
Water Table Present? Yes No Depth (inches):	4"
Saturation Present? Yes Noepth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections) if available:
Describe Necorded Data (Stream gauge, mornoring well, actial priotos,	provides inspectioners, in available.
Remarks:	
Rain within past 24 hrs	
Nach William past 21119	
p <sup>2</sup>	
	The state of the s

### **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: WETF-WL

70 × 50	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 20 7 50)	% Cover	Species?		Number of Dominant Species
1. Robinia pseudo acacia		1	WPL	That Are OBL, FACW, or FAC: (A)
2. Liquidambar 8thracylus			FAC	Tatal Number of During to
3.				Total Number of Dominant Species Across All Strata:  (B)
				Species Across Air Strata. (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
0				OBL species x 1 =
7		= Total Cov		FACW species x 2 =
50% of total cover: 3	20% of	total cover	1.4	
Sapling/Shrub Stratum (Plot size: 20 / 50 )		/		FAC species x 3 =
1. Baccharis haminifolia	15	/	FAC	FACU species x 4 =
2. Liquidambar styraciflus	7		EA.	UPL species x 5 =
3. Rubus argutus			EAR	Column Totals: (A) (B)
3. Rubus argums	- —		1770	(5)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	10			3 - Prevalence Index is ≤3.0 <sup>1</sup>
	18	= Total Cov	er	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
50% of total cover:	20% of	total cover	3.60	
Herb Stratum (Plot size: 10 x 25, )				
1. Phragmites australis	65	/	[APIN	¹Indicators of hydric soil and wetland hydrology must
7	- 40		HILLAN	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				The Mandy plants evaluating since 2 in (7.0 cm) or
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
				height.
5				
6.				Sapling/Shrub - Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
				, s. 5.22, and 1002, promotos and 1002 it is
10				Woody vine - All woody vines greater than 3.28 ft in
11.				height.
12				
	65	= Total Cov	er	
50% of total cover: 32			1	
Woody Vine Stratum (Plot size: 20×50)	20 /0 01	COLOR COVE		
vvoody vine Stratum (Plot size: 20.00)	フヘ	/	TAPIL	
1. Lonicera japonica	00	V	HTCU	
2. Partheholdissus glunguetalia	20		MACU	
3				
1				
T				
5	for the same of th			Hydrophytic
	00	= Total Cov	er	Vegetation
50% of total cover: 25	20% of	total cover	10	Present? Yes No
Remarks: (If observed, list morphological adaptations below				
	J			
240.				
				·

	Matrix	0/		x Features	T 1	12	Tardina	Demorks
inches)	Color (moist)	- %	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
)-1	104173/3	98	7.5 VK 4/4	d	_	M	Fire Sall	
-4	10YR 313	93	7.5 YR4H	7	C	M	Fre SaCL	
-12+	54R 514	99	2.54B516	1	C	M	Sal	
16	-0111.071							
ma: C=0	Concentration, D=Dep	nletion PM=	Peduced Matrix MS	S=Masked S	Sand Gra	ine	<sup>2</sup> Location: PL =F	Pore Lining, M=Matrix.
	I Indicators: (Applic					21110.		roblematic Hydric Soils <sup>3</sup> :
Histoso			Polyvalue Be			RR S. T. I		A9) (LRR O)
	Epipedon (A2)		Thin Dark Su					A10) (LRR S)
	Histic (A3)		Loamy Muck					rtic (F18) (outside MLRA 150
	en Sulfide (A4)		Loamy Gleye			-,		oodplain Soils (F19) (LRR P, S
	ed Layers (A5)		Depleted Ma		•		Anomalous I	Bright Loamy Soils (F20)
Organi	c Bodies (A6) (LRR P	P, T, U)	Redox Dark	Surface (F6)	)		(MLRA 15	3B)
5 cm M	lucky Mineral (A7) (L	RR P, T, U)	Depleted Dai	rk Surface (F	F7)			Material (TF2)
	Presence (A8) (LRR L		Redox Depre	, ,				v Dark Surface (TF12)
1 cm N	luck (A9) (LRR P, T)		Marl (F10) (L				U Other (Expla	in in Remarks)
	ed Below Dark Surfac	ce (A11)	Depleted Ocl	, , ,			2	
	Oark Surface (A12)		Iron-Mangan					of hydrophytic vegetation and
	Prairie Redox (A16) (I					U)		nydrology must be present,
	Mucky Mineral (S1) (	LRR O, S)	Delta Ochric			0.4 450D		sturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver					
	Redox (S5) d Matrix (S6)		Piedmont Flo				49A) RA 149A, 153C, 153[	1)
	urface (S7) (LRR P, \$	S T III	Anomalous E	origint Loarny	30113 (1	20) (WILI	(A 143A, 1330, 133L	5)
	Layer (if observed)							
	Layor (ii oboor roa)							
I Vne:								
	oches):						Hydric Soil Press	ent? Yes No V
	nches):						Hydric Soil Prese	ent? Yes No
	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No 🗸
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No 🗸
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No <u>//</u>
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No V
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No V
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No <u>/</u>
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No 🗸
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No

#### WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: F Sampling Date: 5 Sampling Point: W Applicant/Owner: Investigator(s): 16 Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): 10MC Subregion (LRR or MLRA): Y Soil Map Unit Name: (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes 👱 Are "Normal Circumstances" present? Yes \_\_ Are Vegetation \_\_\_\_ . Soil or Hydrology \_ significantly disturbed? , or Hydrology \_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.) Are Vegetation \_\_\_ SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? HYDROLOGY Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) Aquatic Fauna (B13) Drainage Patterns (B10) High Water Table (A2) Marl Deposits (B15) (LRR U) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Saturation (A3) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

### **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: WETG

Tree Stratum (Plot size: 30 )  1. Nove  2		= Total Covertotal cover	FACW	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  Multiply by:  OBL species  X 1 =  FACW species  X 2 =  FAC species  X 3 =  FACU species  X 4 =  UPL species  Column Totals:  (A)  (A)
50% of total cover:  60.	20% of	= Total Covertotal cover	FACW	Species Across All Strata:
55. 66. 77. 88.  50% of total cover:  Sapling/Shrub Stratum (Plot size: 30)  1. Bacchan's Maminifolia  2. Sambulus Migra  3. 4. 6. 6. 7.	20% of	= Total Cover	FACW	That Are OBL, FACW, or FAC:         (A/B)           Prevalence Index worksheet:         Multiply by:         OBL species         X 1 =         FACW species         X 2 =         FACW species         X 3 =         FACU species         X 4 =         UPL species         X 5 =         UPL species         X 5 =         UPL species
50% of total cover:	20% of	= Total Cover	FAC FACW	Total % Cover of:         Multiply by:           OBL species         x 1 =           FACW species         x 2 =           FAC species         x 3 =           FACU species         x 4 =           UPL species         x 5 =
50% of total cover:	20% of	= Total Covertotal cover	FAC FACW	Total % Cover of:         Multiply by:           OBL species         x 1 =           FACW species         x 2 =           FAC species         x 3 =           FACU species         x 4 =           UPL species         x 5 =
50% of total cover:	20% of	= Total Covertotal cover	FAC FACW	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =
50% of total cover:	20% of	total cover	FAC FACW	FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =
Sapling/Shrub Stratum (Plot size: 30)  1. Bacchan's haminifolia 2. Sambulus higher 3. 4. 5. 6. 7.	10 2		FACW	FAC species
1. Baccharis naminitolia 2. Sambucus nigra 3. 4. 5.			FACW	FACU species x 4 = UPL species x 5 =
2. Sambucus nigra 3. 4. 5.			FACW	UPL species x 5 =
3			HACW	
4				Column lotals: (A) (B)
5				
6				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
	17-	= Total Co		3 - Prevalence Index is ≤3.01
50% of total cover:	0 200/ -6	+ rotal Co	2.4	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1/1	<u>/</u> 20% or	total cover		
Herb Stratum (Plot size: 13 1. Phragmites australis	40	//	FACEN	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Holcus lanatus,	30		FACU	Definitions of Four Vegetation Strata:
3. Toxicodendron radicans	10		FAC	Tree Meady plants evaluding vines 2 in (7.6 cm) o
Junais effisis	5		OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless or
5. Dichanthelleum clandestinum	2		FACW	height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7	_			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11				Woody vine – All woody vines greater than 3.28 ft in height.
12.				neight.
	87	= Total Co	er	
50% of total cover:	3.5 20% of		/	
Woody Vine Stratum (Plot size: 30)	20 /0 01	total cover		
1. Smilax rotundifolia	5		FAC	
2. Toxicodendron radicans	-5	-/	TAC	
2. John Conference To The Conference Confere			VIIC	
r				
).	10			Hydrophytic Vegetation
50% 5141		= Total Co		Present? Yes No
50% of total cover:		total cover		
≺emarks: (If observed, list morphological adaptations be	elow).			
Remarks: (If observed, list morphological adaptations be	elow).			

Deptite   Matrix   Redox Features   Type   Loc   Texture   Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.   C
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.   Cacation: PL=Pore Lining, M=Matrix.   Polyvalue Below Surface (S8) (LRR S, T, U)   Cacation: PL=Pore Lining, M=Matrix.   Indicators for Problematic Hydric Solis*:   Indicators for Problematic Hydric Solis
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Type: Cachonic Pterper Lining, M=Matrix.  Indicators for Problematic Hydric Soils³:  Indicators for Problematic Hydric Soils (F18) (LRR P, T, U)  Depleted Matrix (F3)  Depleted Matrix (F3)  Depleted Matrix (F3)  Depleted Dark Surface (F13) (LRR P, T, U)  Depleted Dark Surface (F13) (LRR P, T, U)  Depleted Dark Surface (S7) (LRR P, S, T, U)  Reduced Vertic (F18) (MLRA 159A)  Anomalous Bright Loamy Soils (F20) (MLRA 149A)  Hydric Soil Present? Yes No
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Type: Cachonic Pterper Lining, M=Matrix.  Indicators for Problematic Hydric Soils³:  Indicators for Problematic Hydric Soils (F18) (LRR P, T, U)  Depleted Matrix (F3)  Depleted Matrix (F3)  Depleted Matrix (F3)  Depleted Dark Surface (F13) (LRR P, T, U)  Depleted Dark Surface (F13) (LRR P, T, U)  Depleted Dark Surface (S7) (LRR P, S, T, U)  Reduced Vertic (F18) (MLRA 159A)  Anomalous Bright Loamy Soils (F20) (MLRA 149A)  Hydric Soil Present? Yes No
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.    Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.   PL=Pore Lining, M=Matrix.   Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils <sup>3</sup> :   Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)

#### WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: FSK Rebuil City/County: AA Co Applicant/Owner: MDTA Sampling Point: Investigator(s): EB, T Section, Township, Range Landform (hillslope, terrace, etc.): Den 181000 Local relief (concave, convex, none): Lat: 39.206596 Long: -76.547079 Subregion (LRR or MLRA): MLRAIL Soil Map Unit Name: Udoy hew NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_ (If no, explain in Remarks.) \_\_, Soil \_\_\_\_, or Hydrology \_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? N (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Primapy Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Algal Mat or Crust (B4) Thin Muck Surface (C7) Other (Explain in Remarks) Shallow Aquitard (D3) Iron Deposits (B5) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Total Number of Dominant Species Across All Strata:  Percent of Dominant Species	30		Dominant		Dominance Test worksheet:	
Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Total Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Total Species Across All Strata:  Total Scover of Multiply by:  OBL species x 1 = FACW species x 2 = FACW species x 2 = FACW species x 2 = FACW species x 3 = FACW species x 4 = UPL species x 5 = Column Totals:  (A) Prevalence Index = SA = UPL species x 5 = Column Totals:  (A) Prevalence Index = SA = UPL species x 5 = Column Totals:  (A) Prevalence Index = SA = UPL species x 5 = Column Totals:  (A) Prevalence Index = SA = UPL species x 5 = Column Totals:  (A) Prevalence Index = SA = UPL species x 5 = Column Totals:  (B) Problematic Hydrophytic Vegetation Indicators:  (B) Problematic Hydrophytic Vegetation (Explain Strata:  (B) Problematic Hydrophytic Vegetation (Explain Strata:  (B) Problematic Hydrophytic Vegetation (Explain Strata:  (B) Problematic Hydrophytic Vegetation Strata:  (B) Problematic	11011					(A)
Species Across All Strata:    Species Across All Strata:   Species Across All Across All Across Across All Across All Across Across All Across All Across Acro					Total Number of Dominant	
Ferceit of Set Jackson Stratum (Plot size: 50% of total cover: 150% of total cover: 20% of total cover: 30% of total cover: 20% of total cover: 50% of total cover: 20% of total cover: 50% of total cover: 20% of total cover: 30% of total cover: 20% of total cover: 30% of total cover: 30						(B)
That Are OBL. FACW, or FAC:  That Are OBL. FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of.  Multiply by:  OBL species x1 = FACW species x2 = FACW species x3 = FACW species x4 = UPL species x5 = Column totals:  Annual annual annual flux a species x4 = UPL species x5 = Column totals:  Annual annual species x5 = Column totals:  An				943	Percent of Dominant Species	
Total % Cover of Multiply by:  Total % Cover of Multiply by:  OBL species						(A/
Total Cover   Multiply by   Total cover   Solve of total cover   20% of total cover   FACW species   x1 = FACW species   x2 = FACW species   x3 = FACW species   x4 = VEX.   FACW species   x4 = VEX.   FACW species   x5 = FACW					Prevalence Index worksheet:	_
Solution   Stratum   Plot size:   20% of total cover:   20% of t					Total % Cover of: Multiply by:	
FACW species	•		- Total Car		OBL species x 1 =	
FAC species   x 3 =   FAC species   x 4 =   UPL species   x 4 =   UPL species   x 4 =   UPL species   x 5 =   Column Totals:   (A)   Prevalence Index = BIA =   Hydrophytic Vegetation Indicators:   1 - Rapid Test for Hydrophytic Vegetation   2 - Dominance Test is >50% of total cover:   5 - Total Cover   3 - Prevalence Index is \$ - 3.0	50% of total cover					
FACU species   x 4 =		2070 01	total cover		FAC species x 3 =	
Sambacus naturals   Sambacus		8	//	FAC.	FACU species x 4 =	_
Sambucus mayu 2		5		FAR	UPL species x 5 =	_
Prevalence Index = B/A =		2		FACIN	Column Totals: (A)	_ (
Hydrophytic Vegetation Indicators:   1-Rapid Test for Hydrophytic Vegetation   2-Dominance Test is >50% of total cover:   3-50% of total cover:   3-					Drawalance Index - D/A -	
1 Rapid Test for Hydrophytic Vegetation   2 - Dominance Test is >50%   3 - Prevalence Index is ≤3.0°						_
2 Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) Phragmatics australis Problematic Hydrophytic Vegetation Present? Problematic Hydrophytic Vegetation¹ (Explaining in All Problematics australis) Phragmatics australis Phragmatics austra						
3 - Prevalence Index is \$3.0¹   Problematic Hydrophytic Vegetation¹ (Explain   Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.    Definitions of Four Vegetation Strata:   Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles height.    Sapling/Shrub – Woody plants, excluding vines, 1 in. DBH and greater than 3.28 ft (1 m) tall.    Herb – All herbaceous (non-woody) plants, regardles of size, and woody vines greater than 3.28 ft height.    Woody vine – All woody vines greater than 3.28 ft height.    Woody vine Stratum (Plot size:						
Solid Cover						
lerb Stratum (Plot size: 15		15	= Total Cov	/er		n)
Phragmitics australis Oncicle sensibilis Toxicodendom radicans Toxicodendom radicans Tree – Woody plants, excluding vines, 3 in. (7.6 cmore in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 8 than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft height.  Tree – Woody plants, excluding vines, 8 than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Woody vine – All woody vines greater than 3.28 ft height.  Hydrophytic Vegetation Present?  Yes No	_50% of total cover:	5 20% of	total cover	3		,
Tree – Woody plants, excluding vines, 3 in. (7.6 or more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 8 in. (7.6 or more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 8 in. (7.6 or more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 8 in. (7.6 or more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 8 in. (7.6 or more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, 8 in. (7.6 or more in diameter at breast height (DBH), regardles height.  Woody vine – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft height.  Woody vine – All woody vines greater than 3.28 ft height.  Woody Vine Stratum (Plot size:	Phragmites australis	80	/	FACH		านร
Tree - Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles height.    Sapling/Shrub - Woody plants, excluding vines, 1 than 3 in. DBH and greater than 3.28 ft (1 m) tall.   Herb - All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.   Woody vine - All woody vines greater than 3.28 ft height.    Woody Vine Stratum (Plot size: 50% of total cover: 2000 of total cove		10		and the same of th	Definitions of Four Vegetation Strata:	
more in diameter at breast height (DBH), regardles height.  Sapling/Shrub – Woody plants, excluding vines, I than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft height.  Woody vine – All woody vines greater than 3.28 ft height.  Hydrophytic Vegetation Present? Yes No		- 5		FAC	Tree - Woody plants, excluding vines, 3 in. (7.6 d	cm)
than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft height.  Solve of total cover:  20% of total cover:  ———————————————————————————————————		3		FAC		ess
Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft height.  50% of total cover: = Total Cover  = Total Cover  = Total Cover  = Total Cover  Yegetation Present?  Yes No						
of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft height.  Solved Vine Stratum (Plot size:		_			than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
Woody vine – All woody vines greater than 3.28 ft height.  50% of total cover: 50% of total cover: 20% of total cover: 20% of total cover: 50% of					Herb - All herbaceous (non-woody) plants, regar	dle
height.    Total Cover					of size, and woody plants less than 3.28 ft tall.	
height.  50% of total cover: 50% of total cover: 70.00  Foody Vine Stratum (Plot size: 50% of total cover: 70.00  Foody Vine Stratum (Plot size: 7	0				Woody vine – All woody vines greater than 3.28	ft
103 = Total Cover   50% of total cover:   50% of total cover:   70.00	·					
50% of total cover: 51.5 20% of total cover: 70.00  Nordy Vine Stratum (Plot size:)  = Total Cover  50% of total cover: 20% of total cover: Yes No		100				
Coody Vine Stratum (Plot size: 30 )	51					_
= Total Cover Vegetation Present? Yes No		20% of	total cover	10.0		
= Total Cover Vegetation Present? Yes No	Oddy Vine Stratum (Plot size:)					
= Total Cover Vegetation Present? Yes No						
= Total Cover Vegetation Present? Yes No						
= Total Cover Solve of total cover: 20% of total cover: Hydrophytic Vegetation Present? Yes No						
= Total Cover Vegetation Present? Yes No						
50% of total cover: 20% of total cover: Present? Yes No	•		- Total Car			
	FOO/ of total across					
emarks: (IT observed, list morphological adaptations below).			total cover	·		
	amarka: III abaaniaa iiat marabalaajaal adantatiana ba	IOW)				

Depth		o ano dopa				or confirm	m the absence of	indicators.)
	Matrix Color (moist)	%	Color (moist)	x Feature %	S Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
(inches)	7 5/10/4/2	90 -	54R46	7	Type	M	Such	Remarks
000	- 101/2	18 -	2/2/6	_			100	
8-12+	SYR 914	95	2-54246	5		M	Sell	
	(,		T.				11/40	
					1111111			
							-	
<sup>1</sup> Type: C=Co	ncentration, D=Deple	etion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applica	ble to all L	RRs, unless other	wise not	ed.)		Indicators fo	r Problematic Hydric Soils³:
☐ Histosol	(A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S, T, I	U) 1 cm Mu	ck (A9) (LRR O)
Histic Ep	ipedon (A2)		Thin Dark Su	rface (S9)	(LRR S,	T, U)		ck (A10) (LRR S)
Black His	stic (A3)		Loamy Mucky			(0)		Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye		F2)			t Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Mat					us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark S	,	,		(MLRA	
	cky Mineral (A7) (LRI		Depleted Dar Redox Depre					ent Material (TF2) llow Dark Surface (TF12)
	esence (A8) (LRR U) ck (A9) (LRR P, T)		Marl (F10) (L		0)			plain in Remarks)
	Below Dark Surface	(A11)	Depleted Och		(MLRA 1	51)	out of (E)	(Plant III Tromanie)
	rk Surface (A12)	( ,	Iron-Mangane				T) <sup>3</sup> Indicate	ors of hydrophytic vegetation and
Coast Pr	airie Redox (A16) (MI	LRA 150A)	-					nd hydrology must be present,
Sandy M	ucky Mineral (S1) (LF	RR O, S)	Delta Ochric	(F17) <b>(ML</b>	.RA 151)		unless	disturbed or problematic.
Sandy G	leyed Matrix (S4)		Reduced Ver	tic (F18) (	MLRA 15	0A, 150B)		
	edox (S5)		Piedmont Flo		, ,			
	Matrix (S6)		Anomalous B	right Loar	ny Soils (I	=20) (MLR	RA 149A, 153C, 1	53D)
	face (S7) (LRR P, S,	T, U)		20				
	ayer (if observed):							
Type:			_					
							Hydric Soil Pr	esent? Yes / No
Depth (inc	hes):						Tiyanic com t	esent: Tes V No
Depth (inc	hes):	100					11,4.110	esent: 163 <u>//</u> No
	hes):			FA			, injunio com i	esent: 163 NO
	hes):						, , , , , , , , , , , , , , , , , , ,	esent: 163 NO
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	hes):							esent: 1es <u>p</u> No
	hes):							esent: 1es <u>p</u> No
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	hes):							esent. Tes <u>y</u> No

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Applicant/Owner: MDTA Investigator(s): Section, Township, Range: Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Subregion (LRR or MLRA): MIRA Soil Map Unit Name: (1 dorther NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.) , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes , Soil , or Hydrology \_\_\_\_ \_ naturally problematic? N (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) Aquatic Fauna (B13) Marl Deposits (B15) (LRR U) High Water Table (A Drainage Patterns (B10) Moss Trim Lines (B16) Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Crayfish Burrows (C8) Sediment Deposits (B2) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Geomorphic Position (D2) Algal Mat or Crust (B4) Thin Muck Surface (C7) Shallow Aquitard (D3) Iron Deposits (B5) Other (Explain in Remarks) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations: Depth (inches): Surface Water Present? Depth (inches): Water Table Present? Depth (inches): \_\_\_\_\_\_ Wetland Hydrology Present? Yes \_ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: ace water in ~ 570 of plot

### **VEGETATION** (Four Strata) – Use scientific names of plants.

Sampling Point: WETH-WL

That Are OBL, FACW, or FAC:  (A)  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Prevalence Index worksheet:  Total % Cover of:  Multiply by:  OBL species x1 = FACW species x2 = FACW species x3 = FACW species x4 = UPL species x5 = Column Totals:  (A)  (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 Applid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%  3 - Prevalence Index is \$3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)  FACW  That Are OBL, FACW, or FAC:  (A)  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FACW species x4 = UPL species x5 = Column Totals: (A) (B)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 Applid Test for Hydrophytic Vegetation² 2 - Dominance Test is >50%  3 - Prevalence Index is \$3.0¹ Problematic Hydrophytic Vegetation² (Explain)  FACW  That Are OBL, FACW, or FAC:  (A)  (A)  (A)  (B)  Prevalence Index worksheet:  Total % Cover of: Multiply by: OBL species x1 = FACW species x2 = FACW species x2 = FACW species x3 = FACW species x4 = UPL species x5 = Column Totals: (A) (B)  Prevalence Index is solved in the species of the species in the species in the species of the species in the species in the species of the species in the species of the species in the species of the species of the species in the species of the species in the species of the s	30	Absolute Dominant Indicator	Dominance Test worksheet:
Species Across All Strata.   (B)	Tree Stratum (Plot size: 30 )	% Cover Species? Status	
Prevalence Index worksheet:  Total X cover of Multiply by  Solver of total cover:  Solver of Multiply by  Solver of Multiply  Solver of Multiply by  Solver of Multiply by  Solver of M			_
Prevalence Index worksheet:  Total % Cover of:  50% of total cover:  20% of total cover.  FACW species	5		
Total % Cover of:			Prevalence Index worksheet:
BL species			
FACW species			
FAC species x3 = FACU species x4 = UPL species x4 = UPL species x5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover: 20% of total cover: 1-2 - Dominance Test is >50% of total cover:			
FACU species		20% of total cover:	
UPL species x 5 = Column Totals: (A) (B)  Prevalence Index = B/A = Hydrophytic Vegetation Indicators:	apling/Shrub Stratum (Plot size:)		
Column Totals:			
Prevalence Index = B/A =			
Hydrophytic Vegetation Indicators:    1 Rapid Test for Hydrophytic Vegetation   2 Dominance Test is >50%   3 - Prevalence Index is \$3.0'   Problematic Hydrophytic Vegetation   2 Problematic Hydrophytic Vegetation   3 - Prevalence Index is \$3.0'   Problematic Hydrophytic Vegetation   4 Probl			Column Totals (A) (B)
Rapid Test for Hydrophytic Vegetation   2 - Dominance Test is >50%   3 - Prevalence Index is \$3.0"   Problematic Hydrophytic Vegetation   (Explain)			Prevalence Index = B/A =
2 - Dominance Test is >50%  = Total Cover  20% of total cover:  20% of total cover:  20% of total cover:  20% of total cover:  3 - Prevalence Index is ≤3.0¹  Problematic Hydrophytic Vegetation¹ (Explain)  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine - All woody vines greater than 3.28 ft in height.  1. Woody vine - All woody vines greater than 3.28 ft in height.  1. Woody vine - All woody vines greater than 3.28 ft in height.  1. Woody vine - All woody vines greater than 3.28 ft in height.  1. Woody vine - All woody vines greater than 3.28 ft in height.			
= Total Cover 20% of total cover: 20% of total			
= Total Cover 20% of total cover: 20% of total			2 - Dominance Test is >50%
Solve of total cover:   20% of total cover			
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of size, and woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft in height.  Woody vine – All woody vines greater than 3.28 ft in height.  ### Woody vine – All woody vines greater than 3.28 ft in height.  ### Woody vine – All woody vines greater than 3.28 ft in height.  ### Woody vine – All woody vines greater than 3.28 ft in height.		= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
The present? Test australis Solution of total cover:			
Definitions of Four Vegetation Strata:    Junuary   Junu	erb Stratum (Plot size: 15)	50 FACE	
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Solvential cover: 17.49  FACU  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes No	Holaus lanatus	5 FACU	Definitions of Four Vegetation Strata:
To XICOden and To Adicans 20 Parthenocisms quirguefola 5 FACU  Sapling/Shrub – Woody plants, excluding vines, elses than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Woody Vine Stratum (Plot size:	Juneus effisus		
Parthenociscus quinquefolia 5  Earling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Sapling/Shrub – Woody plants, excluding vines, less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation  The part of the property of the pr	Texicodenann radicans	20 FAL	
Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Solved vine Stratum (Plot size:	The state of the s		
than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  50% of total cover:  20% of total cover:  Total Cover			
of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Solved Vine Stratum (Plot size:	And the second second second second		
height.  50% of total cover:			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
height.    1.			Woody vine - All woody vines greater than 3.28 ft in
50% of total cover: 44 20% of total cover: 17.0  /oody Vine Stratum (Plot size:) = Total Cover= Total Cover			
50% of total cover: 44 20% of total cover: 17.4  /oody Vine Stratum (Plot size:) = Total Cover  50% of total cover: 20% of total cover: Hydrophytic Vegetation Present? Yes No	2.	000	
Coody Vine Stratum (Plot size:)	/1/1	1	
Total Cover So% of total cover: 20% of total cover: Present? Yes No		20% of total cover:	
= Total Cover Vegetation Present? Yes No	/oody Vine Stratum (Plot size:		
= Total Cover Vegetation Present? Yes No	None		
= Total Cover   Vegetation   Present?   Yes No			
= Total Cover   Vegetation   Present?   Yes No			
= Total Cover   Vegetation   Present?   Yes No			
= Total Cover Vegetation Present? Yes No			Hydrophytic
50% of total cover: 20% of total cover:		= Total Cover	
	50% of total cover:	20% of total cover:	Present? Yes No

-	-		۰	
		18	п	

Sampling Point: WETH-UPL

Depth   Matrix   Color (most)   %   Color (most)   %   Tupe   Loc'	Profile Descr	ription: (Describe to the	depth needed to document the	ndicator or confirm the	absence of indicators.)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Histosol (A1)  Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Muck Presence (A8) (LRR P, T, U)  Depleted Dark Surface (A9)  Muck Prosence (A8) (LRR P, T)  Depleted Dark Surface (A11)  Trick Dark Surface (A12)  Tron-Manganese Masses (F12) (LRR O, P, T)  Sandy Mucky Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Dark Surface (S6)  Dark Surface (A12)  Depleted Matrix (F1) (LRR O, P, T)  Depleted Delvinc (F17) (MLRA 150, LS0)  Redox Dark Surface (F12)  Depleted Ohric (F17) (MLRA 150, LS0)  Redox Dark Surface (F13)  Cosst Pratine Redox (A16) (MLRA 150A)  Depleted Ohric (F17) (MLRA 150A)  Sandy Redox (S5)  Sandy Redox (S5)  Delta Ochric (F18) (MLRA 150A, 150B)  Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No				S Tuno 1 Loo <sup>2</sup> To	Pomarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	(inches)	/1- 11.		Type Loc Te	/ Nemarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	<u>0- 7</u>	- 114			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	7-12	2.5/2 9/6 93	1-11-19-1	0	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	12 130+	7.54R 5/8 7			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	12-20+	INTEPACENIS.S	(6)	C	5%
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)		2 Syle 2-5/2 40		C	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)    Histosol (A1)		030/1-1-10			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)    Histosol (A1)					F:
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)    Histosol (A1)					
Histosol (A1)					
Histic Epipedon (A2)    Histic Epipedon (A2)					
Black Histic (A3)	<del>                                    </del>				
Hydrogen Sulfide (A4)  Stratified Layers (A5)  Organic Bodies (A6) (LRR P, T, U)  Stratified Layers (A7) (LRR P, T, U)  Muck Presence (A8) (LRR U)  1 cm Muck (A9) (LRR P, T)  Depleted Dark Surface (F1)  Marl (F10) (LRR U)  Depleted Ochric (F11) (MLRA 151)  Trick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Mucky Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S7)  Depleted Dark Surface (F13) (LRR P, T, U)  Delta Ochric (F17) (MLRA 150A)  Delta Ochric (F17) (MLRA 150A)  Redox Dark Surface (F7)  Redox Dark Surface (F7)  Redox Dark Surface (F7)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Piedmont Floodplain Soils (F19) (LRR O, P, T)  Intro-Manganese Masses (F12) (LRR O, P, T)  Sandy Mucky Mineral (S1) (LRR O, S)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No					
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Depleted Ochric (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present? Yes No					
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B)  5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2)  Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12)  1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)  Depleted Below Dark Surface (A11) Trick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T)  Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) wetland hydrology must be present, unless disturbed or problematic.  Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No				Ī	
5 cm Mucky Mineral (A7) (LRR P, T, U)				6)	
Muck Presence (A8) (LRR U)  I cm Muck (A9) (LRR P, T)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Sandy Mucky Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type:  Depth (inches):  Redox Depressions (F8)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  I coast Prairie Redox (A16) (MLRA 150A)  I lron-Manganese Masses (F12) (LRR O, P, T)  I lron-Manganese Masses (F12) (LRR P, T, U)  Wetland hydrology must be present, unless disturbed or problematic.  Reduced Vertic (F18) (MLRA 150A, 150B)  Piedmont Floodplain Soils (F19) (MLRA 149A)  Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No				·	
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Coast Prairie Redox (A16) (MLRA 150A)  Umbric Surface (F13) (LRR O, P, T)  Sandy Mucky Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches				3)	
Trick Dark Surface (A12)	9				Other (Explain in Remarks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic.  Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic.  Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A)  Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	100				31. 1: . 4
Sandy Mucky Mineral (S1) (LRR O, S)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	The second secon	, ,			
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present? Yes No	27 (4.158)				
Sandy Redox (S5)   Piedmont Floodplain Soils (F19) (MLRA 149A)   Stripped Matrix (S6)   Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)    Restrictive Layer (if observed): Type: Depth (inches):   Hydric Soil Present? Yes No					unicos distalbed of problemade.
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)  Restrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No					
Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No	-				9A, 153C, 153D)
Type: Depth (inches):	Dark Surf	face (S7) (LRR P, S, T, U)			
Depth (inches): Hydric Soil Present? Yes No No	Restrictive La	ayer (if observed):			
Depart (money)	Type:				
Remarks:	Depth (incl	hes):		Hye	dric Soil Present? Yes No
	Remarks:		1		
	7				
		1,0			

Project/Site: FSK Rebuild	City/County: A	A Co		Sampling Date: <u>5/8/24</u>
Applicant/Owner: MDTA			100	Sampling Point: WETT
Investigator(s): EB, TT	Section, Townshi			
	Swale Local relief (conc		er Concau	UC Slope (%): 5
Subregion (LRR or MLRA): MLRA 149 A				
				Mode
Soil Map Unit Name: Udorthents, clayey		1		
Are climatic / hydrologic conditions on the site typical for				
Are Vegetation, Soil, or Hydrology	significantly disturbed? N	Are "Normal Cir	cumstances" pre	esent? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic? N	(If needed, expl	ain any answers	in Remarks.)
SUMMARY OF FINDINGS - Attach site m	nap showing sampling po	int locations	, transects,	important features, etc
Hydrophytic Vegetation Present? Yes	No			
Hydric Soil Present? Yes	No	npled Area		
Wetland Hydrology Present? Yes	No within a V	Vetland?	Yes	No
Remarks:			DI	MIAIB
			PO	MILLE
HYDROLOGY				
Wetland Hydrology Indicators:		Se	condary Indicate	ors (minimum of two required)
Primary Indicators (minimum of one is required; check	k all that apply)		Surface Soil C	
	uatic Fauna (B13)			tated Concave Surface (B8)
	rl Deposits (B15) (LRR U)		Drainage Patte	
	drogen Sulfide Odor (C1)		Moss Trim Line	
	idized Rhizospheres along Living	Roots (C3)	Dry-Season W	ater Table (C2)
Sediment Deposits (B2)	sence of Reduced Iron (C4)		Crayfish Burro	ws (C8)
Drift Deposits (B3)	cent Iron Reduction in Tilled Soils	(C6)	Saturation Visi	ble on Aerial Imagery (C9)
	n Muck Surface (C7)		Geomorphic P	
	ner (Explain in Remarks)		Shallow Aquita	
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral T	
Water-Stained Leaves (B9) Field Observations:			Spriagnum mo	ss (D8) (LRR T, U)
Surface Water Present? Yes No	Depth (inches):			
Water Table Present? Yes No	Depth (inches):			
	Depth (inches):	Wetland Hydr	ology Present?	Yes No
(includes capillary fringe)	and the second of the second o			
Describe Recorded Data (stream gauge, monitoring w	rell, aerial photos, previous inspec	ctions), if availab	le:	
Remarks:				
remarks.				
	0.00	<u> </u>		

/EGETATION (Four Strata) – Use scientific na		Dominant Indicator	Sampling Point:   NET_
Tree Stratum (Plot size: 30 )	% Cover	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
ta .			Total Number of Dominant Species Across All Strata: (B)
456			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7			Prevalence Index worksheet:  Total % Cover of: Multiply by:
850% of total cover:		= Total Cover	OBL species x 1 = FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30 )	5	total cover.	FAC species x 3 = FACU species x 4 =
2. Baccharis hammifolia 3.	10	FAC	UPL species x 5 = (A) (B)
4			Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
6			1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
50% of total cover:		= Total Cover total cover:	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Herb Stratum (Plot size: 15 1. Phragmetes australis	90	FACH	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Toxitodendron radicars			Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4 5			more in diameter at breast height (DBH), regardless of height.
6 7			Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8 9			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11			Woody vine – All woody vines greater than 3.28 ft in height.
12			

= Total Cover

20% of total cover:

Populus alba does not hew an indicator statu More upland conditions. Plot meets dominance

50% of total cover:

Woody Vine Stratum (Plot size:

Hydrophytic Vegetation Present?

COIL				
	-	~	80	

		111	ETT
Sampling	Point:	VV	011

(inches)	Matrix			Feature		- 2		
0-4	Color (moist)	<u>%</u> –	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
4-16	1048 2/2	95 _	1.5/R4/4			m	Sach	
4-10	7.5/25/3	95_	24/23/4	5		m	Dack	
10-16	CLAY FILL		/1					
	1							
							2,	51 5 1111 M M M
	ncentration, D=Deplendicators: (Applica					airis.		PL=Pore Lining, M=Matrix.  for Problematic Hydric Soils <sup>3</sup> :
Histosol (			Polyvalue Bel			RR S. T. I		uck (A9) (LRR O)
	pedon (A2)		Thin Dark Sur					uck (A10) (LRR S)
Black His			Loamy Mucky					ed Vertic (F18) (outside MLRA 150A,B)
Hydroger	Sulfide (A4)		Loamy Gleyed				Piedmo	nt Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		Depleted Matr	ix (F3)			Anoma	lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark S	,	•		,	A 153B)
_	cky Mineral (A7) (LRI		Depleted Dark		, ,			rent Material (TF2)
_	sence (A8) (LRR U)		Redox Depres	,	3)			nallow Dark Surface (TF12)
	ck (A9) (LRR P, T) Below Dark Surface	(Δ11)	Marl (F10) (LF Depleted Och		(MI DA 4	51)	Utner (	Explain in Remarks)
	k Surface (A12)	(ATT)	Iron-Mangane				T) <sup>3</sup> Indica	ators of hydrophytic vegetation and
	airie Redox (A16) (MI	LRA 150A)	Umbric Surfac					and hydrology must be present,
<b>=</b>	ucky Mineral (S1) (LF		Delta Ochric (					ss disturbed or problematic.
Sandy Gl	eyed Matrix (S4)		Reduced Verti	ic (F18) (	MLRA 15	0A, 150B)		
Sandy Re	edox (S5)		Piedmont Floo		, ,	•		
	Matrix (S6)		Anomalous Br	ight Loar	ny Soils (	20) (MLR	A 149A, 153C,	153D)
	ace (S7) (LRR P, S,	T, U)						
	aver (it observed):							
Restrictive La	ayer (ii eacer rea).							
Туре:			-				Uvdria Cail I	Proceed? Voc. No.
Type: Depth (inch							Hydric Soil I	Present? Yes No
Туре:							Hydric Soil I	Present? Yes No
Type: Depth (inch			-				Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch			_				Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No
Type: Depth (inch							Hydric Soil I	Present? Yes No

Project/Site: FSK Rebuild City	y/County: AA Co Sampling Date: 5/8/24
Applicant/Owner: MDTA	State: MD Sampling Point: WETI-W
En TT	ction, Township, Range:
Landform (hillslope, terrace, etc.): Depression Loc	
	cal relier (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): MLRA149A Lat:	Long: Datum: NAD8
Soil Map Unit Name: Udorthents, clayey, very deep, C	
Are climatic / hydrologic conditions on the site typical for this time of year?	,
Are Vegetation, Soil, or Hydrology significantly dis	
Are Vegetation, Soil, or Hydrology naturally proble	ematic?  (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Remarks:	Is the Sampled Area within a Wetland? Yes No
	44.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (L	
Saturation (A3)  Hydrogen Sulfide Odor	
	s along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	
Drift Deposits (B3)	in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in Remains	arks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? YesNo Depth (inches):	
Water Table Present? Yes NoDepth (inches):	14"
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	previous inspections), if available:
Remarks:	



	ribooluic	Dominant Indica	tor Dominance Test worksheet:
e Stratum (Plot size:)		Species? Statu	Number of Dominant Species 2
Populus alba	10		That Are OBL, FACW, or FAC: (A)
opulus deltoides	_0_	FA	Total Number of Dominant
/	7 1		Species Across All Strata: (B)
			Percent of Dominant Species
			That Are OBL, FACW, or FAC: (A/B)
·			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
	15	= Total Cover	OBL species x 1 =
50% of total cover: 7.5	-	2	FACW species x 2 =
ing/Shrub Stratum (Plot size: 30 )	207001	total cover.	FAC species x 3 =
opulus alba.	50	///	FACU species x 4 =
Baccharis haminifolia	20	FAR	UPL species x 5 =
Diospyros virginiana	5	FA	Column Totals: (A) (B)
0			Prevalence Index = B/A =
			1 - Rapid Test for Hydrophytic Vegetation
	-72		3 - Prevalence Index is ≤3.0 <sup>1</sup>
0.0		= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
, 50% of total cover: 37	20% of	total cover: 15	
Stratum (Plot size: /)	10	_	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
oxicodendion radicans	- 25	FAC	Definitions of Four Vegetation Strata:
moelposis preripedunculat		INPI	
philagolites australis	5	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
mitera japonica	20	FAC	height.
Solidago Ap.	3	TAC	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
oacaela sp.	40		Herb – All herbaceous (non-woody) plants, regardless
· · · · · · · · · · · · · · · · · · ·			of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in
			height.
	120	= Total Cover	
50% of total cover:		1	
	ZU% Of	total cover:	
dy Vine Stratum (Plot size: 50 )			
	-		-
			_
			_

Remarks: (If observed, list morphological adaptations below). has no status, assumed UPL; unable to ID kely FACU or UPL species due to location. Hand hydrology + hydric soils.

50% of total cover: \_\_

= Total Cover

20% of total cover:

Present?

Profile Description: (Describe to the dept	n needed to docum	ent the	indicator	or confirr	n the absence of in	dicators.)
Depth Matrix		Feature		3		
(inches) Color (moist) %	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks
0-4 1.542 1/3 98	Syp 4/4	2		m	Sacl_	
4-12 Syz 4/4 95	2:51 25/6	5	_C	M	Sec	
12-16+ 10424/2 95	7 540,5/10	5	C	m	5.C.	
	/1 /	V AI T				
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=I				ains.		Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all L						roblematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Polyvalue Belo		. , .			(A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Sur					(A10) (LRR S)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Mucky Loamy Gleyed			(0)		ertic (F18) <b>(outside MLRA 150A,B)</b> oodplain Soils (F19) <b>(LRR P, S, T)</b>
Stratified Layers (A5)	Depleted Matr		(2)			Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark S		6)		(MLRA 15	
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark				,	Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depres					w Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LF	RU)			Other (Expla	nin in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochi					
Thick Dark Surface (A12)	Iron-Mangane				•	of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)		, , ,		, U)		nydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (I			0A 150R)		sturbed or problematic.
Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Reduced Verti					
Stripped Matrix (S6)			, ,			2)
		iont Loar	TIV SOIIS (	-20) (MLR	A 149A. 153C. 153	
Dark Surface (S7) (LRR P, S, T, U)		ignt Loar	ny Solis (	-20) (MLR	RA 149A, 153C, 153	
		ignt Loar	ny Solis (	-20) (MLR	(A 149A, 153C, 153	31
Dark Surface (S7) (LRR P, S, T, U)		ignt Loar	ny Soils (	-20) (MLR	(A 149A, 153C, 153)	
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):		gnt Loar	ny Solis (	-20) (MLR		ent? Yes No
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type:	_	gnt Loar	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loar	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loar	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):	_	gnt Loar	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loar	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loar	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loar	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):  Type: Depth (inches):		gnt Loan	ny Solis (i	-20) (MLR		

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region
Project/Site: PSK RUDI d City/County: Baltimore City Sampling Date: 5/3/24
Applicant/Owner: Main Sampling Point: Wall Sampling Point:
Investigator(s): D. 5 m.th. K. Mathews Section, Township, Range:
Landform (hillslope, terrace, etc.): Interficial Local relief (concave, convex, none): Landform (hillslope, terrace, etc.):
Subregion (LRR or MLRA): MLRA 149 A Lat: 39.210444 Long: -76.535154 Datum: NADB3
Soil Map Unit Name: Udor Thents, smoothed, 0-3570 Slopes NWI classification: EIUBL
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No No
Are Vegetation, Soil, or Hydrology naturally problematic? <a href="https://doi.org/10.1007/j.com/res/">Are Vegetation, Soil, or Hydrology naturally problematic? <a href="https://doi.org/10.1007/j.com/res/">\text{Are Vegetation</a></a></a></a></a></a></a>
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No Is the Sampled Area within a Wetland?  Yes No
Remarks:
Photo INETI-1 Wettern is small patch of Phragmites between
socky shote areas. EZEMA
HYDROLOGY
Wetland Hydrology Indicators:  Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)  Surface Soil Cracks (B6)
Surface Water (A1)  Aquatic Fauna (B13)  Sparsely Vegetated Concave Surface (B8)
✓ Migh Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)  Presence of Reduced Iron (C4)  Crayfish Burrows (C8)  Crayfish Burrows (C8)
✓ Drift Deposits (B3)  — Recent fron Reduction in Tilled Soils (C6)  — Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Thin Muck Surface (C7)  Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)   FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes // No Depth (inches):
Saturation Present? Yes V No Depth (inches): Wetland Hydrology Present? Yes V No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
become recorded bata (distant gauge, memoring wan, achai photos, providus inspections), il available.
Demodra
* 40% of plot on incoming tide. No recent rain, but wetland
15 hydrologically in fluenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.
is hydrologically influenced by twice daily tidal flowing.

	Absolute Dominant Indicator	Sampling Point: //WET &
Tree Stratum (Plot size: 30)	% Cover Species? Status	
3		Total Number of Dominant
		Species Across All Strata: (B)
k		
)		Percent of Dominant Species
6		That Are OBL, FACW, or FAC: (A/E
7.		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
3		OBL species x 1 =
	= Total Cover	FACW species x 2 =
	20% of total cover:	FAC species x3 =
Sapling/Shrub Stratum (Plot size: 50)		FACU species x 4 =
Nuc		FACU species X 4 =
2.		UPL species x 5 =
3		Column Totals: (A) (B
l		Described to the DA
5.		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
3.		3 - Prevalence Index is ≤3.0¹
	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
	20% of total cover:	
Herb Stratum (Plot size: 15 1. Phragnity australis	100 / FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		Definitions of Four Vegetation Strata:
3.		
		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless of
i		height.
5.		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
		than 5 m. DBH and greater than 5.20 ft (1 m) tail.
J		Herb - All herbaceous (non-woody) plants, regardles
).		of size, and woody plants less than 3.28 ft tall.
0.		Woody vine - All woody vines greater than 3.28 ft in
1		height.
2		
	= Total Cover	
	20% of total cover:	
Woody Vine Stratum (Plot size: 30)	20 % 61 total cover.	
. None		
s		
i.		Hydrophytic
	= Total Cover	Vegetation
50% of total cover:	20% of total cover:	Present? Yes Y No
		•
Remarks: (If observed, list morphological adaptations be	eiOW).	

Sampling Point: [WE] 57

		to the depth		nent the indicator or conf	irm the absence	of Indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	Features  % Type Loc²	Texture	Remarks	
4.7	5 VR 1/1		Color (moist)		1 / James	Fil I work	
D# 181	MAN	100_			311 HP195.	1:00 111111	
					,		
- 4-7-7-			On the state of the				
Im 0.0		-t-Non DM-E	and the state of t	Marked Cond Crains	21 anntinu	PL=Pore Lining, M=Mat	risc
	Indicators: (Applie			=Masked Sand Grains.		for Problematic Hydric	
7		capie to all Li	the second of the second of the				
✓ Histosol				ow Surface (S8) (LRR S,		Muck (A9) (LRR O) Muck (A10) (LRR S)	
	stic (A3)			rface (S9) (LRR S, T, U) / Mineral (F1) (LRR O)		ced Vertic (F18) (outside	MIRA 150A B)
	en Sulfide (A4)		Loamy Gleye		_	nont Floodplain Soils (F19	
	Layers (A5)		Depleted Mat		_	alous Bright Loamy Soils	
	Bodies (A6) (LRR I	P. T. U)	Redox Dark S		_	RA 153B)	·/
	icky Mineral (A7) (L			k Surface (F7)		Parent Material (TF2)	
	esence (A8) (LRR I		Redox Depre			Shallow Dark Surface (TF	12)
	ick (A9) (LRR P, T)		Marl (F10) (L			(Explain in Remarks)	
Deplete	d Below Dark Surface	ce (A11)	Depleted Och	ric (F11) (MLRA 151)			
Thick Da	ark Surface (A12)		Iron-Mangane	ese Masses (F12) (LRR O		cators of hydrophytic veg	
Coast P	rairie Redox (A16) (	MLRA 150A)	Umbric Surfa	ce (F13) (LRR P, T, U)		tland hydrology must be	
	łucky Mineral (S1) (	(LRR O, S)	_	(F17) (MLRA 151)		less disturbed or problem	natic.
	Sleyed Matrix (S4)			tic (F18) (MLRA 150A, 150			
	ledox (S5)			odplain Soils (F19) (MLRA			
	Matrix (S6)		Anomalous B	right Loamy Soils (F20) (M	ILRA 149A, 1530	C, 153D)	
	rface (S7) (LRR P,						
	Layer (if observed)	):					/
Туре:			_			/	
Depth (in	ches):				Hydric Soi	Present? Yes	No
Remarks:				The second second			
/		10					
/	Dal mu	OV					
0	001 1110						

WETLAND DETERM	INATION DATA FOR	M – Atlantic and Gu	Ilf Coastal Plain Region
Project/Site: F5K Repuil	City/C	County: Baltimor-	Caty Sampling Date: 5/3/14
Applicant/Owner: Ma 1A			State: MD Sampling Point: METJ-U
N C H V A	In Halis and		date. Janiping Folia.
Investigator(s): D, Dm, 14		on, Township, Range:	/
Landform (hillslope, terrace, etc.):	Local 20	relief (concave, convex, r	
Subregion (LRR or MLRA): MLKA 149A	Lat: 01.210		-76,535253 Datum: NADE
Soil Map Unit Name: Udor theuts, S	mouthed, 0-55	6 stopes	NWI classification: NA
Are climatic / hydrologic conditions on the site typ	oical for this time of year? Y	es No (I	If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	y significantly distur	bed? / Are "Normal	Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	y naturally problem:	atic? N (If needed, ex	xplain any answers in Remarks.)
SUMMART OF FINDINGS - Attach si	ite map snowing san	ipling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes _	No	Is the Sampled Area	
Hydric Soil Present? Yes _	No V	within a Wetland?	Yes No
Wetland Hydrology Present? Yes _	No V	within a vectarior	TesNo
Remarks:	Unlay	ed about Cox	- 1-1/1PT-1+1-1/1PT
Δ; .	yna	ca pur jur	1-1001 3 1 1001
Proto WETJ-Uf	7.1		
140 10 10 10 01			
HYDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	_ Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	_ Marl Deposits (B15) (LRF	₹ U)	Drainage Patterns (B10)
	_ Hydrogen Sulfide Odor (0		Moss Trim Lines (B16)
Water Marks (B1)	_ Oxidized Rhizospheres a	long Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	_ Presence of Reduced Iro	n (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in	Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_ Thin Muck Surface (C7)		Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remark	(\$)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		er anna sa	Sphagnum moss (D8) (LRR T, U)
Field Observations:	1/2		
Surface Water Present? Yes No _	.//		/
Water Table Present? Yes No_			
Saturation Present? Yes No _ (includes capillary fringe)	✓ Depth (inches):	Wetland Hy	ydrology Present? Yes No
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, pre	vious inspections), if avail	able:
Remarks:		,	
ASOVE MAN line	put ist a 41	Dem Susal	ZME.
A DU VE MARIO ITUIE	10 14/1/1/10	011111	2010

VEGETATION	Four Strata	– Use scientific	names of plants.
	I can andre	, a coc dolor land	Harries of plants.

Sampling Point: 1455-086

2×1	Absolute Dominant Indicat	or Dominance Test worksheet:
Tree Stratum (Plot size: 2D )	% Cover Species? Statu	
1. Ulmus americana	65 X FAL	That Are OBL, FACW, or FAC: (A)
2. Kgelseutosja pagiculata	177	
3. Revinia DELVIDALALIA	18	Total Number of Dominant
	40 14	Species Across All Strata: (B)
4. MOSUS a Ma	5 FAC	4 5 45
5. Prunus seratina	5 FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 55/5 (A/B)
6		That Are OBL, FACW, or FAC: 35/5 (A/B)
7		Prevalence Index worksheet:
7		
8		Total % Cover of: Multiply by:
	103 = Total Cover	OBL species x 1 =
50% of total cover: And	20% of total cover: 5/15	FACW species x 2 =
	20% Of total cover.	FAC species x 3 =
Sapling/Shrub Stratum (Plot size:	t V	
1. Bacchasis natimifalia	P 1 1-40	FACU species x 4 =
2 Lonicisa maachi	3	UPL species x 5 =
3. Robinia DSEIDDACACIA	5 V 110	Column Totals: (A) (B)
	7 = 7	
4. ACK negunda		Prevalence Index = B/A =
5		Hydrophytic Vegetation indicators:
6		
		Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.01
	16 = Total Cover	Problematic Hydrophytic Vegetation (Explain)
50% of total cover: 3,0	20% of total cover: 8	Froblematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:/5')		
	of V The	Indicators of hydric soil and wetland hydrology must
1. Thragmitts avstrais	13 1 MCI	be present, unless disturbed or problematic.
2. Clematis thritiaga	12 Y FAC	Definitions of Four Vegetation Strata:
3. Thalasis as una mater	7 FAC	
4. Toxi codendson sad scarps	13 V FAI	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
TRACODEMONIA NO SCAINS	100	more in diameter at breast height (DBH), regardless of
5. Bobigia Preudoacciera	5 017	height.
6 Castrina C153US Avinavetolia	3 FAG	2, Sapling/Shrub - Woody plants, excluding vines, less
7. Lenicasa je Ponica	7 FA	than 3 in. DBH and greater than 3.28 ft (1 m) tall,
	71/2	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
8		- Herb - All herbaceous (non-woody) plants, regardless
9.		of size, and woody plants less than 3,28 ft tall.
10		
11		Woody vine – All woody vines greater than 3.28 ft in height.
		_ neight.
12		_
11. 4	56 = Total Cover	
50% of total cover:	20% of total cover: 28	
Woody Vine Stratum (Plot size:		
1 Toxica A. JEM Tal' COM	1D Y 641	
a fath and the same		-7
2. Jathenveights Quinquetola	3, 186	2
3. Clematio TURIHOTA	15 Y FACIO	
4. Lonicula japonica.	15 V EA	$\overline{\mathcal{D}}$
5 VILLE ID	7.74	
5. VIII 3//		— Hydrophytic
	= Total Cover	Vegetation
50% of total cover: 10	20% of total cover: 15	Present? Yes No
Remarks: (If observed, list morphological adaptations belo		
( a see a se	· · · · · · · · · · · · · · · · · · ·	

Sampling Point: WETT-UPL

Profile Description: (Describe to the depti	h needed to docur	ment the ind	lcator or confir	m the absence	of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist)	x Features	Type¹ Loc²	Texture	Remarks
0-5 7.5 yr 2.42 100	Color (IIIolac)	70	Type Loc	CSI	Kemans
100 61				1	0.50/11.00/11.00
5-12+ 10K 5/6 100					Rejecty by gas bage
				1	
Type: C=Concentration, D=Depletion, RM=	Destructed Billiothics Bills	Southflooring of Or	and Outline	21	PL=Pore Lining, M≃Matrix.
Hydric Soil Indicators: (Applicable to all L					for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)			(S8) (LRR S, T,		Muck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Su				Muck (A10) (LRR S)
Black Histic (A3)	Loamy Muck				ed Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleye	ed Matrix (F2)	)	Piedm	ont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Ma			_	alous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark				RA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dai		7)	_	arent Material (TF2)
Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T)	Redox Depre				Shallow Dark Surface (TF12) (Explain in Remarks)
Depleted Below Dark Surface (A11)	Mari (F10) (L Depleted Oci		I R A 151\	Other	(Explain in Remarks)
Thick Dark Surface (A12)		. , ,	(F12) (LRR O, F	P. T) <sup>3</sup> India	cators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)					tland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric	(F17) (MLRA	(151)	unl	ess disturbed or problematic.
Sandy Gleyed Matrix (S4)			RA 150A, 150E		
Sandy Redox (S5)	_		(F19) (MLRA 1		
Stripped Matrix (S6)	Anomalous B	Bright Loamy	Soils (F20) (ML	RA 149A, 153C	; 153D)
Dark Surface (S7) (LRR P, S, T, U)  Restrictive Layer (if observed):					
					/
Type:	-			Mardala Call	Present? Yes No
Depth (inches):				Hydric Soil	Present? Yes No No
Remarks:					
1 - 10 ) 100 110	1-10	1			
Considerable	Hash in	DOVI	na		
			/		
3-70			- 14:		
75.47					
	-				

Tidal

Project/Site: ESK Rebuild	City/County: Baitimore Sampling Date: 5/7/29
Applicant/Owner: MDTA	State: MD Sampling Point: 2 WETA
Investigator(s): LAP, ET	Section, Township, Range:
Landform (hillslope, terrace, etc.): deptession	Local relief (concave, convex, none) (ODCOVC Slope (%): 1%
Subregion (IRR or MIRA): LRKS, MIRA 199ALat. 39.2	26665°N Long: -76.5148400°W Datum: NAD 83
Soil Man Unit Name: Udarthents high way A to	65 servent Slapes (Heffmulting FO SS 1
	65 percent Stopes (UcF) WI classification: E2.551
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
Are vegetation, Soil, or Hydrology significantly	disturbed? NO Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pro	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soll Present? Yes No	
Wetland Hydrology Present? Yes No	
boundary in lieu of tida	e, used visual indicators of tidal
boundary in lieu of tida -indicators include: physical i	Many inac charte line
	More all More all
HYDROLOGY	
Wetland Hydrology Indicators:	Coopedant Indicators (validations of the control of
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)
Surface Water (A1)  Aquatic Fauna (B1:	<b></b>
High Water Table (A2)  Mari Deposits (B15	
Saturation (A3) Hydrogen Sulfide C	
	eres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduc	
Drift Deposits (B3)	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	(C7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in R	emarks)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	Noving.
Surface Water Present? Yes No Depth (inches)	WINES
Water Table Present? Yes No Depth (inches)	
Saturation Present? Yes V No Depth (inches) (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	
tidal scrub-shrub well and, abuthin	eg emergent tidal wetland to west
ar	A hatabaco kiver to casi
	·
٠,	
-Fide nearly one foot above normal ev	evalion on this day
	·
•	

10.4261			t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: (() × 2())	% Cover	<u>Species</u>	? Status	Number of Dominant Species
1. N/A				That Are OBL, FACW, or FAC: 3 (A)
2,				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Paradi Paradi 10.13
5				Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
6				
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
				OBL species x 1 =
50% of total cover:	-			FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 10 × 20 1)	20 /6 01	IOIAI COVE	ii	FAC species x 3 =
1. Bachans nahmifolia	8179	٧	*= A.C	FACU species x 4 =
				UPL species x 5 =
2				
3				Column Totals: (A) (B)
4	·····			Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				
7.				1 - Rapid Test for Hydrophytic Vegetation
8.			. ——	2 - Dominance Test is >50%
0	81)9	= Total Co		3 - Prevalence Index is ≤3.0¹
50% of total cover: 40 (	, <u>00 (~</u> ;	= Total Co	ver	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<u>⊿</u> 20% of	total cove	L: <b>//O</b> (≅	
Herb Stratum (Plot size: 10 x 20')	110.6	- 1	-ACL I	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Phragmites austrais	40%	<u> </u>	FACW	be present, unless disturbed or problematic.
2. Baccharis halimifolia	<u> 10 C</u>	<u>_\Y:</u>	<u>FAC</u>	Definitions of Four Vegetation Strata:
3. 1				The Mandaulant while the same
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6.				
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 5 in. DBH and greater triain 5.25 it (1 in) tail.
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
_	<u>50%</u> =	Total Co	ver	100
50% of total cover: <u>25</u>	20% of	total cover	10%	
Woody Vine Stratum (Plot size: 10 × 2-01)	***			
1. N/A				
2.				
3,	<del></del>			
4				
5				Hydrophytic
	=	Total Co	ver	Vegetation
50% of total cover:	20% of t	otal cover	"	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w).			***
Remarks: (If observed, list morphological adaptations below	w).			
Remarks: (If observed, list morphological adaptations below	w).			
Remarks: (If observed, list morphological adaptations below	w).			
Remarks: (If observed, list morphological adaptations below	w).			
Remarks: (If observed, list morphological adaptations below	w).			
Remarks: (If observed, list morphological adaptations below	N).			

Sampling Point: 2WETA

	cription: (Describe	to the depth				or confirm	n the absence	of indicate	ors.)	
Depth _(inches)	Matrix Color (moist)	%	Redox Color (moist)	Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-3"	104R2/2	308	COIOI (IIIOISI)		TYPO		sandylo	dky	INGINAINS	
	104R413	20%					Sanahio	<u>uiii</u>		
2 -11 "	2.546/2	46.6	7.54R46	<del></del> 9				~		
3-16"		<u>40 (, </u>	1.0 10 10	<u> </u>	$\overline{}$	<u> </u>	loumy	<u> amd</u>		
]	2		<u> </u>							
<del>-</del>										<del> </del>
			***************************************				-			
	oncentration, D=Depl					ains.	<sup>2</sup> Location:	PL=Pore L	ining <u>,</u> M=Matri	х.
	Indicators: (Applica	able to all LR			-		_		matic Hydric	Soils³:
Histosol	(A1) Dipedon (A2)		. ☐ Polyvalue Bek . ☐ Thin Dark Sur					luck (A9) <b>(I</b> luck (A10)		
Black Hi			Loamy Mucky							MLRA 150A,B)
=	en Sulfide (A4)		Loamy Gleyed			-,				(LRR P, S, T)
	i Layers (A5)		Depleted Matr				L. Anoma	llous Bright	Loamy Soils (	
	Bodies (A6) (LRR P, icky Mineral (A7) (LR		∐ Redox Dark S ☐ Depleted Dark				1 1 '	RA 153B)	ial (TEO)	
	esence (A8) (LRR U)		Redox Depres					arent Mater hallow Darl	iai (1F2) k Surface (TF1	2)
	ick (A9) (LRR P, T)	•	Marl (F10) (LF		,			Explain in l		<del>-</del>
· = ·	f Below Dark Surface	(A11)	Depleted Ochi	ric (F11) (					,	
· =	ark Surface (A12)	U DA 450A\	Iron-Mangane					_	drophytic vege	
	rairie Redox (A16) (M lucky Mineral (S1) (L		Umbric Surfac Delta Ochric (I			U)			ogy must be pr ed or problema	
_	ileyed Matrix (S4)		Reduced Verti			0A. 150B)		iss distaine	a or problema	uc.
	ledox (S5)		Piedmont Floo	dplain So	ils (F19)	(MLRA 14	9A)			
	Matrix (S6)		∐ Anomalous Br	ight Loam	ıy Soils (F	20) (MLR	A 149A, 153C,	153D)		
	face (S7) (LRR P, S, ayer (if observed):	, T, U)					<u> </u>		<del></del> ,	<del>-</del>
Туре:			_						/	
Depth (inc	ches):						Hydrlc Soil	Present?	Yes	No
Remarks:			W-11/4				_l			- <del></del>
ĺ										
İ										

Project/Site: FSK Rcbuil	ıd	City/County: <u>Batti</u>	more.	_ Sampling Date: 5/7/24
Applicant/Owner: MDTA			State: <u>MD</u>	_ Sampling Point: 2WETB
Investigator(s): LP, ET		Section, Township, F	Range:	
Landform (hillslope, terrace, etc	): depression	Local relief (concave	, convex, none): Conco	VC Slope (%): 17
				Datum: NAO 8
	ents, highway, o to 65			
Are climatic / hydrologic condition	ons on the site typical for this time	e of year? Yes No	(if no. explain in	Remarks.)
	, or Hydrology signifi			
	, or Hydrology natura			
		•		s, important features, etc.
Hydrophytic Vegetation Present Hydric Soll Present? Wetland Hydrology Present? Remarks: photos 9346 Chargent tidal we of fidal elevation	Yes No No No	within a Wet	and? Yes <u>\</u>	oundary in lieu line; precise limit eposition
of has anticare	dense phrag rhize	imes	7,	
HYDROLOGY				
Wetland Hydrology Indicator  Primary Indicators (minimum of the Surface Water (A1)  Wigh Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aeria  Water-Stained Leaves (B9)	f one is required; check all that a Aquatic Faur Marl Deposit Hydrogen Su Oxidized Rhi Presence of Recent Iron F Thin Muck St Other (Explain	na (B13) s (B15) (L <b>RR U)</b> Iffide Odor (C1) zospheres along Living Roo Reduced Iron (C4) Reduction in Tilled Soils (C6	Surface So  Sparsely Vo  Drainage P  Moss Trim  Dry-Seasor  Crayfish Bu  Saturation  Geomorphi  Shallow Aq	Visible on Aerial I <b>m</b> agery (C9) c Position (D2) uitard (D3)
Surface Water Present?	Yes No Depth (ii	nches): <u>VOITIES (tid</u> al)		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (streat		nches): O"	Vetland Hydrology Prese	ent? Yes No No No
Remarks:  * tide hearly one	C foot above norm	nal elevation o	n this day	

Sampling	Point	25	NETR	
Sambillia	Point:	/ 1	AU FOX	

201 radius	Absolute Dominant		Dominance Test worksheet:	_
Tree Stratum (Plot size: 20' radiu)	% Cover Species?		Number of Dominant Species	
1,	<del> </del>		Thet Are OBL, FACW, or FAC: (A)	
2			Total Niverbox of Dansin	
3			Total Number of Dominant Species Across All Strata: (B)	
4			Spesies / terose / tr otrain.	
			Percent of Dominant Species That Are OBL FACW, or FAC: 1	
5			That Are OBL, FACW, or FAC: // (A/E	<b>ا</b> )
6			Prevalence Index worksheet:	
7				
8	<del></del>			
	= Total Cov	er	OBL species x 1 =	
50% of total cover:	20% of total cover:		FACW species x 2 =	
Sapling/Shrub Stratum (Plot size: 20' Yadius )			FAC species x 3 =	i
1			FACU species x 4 =	
			UPL species x 5 =	
2			Column Totals: (A) (B)	
3			(b)	1
4.			Prevalence Index = B/A =	
5			Hydrophytic Vegetation Indicators:	$\dashv$
6			1 - Rapid Test for Hydrophytic Vegetation	
7			2 - Dominance Test is >50%	
8			3 - Prevalence Index is ≤3.0¹	- 1
	= Total Cov			
50% of total cover:			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Herb Stratum (Plot size: 20' (adiUJ )	20% of total cover:		,	
			<sup>1</sup> Indicators of hydric soil and wetland hydrology must	- 1
1. Phragmites australis			be present, unless disturbed or problematic.	
2	·		Definitions of Four Vegetation Strata:	コ
3			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o	_ [
4			more in diameter at breast height (DBH), regardless of	r f
5			height.	İ
6.			Sapling/Shrub – Woody plants, excluding vines, less	
7			than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
			· ·	ſ
8			Herb - All herbaceous (non-woody) plants, regardless	,
9			of size, and woody plants less than 3,28 ft tall.	
10.	· <del></del>		Woody vine - All woody vines greater than 3.28 ft in	
11	·	<del></del>	height.	
12				
	( ()) % = Total Cove	er .		
50% of total cover:50	20% of total cover:	20%		
Woody Vine Stratum (Plot size: 20' radius)	•			
1.				-
2.				
		<del></del>		
3		,		
4		<del></del>		
5			Hydrophytic	
	= Total Cove	er	Vegetation	- 1
50% of total cover:	20% of total cover:		Present? Yes No	
Remarks: (If observed, list morphological adaptations belo	w).			$\dashv$
				- 1

	cription: (Describe	to the depti				or confirm	the absence	of indicate	ors.)	7.0
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature:		Loc <sup>2</sup>	Texture		Remarks	
0-3"	7.54R3/2	100%	, , ,				muck	u	Nemarks	
3-12"	104R 5/2	957	54R416	- <del></del>		M	loamy	cand		
<i>7</i>	10117	_ <del></del> _	9312.10	<u> </u>	—		towny	20114	<del></del> -	<del></del> -
									· · ·	<del></del>
		<del></del>		-						
									<del> </del>	
				·						
1Type: C=C	oncontration D=Dan	lotion DM-E	Ondurand Martine Adi				21 42	DI Danie I	<b>LA BA</b> -LI	
	oncentration, D=Dep Indicators: (Application					iins.			ining, M=Matri matic Hydric t	
☐ Histosol		abio to all E	Polyvalue Be		•	RR S. T. L		Muck (A9) (I	-	ouis .
_	oipedon (A2)		Thin Dark Su					Muck (A10)		
	stic (A3)		Loamy Muck						-18) (outside N	ILRA 150A,B)
	n Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)				ain Solls (F19)	
	d Layers (A5)		Depleted Ma					_	Loamy Soils (I	<sup>=</sup> 20)
	Bodies (A6) (LRR P, ucky Mineral (A7) (LR		Redox Dark	-	-			RA 153B)		
=	esence (A8) (LRR U		Depleted Da					arent Mater	¹ai (1F2) k Surface (TF1:	<sub>2</sub> ,
_	ick (A9) (LRR P, T)	1	Mari (F10) (L	•	,			(Explain in		<sup>2</sup> )
_	d Below Dark Surface	(A11)	Depleted Ocl		(MLRA 15	1)		(=	· ····································	
	ark Surface (A12)		Iron-Mangan				T) <sup>3</sup> Indic	cators of hy	drophytic veget	ation and
	rairie Redox (A16) (M	-				U)			ogy must be pr	
	lucky Mineral (S1) (L	RR O, S)	Delta Ochric					ess disturbe	ed or problemat	ic.
	ileyed Matrix (S4) ledox (S5)		Reduced Ver							
_	Matrix (S6)					-	эд) A 149A, 153C	. 153D)		
	rface (S7) (LRR P, S	, T, U)	, and the second second		, (.	_0, (	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,		
Restrictive L	.ayer (if observed):				-11'					
Туре:			_							
Depth (inc	ches):						Hydric Soil	Present?	Yes	No
Remarks:										
rout n	nasses									
		-								
										ļ
•										ļ

Project/Site: FSK Pscbuild City/C	County: Baltimore. Sampling Date: 5/3/24
Applicant/Owner: MDTA	State: MD Sampling Point: 2+UPLA
Investigator(s): FT, LP Section	
	relief (concave, convex, none): CONCOVE Slope (%): 17
Subregion (LRR or MLRA): LRRS, MLRA 1494 Lat: 39. 2325	1554°N 1000 -76, 5065 712 Datum 114082
Soil Map Unit Name: Udor+nents, highway, O told percent	
•	
Are climatic / hydrologic conditions on the site typical for this time of year? Y	
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problems	
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	In the Convoled Asse
Hydric Soil Present?  Wetland Hydrology Present?  Yes No	is the Sampled Area within a Wetland? Yes NoX
Wetland Hydrology Present? Yes X No	within a weddand? TesNo _/
Remarks: photos - 9329, 9330	
HYDROLOGY	
Wetland Hydrology Indicators:	Coondan/Indicators / Science of Land
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)
Surface Water (A1)  Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B15) (LRI	· · · · · · · · · · · · · · · · ·
Saturation (A3) Hydrogen Sulfide Odor (C	
☐ Water Marks (B1) ☐ Oxidized Rhizospheres a	
Sediment Deposits (B2)  Presence of Reduced Iro	n (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in	Tilled Soils (C6)
Algal Mat or Crust (B4)	Geomorphic Position (D2)
Iron Deposits (B5)  U Other (Explain in Remark Inundation Visible on Aerial Imagery (B7)	
Water-Stained Leaves (B9)	☐ FAC-Neutral Test (D5)☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:	Opinaginali filoss (Do) (ERR 1, 0)
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No.X Depth (inches):	
(Includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
Remarks: Roadside ditch constituted in dense fill mater No hydric soils observed.	Ilal allowing water to pond.
No hydric soils observed.	, , , , , , , , , , , , , ,
	·
	``

Tron Christian (District	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Number of Dominant Species That Are OBL, FACW, or FAC:(A)
3.		Total Number of Dominant Species Across All Strata:(B)
5.		Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
6		
7		Prevalence Index worksheet:
8		Total % Cover of: Multiply by:
	= Total Cover	OBL species x1 =
	20% of total cover:	FACW species x 2 = FAC species x 3 =
Sapling/Shrub Stratum (Plot size:)		FACU species x4 =
1		UPL species x5 =
2	<del></del>	Column Totals: (A) (B)
3		(A)(B)
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
5.		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.01
E00/ -64-4-1	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Herb Stratum (Plot size: 5×5 )	20% of total cover:	
1. Ranunculus sceleratus	805 V 081	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
2		Definitions of Four Vegetation Strata:
3		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4	· — — — — — — — — — — — — — — — — — — —	more in diameter at breast height (DBH), regardless of height.
5		_
6		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7		
8		Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		Woody vine - All woody vines greater than 3.28 ft in
12		height.
	80%= Total Cover	
50% of total cover: 40	20% of total cover: 166	
Woody Vine Stratum (Plot size:)	. Lozo / Or total cover, _   \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
1		
2.		
3.		
4		
5		
	= Total Cover	Hydrophytic Vegetation
50% of total cover:		Present? Yes No
Remarks: (If observed, list morphological adaptations below		
,	•••	
		İ

Profile Des Depth	cription: (Describe Matrix	to the depth		ment the l		or confirm	the absence of indica	tors.)	
(inches)	Color (molst)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	<b>⟨S</b>
0-10"	10 YR 5/3	75%				Sil	TY Clay log graves	refusal	_
	7.54R416	25%		<del>-</del>			J'fill	materia	1
					<del></del>				
=	<del></del>	·							
			•						
<sup>1</sup> Type: C=C	oncentration, D=Dep	eletion, RM=F	Reduced Matrix, M	S=Masked	Sand Gr	ains.	<sup>2</sup> Location: PL=Pore	Lining, M=M	atrix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless othe	rwise note	ed.)		Indicators for Probl		
Histosol			Polyvalue B						
	pipedon (A2)		Thin Dark S				2 cm Muck (A10		
7	istic (A3)		Loamy Mucl			(O)			de MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gley Depleted Ma	•	F2)		Anomalous Brigh		19) (LRR P, S, T)
	: Bodies (A6) (LRR P	. T. U)	Redox Dark		6)		(MLRA 153B)	it Loainy Soi	is (F20)
	ucky Mineral (A7) (LF		Depleted Da				Red Parent Mate	erial (TF2)	
	resence (A8) (L <b>RR</b> U	))	Redox Depr	•	3)		Very Shallow Da		ΓF12)
	uck (A9) (LRR P, T)		☐ Marl (F10) (I	,	<b></b>		U Other (Explain in	Remarks)	
_ :	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Oc Iron-Mangar				T) 31-dicators of b	والمحمولية	4-41 1
	rairie Redox (A16) (N	MLRA 150A)					T) <sup>3</sup> Indicators of hy wetland hydro		
	lucky Mineral (S1) (L		Delta Ochric			, 0,	unless disturb		•
_	Gleyed Matrix (S4)	•	Reduced Ve			0A, 150B)		•	
	Redox (S5)		Piedmont Fk	-	- ,	•	•		
	l Matrix (S6)			Bright Loan	ny Solls (F	F20) (MLRA	A 149A, 153C, 153D)		
	rface (S7) (LRR P, S Layer (if observed):	-	<del>,</del>				<b>I</b>		
Type: 🖺	XOVET				*				
ل المورد Depth (in	16.1		<del></del>				Hydric Soil Present?	Yes	No X
Remarks:	01100)		<del></del>		<del></del>		Tryunc Son Fresents	169	
(Cinains,									
						-			
								٠	
								-	

Project/Site: FSK Rebuild	City/County: Baltimo	ro	Sampling Date: 5/7/24 Sampling Point: 2WETA/B-UPL
Applicant/Owner: HDTP		State: MD	Sampling Point 2WETA/B-UPL
Investigator(s): LP, ET			
Landform (hillslope, terrace, etc.): <u>berm</u>			8X Siam (9()) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Subregion (LRR or MLRA): LRR9, MLRA149A Lat: 39.2	7163 719 °N/	76 - 51 51 5	10°41 510082
Soil Map Unit Name Udorthents, highway, O to 65 per			· · · · · · · · · · · · · · · · · · ·
Are climatic / hydrologic conditions on the site typical for this time of y		-	· /
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? NO (If neede	ed, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point loca	etions, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No	Is the Sampled Are		
Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	within a Wetland?	Yes	No
Remarks: photos: 9348-50	- Angelon -		****
berm between 2 WETA + 2 WETB + Pataps to kne	r		
	•		
			İ
		P.764	
HYDROLOGY			
Wetland Hydrology Indicators:	• 111	Secondary Indi	cators (minimum of two required)
Primary Indicators (minimum of one Is required; check all that apply)			oil Cracks (B6)
Surface Water (A1)	•		egetated Concave Surface (B8)
High Water Table (A2)  High Water Table (A2)  Mari Deposits (B1)			Patterns (B10)
Saturation (A3) Hydrogen Sulfide			Lines (B16)
	eres along Living Roots (C3	· 🗖 ·	n Water Table (C2)
Sediment Deposits (B2)  Presence of Redu	• •		urrows (C8)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Drift Deposits (B3)  Thin Muck Surface	tion in Tilled Soils (C6)		Visible on Aerial Imagery (C9)
Iron Deposits (B5)			ic Position (D2)
Inundation Visible on Aerial Imagery (B7)	(emarks)		quitard (D3)
Water-Stained Leaves (B9)			al Test (D5) moss (D8) (LRR T, U)
Field Observations:		<u> — Эрнаунин</u>	moss (Do) (LKK 1, U)
Surface Water Present? Yes No Depth (inches	):		
	):		
Saturation Present? Yes No Depth (inches		d Hydrology Pres	ent? Yes No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), ir a	avallable:	
Remarks:			

Sampling	Point:2	WEIH	B-TIPE

Tree Stratum (Plot size: 10 x 201	% Cover		nt indicator Status	Dominance Test worksheet:
1. Horus glipa	20%	γ	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2. Ulmus parvifolia	30%	ÿ	FACU	That Are OBL, FACW, or FAC: (A)
	30 E	<del>-</del>	UPL	Total Number of Dominant
		•		Species Across All Strata: (B)
4				Percent of Dominant Species 2/9
5			-	That Are OBL, FACW, or FAC: 19 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8		····		
*	708	= Total Co	over	OBL species x 1 =
50% of total cover: <u>५</u> ८	20% of <u>کا ک</u>	total cove	or: 167	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: (1) x 201				FAC species x 3 =
1. Amorpha fruticosa	5%	<u> </u>	FACU	FACU species x 4 =
2. Rosa muttifiora			FIXLU	UPL species x 5 =
3. Ligustrum Sinence				Column Totals: (A) (B)
4.				
5.				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	25%			3 - Prevalence Index is ≤3.01
17 6	<u>35 %</u>			Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 17.5	<u>/a</u> 20% of	total cove	r: / /8	
Herb Stratum (Plot size: 10 x 2 0 1	4 87 00		T'na	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		<u> N</u>	FAC	be present, unless disturbed or problematic.
2. Rumex crispus	10%	N	FAC ,	Definitions of Four Vegetation Strata:
3. Cinna grundinacca	<u>80%</u>	<u> </u>	FACH	Ten Month plants ovaluding vince 2 le (7.0 e.)
4				Tree – Woody plants, excluding vines, 3 ln. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				Capling (Charle ) Mande and a last a second
7				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				_ , ,
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				of size, and woody plants less than 3.26 it tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12.	TWA 7		<del></del>	
150	<u> 100 6</u> .	= Total Co	ver	
50% of total cover: <u>150</u>	🍒 20% of	total cove	r: <u>207</u>	
Woody Vine Stratum (Plot size: 1() X Z()*				·
1. 11.				
2				
3				
4				
5				11.1
		Total Co	. ——	Hydrophytic Vegetation
50% of total cover:				Present? Yes No X
		total cove	<u>'                                    </u>	
Remarks: (If observed, list morphological adaptations below	N).			

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the indic	cator or confir	n the absence of indicat	ors.)	
Depth	Matrix			x Features				
(inches)	Color (moist)	_ <u>%</u> _	Color (moist)	<u> </u>	ype <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
0-12"	10 YR 3/3	100%				<u>sandy loom</u>		
						·		
						·		
						-		<del></del>
¹Type: C=Cc	ncentration, D=Dep	 detion RM=R	educed Matrix MS	S=Macked Sar	ad Grains	<sup>2</sup> Location: PL=Pore I	ining M-Mot	
	ndicators: (Applic				iu Granis.	Indicators for Proble		
☐ Histosol				•	38) (LRR S, T, 1	_	_	
Present .	ipedon (A2)			rface (S9) (LR		2 cm Muck (A10)		i
Black His				Mineral (F1)		Reduced Vertic (F		MLRA 150A.B)
	n Sulfide (A4)		Loamy Gleye		• ,	Piedmont Floodpl		
Stratified	Layers (A5)		Depleted Mat	rix (F3)		Anomalous Bright	•	
	Bodies (A6) <b>(LRR</b> P		Redox Dark			(MLRA 153B)		
	cky Mineral (A7) (Li			k Surface (F7)	)	Red Parent Mater		
==	esence (A8) (LRR U	J)	Redox Depre			Very Shallow Dar		12)
	ck (A9) (LRR P, T)	- /444	Mari (F10) (L	-	D1 454	Uther (Explain in	Remarks)	
	Below Dark Surfac rk Surface (A12)	<b>ө</b> (АТТ)		ric (F11) <b>(ML</b> I	KA 191) <sup>-</sup> 12) (LRR O, P,	, T) <sup>3</sup> Indicators of hy	drophydla y a a	
	airie Redox (A16) (I	MI RA 150A)		ce (F13) (LRF		wetland hydrol		
	ucky Mineral (S1) (			(F17) <b>(MLRA</b>		unless disturbe		-
	leyed Matrix (S4)	, -,			RA 150A, 150B)		24 OI PIODIOIII	,
_	edox (S5)				(F19) <b>(MLRA 1</b> 4			
	Matrix (S6)		Anomaious B	right Loamy S	oils (F20) (MLF	RA 149A, 153C, 153D)		
	face (S7) (LRR P, \$							
	ayer (if observed)	•						
Type:			<del>_</del>					
Depth (inc	hes):		<del>_</del>			Hydric Soil Present?	Yes	No.X
Remarks:								
							-5	
	•							
								İ

	• • • • • • • • • • • • • • • • • • • •
Project/Site: FSK Bebuild City/	County: Baltimore Sampling Date: 5/7/24
Applicant/Owner: MDTA	State: MD Sampling Point: 2WETC
Investigator(s): LP, ET Sect	ion, Township, Range:
Landform (hillslope, terrace, etc.): Shoreline Loca	
Submotion (I BB or MI BAN / RRS MIAA 1494 Lat 29, 2228	169 ° N Long: -76 -5139756 ° W Datum: NAD 83
Sublegion (LRK of MLRA). Lines / Thousand Lines / Lat. O 1.2270	Datum:
Soil Map Unit Name: Wtor theres, highway, ato 65 percent	
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly distu	rbed? NO Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	atic? N() (If needed, explain any answers In Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sar	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area
Wetland Hydrology Present? Yes No No	within a Wetland? Yes No
Remarks: Photos = 9353-56	
awettand visited at low tide	
-areas surrounding wettands include rock	shoreline with no venetation or soils:
no upland point was	collected
	mak the met offe
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
₩igh Water Table (A2)	· · · · · · · · · · · · · · · · · · ·
Saturation (A3) Hydrogen Sulfide Odor (	· · · · · · · · · · · · · · · · · · ·
Water Marks (B1)  Oxidized Rhizospheres a	
Sediment Deposits (B2)  Presence of Reduced Inc.	
Drift Deposits (B3)	
Algal Mat or Crust (B4)  Thin Muck Surface (C7)	Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remark	
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	☐ Sphagnum moss (D8) (LRR T, U)
Surface Water Present? Yes No Depth (inches): V0	ries (tidal)
Water Table Present? Yes No Depth (inches):	1.
Saturation Present? Yes No Depth (inches):	O ** Wetland Hydrology Present? Yes No
(Includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
remarks.	
* Tide nearly one foot above normal en	essation on dute alone
1 as as assectional cu	comor, at this day
	·

	Absolute	Domina	nt Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: I() X 2() 1			? Status	1	
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2	(A)
2					(4)
				Total Number of Bollinant	
3				.   Species Across Ali Strata:	(B)
4	<del></del>			Percent of Dominant Species 2/2	
5		_		Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
6					(,,,,,
7				Prevalence Index worksheet:	
8					
				OBL species x 1 =	
				FACW species x 2 =	
50% of total cover:	20% of	total cove	er:		
Sapling/Shrub Stratum (Plot size: 10 × 20 1		- 4		FAC species x 3 =	
1. Baccharis hamlimitolia	<u>_ 50°C</u>	<u> </u>	FAC	FACU species x 4 =	
2				UPL species x 5 =	_
3				Column Totals: (A)	(B)
3					_ (-/
4	<del></del>			Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	<del>-</del>
6	<del></del> -			1 - Rapid Test for Hydrophytic Vegetation	
7					
8				2 - Dominance Test is >50%	
				3 - Prevalence Index is ≤3.01	
50% of total cover:	25 <del>- 50 L</del> =	= Total Co	ver	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	n)
50% of total cover:	20% of	total cove	r: 10 £		•
Herb Stratum (Plot size: 10 × 20)				<sup>1</sup> Indicators of hydric soil and wetland hydrology m	t
1. Sparting afternifiora	_ (O &	Y	OBL	be present, unless disturbed or problematic.	iust
2. Baccharis hamifolia	10%	Λ/	FAC	Definitions of Four Vegetation Strata:	
3. Phragmites austrais	100		FACW	belinktions of Four vegetation Strata.	
				Tree - Woody plants, excluding vines, 3 in. (7.6 c	cm) or
4				<ul> <li>more in diameter at breast height (DBH), regardle</li> </ul>	ess of
5				height.	
6				Sapling/Shrub - Woody plants, excluding vines,	lono
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	1055
8.					
0		-		Herb - All herbaceous (non-woody) plants, regard	dless
9				of size, and woody plants less than 3.28 ft tall.	
10				Woody vine - All woody vines greater than 3.28	ft in
11				height.	
12					
	<b>₹03</b>	Total Co	ver		
50% of total cover: 🖳	7 % 20% of t	otal covo	11.9		
Woody Vine Stratum (Plot size: 10 ×20 )	7 49 20 % UT	otal covel	· TO P		
woody vine Stratum (Plot size: 10 x 221 )					
1					
2					
3.					
4					
5					
v				Hydrophytic	
	=		- 1	Vegetation Present? Yes No	
50% of total cover:	20% of to	otal cover	:	Present? Yes No	
Remarks: (If observed, list morphological adaptations b	elow).				
•	•				

Depth (inches)	Matrix			ox Features		OI COMMI	n the absence of in	,		
A	Color (moist)	%	Color (moist)	<u> %</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	<u>s</u>	
<u>0-4"</u>	2.547/2	<u>807</u>	7.54 R46	20%	<u> </u>	<u>H</u>	loamy sand	stone re	fu <u>ca \</u>	
			5							
	oncentration, D=Depl Indicators: (Applica					ins.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis <sup>3</sup> :			
Histosol			☐ Polyvalue B		•	RR S, T, I		-	ic cons .	
	pipedon (A2)		Thin Dark S	urface (S9)	(LRR S,	T, U)	2 cm Muck (	410) (LRR S)		
Black His	stic (A3) n Sulfide (A4)		. Loamy Mucl			<b>O</b> )		rtic (F18) (outsid		
=	l Layers (A5)		Depleted Ma	•	2)			oodplain Soils (F1 Bright Loamy Soil:		
	Bodies (A6) (LRR P,		Redox Dark		5)		(MLRA 15	3B)	2 (1 23)	
	cky Mineral (A7) (LR esence (A8) (LRR U)		Depleted Da					Material (TF2)	_,_,	
_	ck (A9) (LRR P, T)	•	Redox Depr		,			/ Dark Surface (T in in Remarks)	F12)	
Depleted	l Below Dark Surface	(A11)	Depleted Oc	hric (F11) (I				ar Romano,		
	irk Surface (A12)	II DA 450A	iron-Mangar				•	of hydrophytic ve		
	airie Redox (A16) (M ucky Mineral (S1) (L		) Umbric Surfa Delta Ochrid			U)		ydrology must be sturbed or probler		
Sandy G	leyed Matrix (S4)	, -,	Reduced Ve			)A, 150B)	uniosa un	starbed or probler	nauc.	
=	edox (S5)		Piedmont Flo							
	Matrix (S6) face (S7) (LRR P, S,	T. UI	⊥ Anomalous I	Bright Loam	y Soils (F	(MLR	KA 149A, 153C, 153D	))		
Restrictive L	ayer (if observed):	-, -,				<u></u>				
туре: <u>S†</u>	/1.4								/	
	hes). M.						Hydric Soll Prese	nt? Yes	_ No	
Depth (inc	1100).									
Remarks:		atan a	2 marks of	acalima						
Remarks:	d sediment	atop of	rocky sho	oreline						
Remarks:		atop of	e rocky sho	oreline						
lemarks:		atop of	<sup>2</sup> rocky sho	oreline						
lemarks:		atop of	<sup>2</sup> rocky sho	oreline						
lemarks:		atop on	<sup>2</sup> rocky sho	oceline						
lemarks:		atop of	<sup>2</sup> rocky sho	oceline						
emarks:		atop of	² rocky sho	oceline						
lemarks:		atop of	<sup>2</sup> rocky sho	oceline						
lemarks:		atop of	² rocky sho	oceline						
lemarks:		atop of	² rocky sho	oreline						
lemarks:		atop of	<sup>2</sup> rocky sho	oceline						
lemarks:		atop of	<sup>2</sup> rocky sho	oreline						
lemarks:		atop of	<sup>2</sup> rocky sho	oceline						
lemarks:		atop of	<sup>2</sup> rocky sho	oceline						
lemarks:		atop of	<sup>2</sup> rocky sho	oceline						
emarks:		atop of	<sup>2</sup> rocky sho	oreline						
emarks:		atop of	<sup>2</sup> rocky sho	oreline						

Project/Site: FSK Rebuild	City/County: <u>Baltimore</u> Sampling Date: <u>5/7/24</u>
Applicant/Owner: MDTA	State: MD Sampling Point: 2WETD
	Section, Township, Range:
	Local relief (concave, convex, none): MOCOVC Slope (%): 1%
Subregion (LRR or MLRA): LRRS, MLRA 149 A Lat: 39.2	286799°N Long: _76.5117316°W Datum: NAD 83
Soil Map Unit Name: Udorthents, highway, O to 65 pm	cent clanes (u.t.) ANAI classification: PEMS
Are climatic / hydrologic conditions on the site typical for this time of year	
	· · · · · · · · · · · · · · · · · · ·
Are Vegetation, Soil, or Hydrology significantly 0	disturbed? V 6 Are "Normal Circumstances" present? Yes X No No
Are Vegetation, Soil, or Hydrology naturally prof	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes No
Wetland Hydrology Present? Yes X No	763 <u>7 \</u> 110
Remarks: Photos: 9358 - 5,9	
toe of slope wetland at storm drain c	outrain - lively provides primary hydrology;
perened above clay fill	11/
1	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	
High Water Table (A2)  Marl Deposits (B15)	<b>—</b> ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
Saturation (A3) Hydrogen Sulfide Oc	
I □ ·	res along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduce	
☐ Drift Deposits (B3) ☐ Recent Iron Reduction	on in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (	<b>←</b>
│	marks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	▼ FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos.	, previous inspections), if available:
Remarks:	
	·

-1 1s	Absolute Dominant Indica	Sampling Point: ANET Î
Tree Stratum (Plot size: 5' radius)	<u>% Cover Species?</u> Stat	US Number of Descinent Country
1		That Are OBL, FACW, or FAC: (A)
<u></u>		Total Number of Dominant
3	<del>_</del>	Species Across All Strata: (B)
4		
5		— That Are OBL_FAC\N/ or FAC\ '/ \ (A)
6		Prevalence Index worksheet:
7		Total % Cover of:Multiply by:
В		OBL species x 1 =
50% of total payor	= Total Cover 20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 5 (CAIV)	20% of total cover:	FAC species x 3 =
1		FACU species x 4 =
0.		
		The state of the s
	<del> </del>	my majory to against introductions.
7.		
		1=
	= Total Cover	
50% of total cover:	20% of total cover:	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
lerb Stratum (Plot size: 5 Y 0 (1145)		
. Phragmiles australis	857 Y FA	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
A TOXI COGORGION TOGICONS	_416 N FA	Definitions of Four Vegetation Strata:
teensia oryzoides	206 N OBI	_
Lonicera japonica	56 N FAC	
·		height.
		Sapling/Shrub Woody plants, excluding vines, less
		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
•		Herb – All herbaceous (non-woody) plants, regardless
		of size, and woody plants less than 3.28 ft tall.
0		- Woody vine - All woody vines greater than 3.28 ft in
1		height.
2	70 6	-
### / A	Total Cover	,
50% of total cover: (22) loody Vine Stratum (Plot size: 5 / (ad(U))	5%20% of total cover: $25%$	<u>e</u>
		·
		_
		-
		-
		- Hydrophytic
EOO/ of total anyon	= Total Cover	Vegetation Present? Yes No
emarks: (If observed, list morphological adaptations belo	20% of total cover:	_
marks. (ii observed, list morphological adaptations beli	ow).	

•	$\overline{}$	71	1
-	u		

Sampling Point: 2WETD

		to the dept			ator or confirm	the absence of indicators.)
Depth <u>(inches)</u>	Matrix Color (moist)	%	Redo Color (moist)	x Features % Tv	/pe <sup>1</sup> Loc <sup>2</sup>	
0-6"	107241	<u>958</u>	2.5483/4			
10-12 H	2.546/4	90%	104R 5/8			Sandy clay loam
1 7 1	20194	1016	1011/20	<u> 101.                                  </u>	<u> M</u>	loamy sand
, · · · · · · · · · · · · · · · · · · ·			<del></del> .	- — —		
		<u> </u>				
			140	· — —		
¹Type: C=Cc	ncentration, D=Dep	letion DM=	Poducod Matrix MS	- — — — — — — — — — — — — — — — — — — —	od Craina	21 continue Di - Dans Linius Bi-Birtis
	ndicators: (Applic				id Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
☐ Histosol				•	88) (LRR S, T, U	_
	ipedon (A2)			rface (S9) (LR		2 cm Muck (A10) (LRR S)
Black His	etic (A3)		Loamy Muck	y Mineral (F1)		Reduced Vertic (F18) (outside MLRA 150A,B
	n Sulfide (A4)			d Matrix (F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)	T 10	Depleted Mai	` '		Anomalous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P cky Mineral (A7) (Ll		Redox Dark			(MLRA 153B)
	esence (A8) (LRR U		Redox Depre	k Surface (F7)		Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
	ck (A9) (LRR P, T)	,	Marl (F10) (L			Other (Explain in Remarks)
	Below Dark Surfac	e (A11)		nric (F11) (MLF	RA 151)	
_	rk Surface (A12)				12) (LRR O, P,	
	airie Redox (A16) (I			ce (F13) (LRR		wetland hydrology must be present,
	ucky Mineral (S1) (I eyed Matrix (S4)	RR O, S)		(F17) <b>(MLRA</b> 1	151) A 150A, 150B)	unless disturbed or problematic.
Sandy Re					A 150A, 150B) F19) <b>(MLRA 14</b> 9	94)
	Matrix (S6)					A 149A, 153C, 153D)
	ace (S7) <b>(LRR P, S</b>		<del></del>	•	` ',	, , , , ,
Restrictive L	ayer (if observed):					
Туре:						
Depth (inc	nes):					Hydric Soil Present? Yes X No
Remarks:					·	
•						

Project/Site: FSK Rebuild	_ City/County: Baltimore Sampling Date: 5/7/24
Applicant/Owner: MDTA	State: MD Sampling Point: 2UETD-UPL
1	Section, Township, Range:
Landform (hillslope, terrace, etc.): †OC OF SIOPC	Local relief (concave, convex, none): Concave Slope (%): 17.
Subregion (LRR or MLRA): LARS, MURA 149 A Lat: 37.	2286829 Long: -76.5117815°W Datum: NAD 83
Soil Map Unit Name: Udorthents, highway, a to	(a5 present Stages (UCF) NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	
	tly disturbed? No Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally i	problematic? (If needed, explain any answers in Remarks.)
	ng sampling point locations, transects, important features, etc.
Hydric Soil Present? Yes No X	Is the Sampled Area
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No X  No X  No X	within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	
Surface Water (A1)	= 1 - 3 - 5
High Water Table (A2)  Marl Deposits (B)  Seturation (A2)	<b>—</b> • • • • • • • • • • • • • • • • • • •
Saturation (A3) Hydrogen Sulfide  Water Marks (B1) Oxidized Rhizosp	
Sediment Deposits (B2)  Value Walker Walker (B1)  Oxidized Rilizospi  Oxidized Rilizos	oheres along Living Roots (C3) Dry-Season Water Table (C2) uced Iron (C4) Crayfish Burrows (C8)
	uction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	~ · · · · · · · · · · · · · · · · · · ·
Iron Deposits (B5)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Field Observations:	Sphagnum moss (D8) (LRR T, U)
	ing).
Surface Water Present?  Yes No Depth (inche Water Table Present?  Yes No Depth (inche Depth (inche Present))	(5).
Saturation Present? Yes No Depth (inche	ss): Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	itos, previous inspections), if available:
Remarks:	

# **VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: <u>2WETD</u>-UPL

Tree Stratum (Plot size: 5'radius)	Absolute Dominant Indicator	Dominance Test worksheet:
1	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2		
3		.   Species Across All Strata:
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8		OBL species x 1 =
EOW of total account	= Total Cover	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 51 radius)	20% of total cover:	FAC species x 3 =
		FACU species x 4 =
1		UPL species x 5 =
2		Column Totals: (A) (B)
3		
4		- Transpired Hidest Biff
56.		1
6		1 - Rapid Test for Hydrophytic Vegetation
7 8		2 - Dominance Test is >50%
		3 - Prevalence Index is ≤3.0¹
- 50% of total cover	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Herb Stratum (Plot size: 5 YOGIUS)	20% of total cover:	
1. phyagmiles australis	752 Y FACU	Indicators of hydric soil and wetland hydrology must
2 Toxico dendron radicans	59 N FAC	i Pictioniano.
3. Parthenocissus quinquefolia	57 N FAC	Definitions of Four Vegetation Strata:
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of
5		height.
6		Sapling/Shrub - Woody plants, excluding vines, less
7		than 3 in, DBH and greater than 3.28 ft (1 m) tall.
8		Herb - All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		Woody vine - All woody vines greater than 3.28 ft in
11		height.
14.	B12	
#09/ - state 41 9		
Woody Vine Stratum (Plot size: 5'YQQ1US)	20% of total cover: IVO. 1 V	
1		
2		
3		
5.		
<u> </u>		Hydrophytic
50% of total cover:	= Total Cover	Vegetation Present? Yes No No No
Remarks: (If observed, list morphological adaptations below		100 /
The second of th	w).	
		1

	A	a" salta a
Sampling Point:	ZWETD	-Url

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of inc	dicators.)	
Depth	Matrix			ox Features					
(inches)	Color (moist)	<u> %</u> _	Color (moist)	%	_Type <sup>1</sup>	Loc2	<u>Texture</u>	Remarks	
0-6"	104R5/6	- <u>100</u> 5-	. A \ 1 297" i				sandy loam	<u> </u>	
6-12"	5/8/1	<u> 208                                    </u>	10,16218	20%			silty clay	fill materi	al
	•		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_			-		
								<del> </del>	
<del></del>		· — — –							
	-	<del></del> -							
	<b>W</b> ALL	- <del></del> -							
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=R	educed Matrix. M	S=Masked	Sand Gra	ins.	<sup>2</sup> Location: PL=P	ore Lining, M=Matrix.	
	Indicators: (Applic							roblematic Hydric Sc	
☐ Histosof	(A1)		Polyvalue Be	elow Surfac	:e (S8) (LI	RR S. T. L	_		
Histic E	pipedon (A2)		Thin Dark St					A10) (LRR S)	
	istic (A3)		Loamy Muck	y Mineral (	F1) (LRR	O)		rtic (F18) (outside MI	_RA 150A,B)
	en Sulfide (A4)		Loamy Gley	•	-2)			oodplain Soils (F19) (I	
ı <b>=</b>	d Layers (A5)		Depleted Ma					Bright Loamy Soils (F2	20)
i i i i i i i i i i i i i i i i i i i	Bodies (A6) (LRR P	•	Redox Dark		•		(MLRA 15		
	icky Mineral (A7) (LF esence (A8) (LRR U		Depleted Da Redox Depre		. ,			Material (TF2)	
	ick (A9) (LRR P, T)	,	Marl (F10) (L		"			v Dark Surface (TF12) in in Remarks)	'
P	Below Dark Surfac	e (A11)	Depleted Oc		MLRA 15	4)	Other (Expla	in in Remarks)	
h-deed	ark Surface (A12)	,	Iron-Mangan				T) <sup>3</sup> Indicators	of hydrophytic vegetat	tion and
Coast Pi	rairie Redox (A16) (N	/ILRA 150A)	Umbric Surfa					ydrology must be pre	
	lucky Mineral (S1) (L	-RR O, S)	Delta Ochric				unless dis	sturbed or problemation	
_	leyed Matrix (S4)		Reduced Ve						
	ledox (S5)		Piedmont Flo				•		
<del>                                    </del>	Matrix (S6)	T 10	Anomalous E	Bright Loam	ıy Solls (F	20) (MLR.	A 149A, 153C, 153D	<b>)</b> )	
	rface (S7) (LRR P, S _ayer (if observed):						T		
	-ayer (II observeu).								
Type:	has).		_				1		$\times$
Depth (inc	cnes):				- 40		Hydric Soil Prese	ent? Yes	No
Remarks:	a ab		_						
- Matrix	x color assu	imed to	be a resu	thof (	clay -	fill mo	alerial rath	u than	
	reducing c	ondition	73		•				
	,								
									1
·.,									

WET	AND DE	ETERMIN	ATION DATA FOR	tM - Atlan	ntic and Gulf Coastal Plain Region
Project/Site: Key Brid	lge R	'ebul	City/	County: B	1/20/1
Applicant/Owner:	H				State: Sampling Point:
Investigator(s):	D	1	Sect	ion, Townshi	nip, Range:
Landform (hillslope, terrace, e	etc.):	and 6	land Loca	I relief (conc	cave, convex, none): Slope (%):
Subregion (LRR or MLRA):	MURA	149A			Long: -76.534459 Datum: NAD83 (2
Soil Map Unit Name: Udor					The state of the s
		Cartestant com	,	1/	
					No (If no, explain in Remarks.)
Are Vegetation, Soil _	, or h	lydrology	significantly distu	rbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil _				1.4	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDIN	GS - At	tach site	map showing sar	npling po	pint locations, transects, important features, etc.
Hydrophytic Vegetation Pres Hydric Soil Present? Wetland Hydrology Present?		Yes Yes	No No No	Is the San within a W	mpled Area Wetland? Yes No
Remarks:	nd iv	n mid	dle of 1-1	UETE	
7					
HYDROLOGY					
Wetland Hydrology Indicat	ors:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is r	equired; ch	eck all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)		A	Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		^	Marl Deposits (B15) (LR	RU)	Drainage Patterns (B10)
Saturation (A3)			lydrogen Sulfide Odor (		Moss Trim Lines (B16)
Water Marks (B1)			Oxidized Rhizospheres a	_	
Sediment Deposits (B2)			Presence of Reduced Iro		Crayfish Burrows (C8)
Drift Deposits (B3) Algal Mat or Crust (B4)			Recent Iron Reduction in	Tilled Soils	
Iron Deposits (B5)		. —	hin Muck Surface (C7)	(0)	Geomorphic Position (D2)
Inundation Visible on Ae	rial Imager		Other (Explain in Remark	KS)	Shallow Aquitard (D3)
Water-Stained Leaves (		y (67)			FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:					Opinagram moss (bo) (ERR 1, 0)
Surface Water Present?	Yes	No	Depth (inches):		
Water Table Present?			Depth (inches):		
Saturation Present?			Depth (inches):		Wetland Hydrology Present? Yes No
(includes capillary fringe)		14			
Describe Recorded Data (str	eam gauge	, monitoring	g well, aerial photos, pre	vious inspec	ctions), if available:
Remarks:					

/EGETATION (Four Strata)	<ul> <li>Use scientific names of plants.</li> </ul>
--------------------------	---

Sampling Point: P

301	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)  1. Cortal Par Aplusa	% Cover	Species?	Status	Number of Dominant Species
			FACIL	That Are OBL, FACW, or FAC: (A)
2. Juniperus hogymana			FACU	Total Number of Dominant
3.				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:
6				Phonon de la companya
7				Prevalence Index worksheet:
8.		***************************************		Total % Cover of:Multiply by:
	1	= Total Cov	er,	OBL species x 1 =
50% of total cover: <u>5.5</u>	20% of	total cover:	1.4	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30)		/		FAC species x 3 =
1. Robinia Dseudoacacia	40	-	UPL	FACU species x 4 =
2.				UPL species x 5 =
3.				Column Totals: (A) (B)
4.				
5.				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8	40			3 - Prevalence Index is ≤3.0¹
17 1		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 20	20% of	total cover	0	
Herb Stratum (Plot size:)	2		TAAUL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Galina aparine			THU	be present, unless disturbed or problematic.
2. Bromus pp.	60	_/	NA	Definitions of Four Vegetation Strata:
3. Lonicera juponica	8		FACIL	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4 Phraemites bustralis	50	V	FACW	more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				Hart All backgroup (and march ) plants we condide
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine - All woody vines greater than 3.28 ft in height.
			-	l Height.
12	120	= Total Cov		
total total			0.1	
50% of total cover:	20% 01	f total cover		
Woody Vine Stratum (Plot size:)				
1. None				
2				
3				
4.				
5.				Hydrophytic
		= Total Co\	/er	Vegetation
50% of total cover:	20% of	f total cover	:	Present? Yes No No
Remarks: (If observed, list morphological adaptations belo	ow).			
Unable to when Bas	milen	11	how	ores aron it it was
Unable to identify Bro				
FAC or wetter, The dom	-		1001	420 11 11000
the of wetter, The done	man	ee -	TCST.	would not be me!
1-1- (100)				
(2/5=40%)				

Profile Description: (Describe to the de	pur needed to docum	ent the muicato	or comme	II IIIe anzeiic	b of marcators./
Depth Matrix		Features	. 2		
(inches) Color (moist) %	Color (moist)	% Type	Loc²	Texture	Remarks
0-2 10402-2 100				<u></u>	Worganics
2-12 104R4-3 99	10484-1	1 0	W	Sac	
12-14+ SYR 4-4 100				Sac	
				*	
<sup>1</sup> Type: C=Concentration, D=Depletion, RI			Grains.		: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a					s for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Polyvalue Beld				Muck (A9) (LRR O)
Histic Epipedon (A2)		face (S9) (LRR			Muck (A10) (LRR S)
Black Histic (A3) Hydrogen Sulfide (A4)		Mineral (F1) (LI	(R O)		ced Vertic (F18) (outside MLRA 150A,B) mont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Loamy Gleyed Depleted Matr				nalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark S				RA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U					Parent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depres			Very	Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LF	RR U)		Other	r (Explain in Remarks)
Depleted Below Dark Surface (A11)		ric (F11) (MLRA			
Thick Dark Surface (A12)		se Masses (F12			icators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 15		e (F13) (LRR P			etland hydrology must be present, ness disturbed or problematic.
Sandy Mucky Mineral (S1) (LRR O, S Sandy Gleyed Matrix (S4)		F17) (MLRA 151 ic (F18) (MLRA			ness disturbed or problematic.
Sandy Redox (S5)		odplain Soils (F1			
Stripped Matrix (S6)	_	ight Loamy Soils			C, 153D)
Dark Surface (S7) (LRR P, S, T, U)					
Restrictive Layer (if observed):					
Restrictive Layer (if observed): Type:					
				Hydric So	Il Present? Yes No
Туре:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:				Hydric So	Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					Il Present? Yes No
Type:					

1 ...  Waters of the U.S. Data Sheet

\ \ \	4 1 11 1 2 1	1 1 1 1 E	くことののと	1	Feature	reature ID: I WE		ノロイロッシングといれて	1	: .		Cowardin Class: E1UE	日もした
2 90	7				State:	50		Last	Last Flag Number:	nber: DIA		Stream Order: N	N/A
Crew: SUM (	イン				County:	3 all	E. the	Photos:		PU-80/201	Ď	Use Class: 1	
Feature Hydrologic Class and Jurisdiction:	Class a	ınd Jurisd	iction:							-			
Hydrologic Class	USA	<b>USACE Jurisdiction</b>	liction	:				Juris	dictional	Jurisdictional Rationale			
V Tidal	Ţ.	TNW		MNL	M	I	Impoundment of:	t of:	_	Tributary	ry	Other	Other Waters
Perennial	Y	Ampoundment	ıt	Tidal		TNW				Relatively Permanent	ermanent	Relatively	Relatively Permanent
Intermittent	$\bigvee$ Tr	Tributary		Interstate	state	Tributary	tary		Re	Relatively Permanent Notes:	anent Note		
Ephemeral	Ď	Other Waters	S	V Navi	Navigable					•		•	
Other													
Hydrologic Connectivity	ivity	Upstream:		autsial	Š	Downstream:		outside SA	オな	Adjacent/Abutting:	Abutting:	\ \ !	
Feature Description: (check all that apply)	criptio	n: (check	all that a	(k)dd							!		
S	tape (w	Shape (with respect to OHW)	t to OH	(M)		_		Substrate	ate	:	Veget	Vegetation Cover Type (VRSS)	ne (MRSS)
✓ Natural Channel Shape	Shape		Width:	504		V Silts	ts	1//Sa	Sands	Muck	RB		/22-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
Artificial (man-made)	nade)		Depth:	0 - 50	子子	2	Cobbles	7	Gravel	Other:		drade abase	2
Manipulated (man-altered)	an-alter		Bank Ero	Bank Erosion/stability:	lity:	Be	Bedrock	ŭ	Concrete		ر م		)
Other:			8	Stable		Side slope:	ope:			<u>\</u>	LB:	Carlo do Laire	<u> </u>
Notes:							-				^ 		<u>}</u>
Weather/Precipitation Conditions:	cipitat	ion Condi	tions:										
	Inc	Inches of	weather;	station Tan	yard spine	weather station Tanyard spings - KHDGLENB25		onthly D	rought C	Monthly Drought Condition	ş	State: MD	
	Rain	Rain Within						NCDCI	NCDC Divisional PDSI	PDSI	j.	Division: Upper Southern	Southern
During Field Visit	Ljas	Last Week	https://r	<b>www.nce</b>	i.noaa.g	ov/access/i	monitoring	/climate	-at-a-gla	nce/division	1/mappin	https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/divisional/mapping Month: Town	Year: 2024
✓ No rain	>	0-0.5								X			
Light rain		0.5-1	9-	-5	4	23	-2	-1	0	1 2	3	4	5 6
Heavy Rain		>1	Ser	Severe Drought	ght	Moderate	Moderate Drought		Normal	Mod	Moderately Wet		Severely Wet
Non-tidal tributary has: (check all that apply)	butary	has: (che	ck all tha	t apply)									
Bed and Banks							Ordinary High Water Mark	High We	iter Mar	<u> </u>		:	
Yes		Clear, natural line impressed on the bank	ural line	impressed	on the b	ank	Sedimer	Sediment deposition	ion		Sediment sorting	ting	
No		Changes in the character of	n the cha	racter of	soil		Water staining	aining		Š	Scour		
	·	Shelving					Presence	of flood	Presence of flood litter/debris		bserved/pr	Observed/predicted flow events	nts
		Vegetation matted down, bent, or absent	n matted	down, be	nt, or abso	ent	Destruct	ion of ter	Destruction of terrestrial veg.		brupt chan	Abrupt change in plant community	aunity
	•	Leaf litter disturbed	disturbe	þ			Presence	Presence of wrack line	k line		Other:		,
Tidal tributary has: (check all that apply)	ry has:	: (check al	I that ap	(A)									
A prod	High Tide Line	e Line			Mean H	ligh Water	Mean High Water Mark indicated by:	cated by			hemical C	Chemical Characteristics	
Oil or scum line along shore objects	along s	hore objec	ts	7	Survey	Survey to available datum	e datum		/1	Water is clear	ı.		
Fine shell or debris deposits (foreshore)	ris dep	osits (fores	hore)		Physica	Physical markings			<b>S</b>	Water is discolored	colored		
/Physical markings/characteristics	gs/chara	acteristics			] Vegeta	tion lines/c	Vegetation lines/changes in types	/bes		Oily film	;		
V Idal gauges										Other:			
Notes:					i	:							

Waters of the U.S. Data Sheet

Project: MOTA	+ Inner Lao	id Kills	yining.		Action of the C		Feature I	D: 1	MA M	/	Stre	am Orde	r: R41	101
Date: 012012	<b>**</b>			State:	MD		Last Flag	Num	ber:	3. 1 Tar. 1.		Class: {	<del>4. D I</del> I	امر
Crew: SW/	EH	a de la light	10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	County:	Bute	الما	Photos:				on 3/		566-6	7
Feature Hydrologic	Class and Jurise	diction:				ل								
Hydrologic Class	Jurisdicti	on					R	eason				· · ·		
Tidal	TNW (a)(1)		TN	TNW Impoundment of: / Tributary Other Waters										
✓ Perennial	Impoundme		Tida		TNW (a)			V	Relativo	ely Pern	nanent	Rela	tively Per	manent
Intermittent	√ Tributary (a			state	Impound		(2)			ant Nex		Sign	ificant Ne	exus
Ephemeral	Other Water	rs(a)(5)	Navi	igable	Tributary	<del></del>	·	Sim	ilarly S	ituated \	Waters:	Similarly	Situated	Waters:
Other					Adj. Wet	tland (a)(	4)	}					1.50 · ·	
Hydrologic Connect	Hydrologic Connectivity Upstream: PMINEY Downstream: INC Adjacent/Abutting: IWETA, AWB													
Feature Des	cription: <i>(check</i>	all that a	pply)											
	ape (with respe	ct to OH	W)			···	Substrate				Vegetat	ion Cove	r Type (	MBSS)
Artificial (man-made) Depth:   - 8   Cobbles Gravel Other:								201300						
Manipulated (ma	ın-altered)	Bank Ero			Bedro		Сопсте							
	Notes: Gainen on either side of culvert ging under 1895, 510w flow from culvert													
Notes: Gainen of	n either sid	e of ci	n vert	7 ing ur	Ser 1095	, 5) OM	flow trov	h eu	west			U		
Weather/Precipitation Conditions:														
weather/Pre	cipitation Cond	Weather Technical Conditions.												
weather/Pre	Inches of	mons:						ht Co	ndition	. <u> </u>		State: \	ND	<u> </u>
	Inches of Rain Within					Mo	onthly Droug	onal l	PDSI			ivision: \	Janey Sout	hem
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#### HABITAT ASSESSMENT FIELD DATA SHEET—LOW GRADIENT STREAMS (FRONT)

STREAM NAME   WA	LOCATION OUST OF DOCK HLD 1695
STATION # RIVERMILE	STREAM CLASS \
LAT 39.20900 LONG-76.541035	RIVER BASIN Pataps (0) battimore thator
STORET #	AGENCY
INVESTIGATORS HT TT	
FORM COMPLETED BY	DATE SIV M REASON FOR SURVEY TIME AM M FSK REDVILL

	Habitat		Condition	Category			
	Parameter	Optimal	Suboptimal	Marginal	Poor		
	1. Epifaunal Substrate/ Available Cover	Greater than 50% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	30-50% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	10-30% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 10% stable habitat; lack of habitat is obvious; substrate unstable or lacking.  Substrate Clay Sund w Fine Sed meet, lacking was a lacking with the lacking was a lacking with the lacking was a lacking with the lacking was a lacking with the lacking was a lacking with the lacking was a lacking with the lacking was a lacking was		
each	SCORE O	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 (2) 1 0		
l in sampling r	2. Pool Substrate Characterization	Mixture of substrate materials, with gravel and firm sand prevalent; root mats and submerged vegetation common.	Mixture of soft sand, mud, or clay; mud may be dominant; some root mats and submerged vegetation present.	All mud or clay or sand bottom; little or no root mat; no submerged vegetation. To the heart	Hard-pan clay or bedrock, no root mat or vegetation.		
Parameters to be evaluated in sampling reach	SCORE 7	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
	3. Pool Variability	Even mix of large- shallow, large-deep, small-shallow, small-deep pools present.	Majority of pools large- deep; very few shallow.	Shallow pools much more prevalent than deep pools.	Majority of pools small- shallow or pools absent. Small pool at		
mete	SCORE O	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 (2) 1 0		
Paramete	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than <20% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 20-50% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 50-80% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 80% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.		
	SCORE O	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 (2)1 0		
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.		
	SCORE J	20 19 18 17 16	15 14 13 (12) 11	10 9 8 7 6	5 4 3 2 1 0		

#### HABITAT ASSESSMENT FIELD DATA SHEET—LOW GRADIENT STREAMS (BACK)

Habitat		Condition	Category	
Parameter	Optimal	Suboptimal	Marginal	Poor
6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted Instream habitat greatly altered or removed entirely.
SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Channel Sinuosity	The bends in the stream increase the stream length 3 to 4 times longer than if it was in a straight line. (Note - channel braiding is considered normal in coastal plains and other low-lying areas. This parameter is not easily rated in these areas.)	The bends in the stream increase the stream length 1 to 2 times longer than if it was in a straight line.	The bends in the stream increase the stream length 1 to 2 times longer than if it was in a straight line.	Channel straight; waterway has been channelized for a long distance.
SCORE 2	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability (score each bank)	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods. Stabilized where graves,	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.
SCORE 5 (LB)	Left Bank 10 9	8 7 6	4 3	2 1 0
SCORE $5$ (RB)	Right Bank 10 9	8 7 6	5) 4 3	2 1 0
9. Vegetative Protection (score each bank)  Note: determine left or right side by facing downstream.	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0
SCORE (RB)	Right Bank 10 9	8 7 6	5 4 8	2 1 0
10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12- 18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6- 12 meters; human activities have impacted zone a great deal.	Width of riparian zone < meters: little or no riparian vegetation due to human activities.
SCORE $2$ (LB)	Left Bank 10 9	8 7 6	5 4 3	0 1 0
SCORE RB)	Right Bank 10 9	8 7 6	5 4 3	(2) 1 0

Total Score 5

Waters of the U.S. Data Sheet

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	Other						Adj. We	tland (a)	(4)	:	-		ì	-	,	
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	Manipulated (ma	n-alte	red)	Bank Ero	sion/stab	ility:	Bedr	ock	Concre			i		•		
	Other:			Stal	ole	•	Side slop	e:	1 21 [	331	<b>V</b> ≤4:1	I	RB: HC	مريد و و	- ·	
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	No rain Light rain Heavy Rain Non-tidal trik Bed and Banks	In Rain Las	ches of n Within st Week 0-0.5 0.5-1 >1 y has: (che	https://6 Sev	-5 vere Drou t apply; i	ei.noaa.gov	-3 Moderate I	onitoring  -2  Drought  & list pl  rdinary	onthly Droug NCDC Divis  c/climate-at1 0  Norm  hoto #)	ional a-gla nal	PDSI nce/divi	sional/1 2 Modera	mapping]	ivision: \ Month: \ 4 S	opper Swith	r: 2024
	rzing Field Visit No rain Light rain Heavy Rain Non-tidal trik Bed and Banks	In Rain Las	ches of n Within st Week 0-0.5 0.5-1 >1 v has: (che	https:// -6 Sev eck all that tural line in the cha	-5 vere Drou t apply; i	ei.noaa.gov	-3 Moderate I	onitoring -2 Drought  & list pl rdinary Sedimer Water st	onthly Droug NCDC Divis c/climate-at1 0 Norm hoto #) High Water at deposition taining	ional a-gla nal Mari	PDSI nce/divi	sional/i 2 Modera	mapping  3 tely Wet  ment sorti	ivision: \ Month: \ 4 S	opper Swift San Yea 5 severely V	r: 2024
	No rain Light rain Heavy Rain Non-tidal trik Bed and Banks	In Rain Las	ches of n Within st Week  0-0.5 0.5-1 >1  v has: (che  Clear, na Changes Shelving	https:// -6 Sev eck all that tural line in the cha	-5 /ere Drou t apply; i	ei.noaa.gov	//access/m -3 Moderate I tos for each O	onitoring  -2 Drought  **List pl rdinary  Sedimer  Water st  Presence	onthly Droug NCDC Divis  c/climate-at1 0 Non hoto #)  High Water nt deposition taining e of flood litte	ional a-gla nal Mari	PDSI nce/divi	Sedin Scou	mapping  3 tely Wet  ment sorti	ivision: \ Month: \ 4	oppe Switch  John Yea  5  Jeverely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trik Bed and Banks	In Rain Las	ches of n Within st Week 0-0.5 0.5-1 >1 v has: (che Clear, na Changes Shelving Vegetation	https://6 Seveck all that tural line in the cha	-5 vere Drou  t apply; i impressed racter of down, be	ei.noaa.gov	//access/m -3 Moderate I tos for each O	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Destruct	nchly Droug NCDC Divis  /climate-at1 0 Non  hoto #)  High Water  at deposition taining e of flood litter tion of terrest	ional a-gla nal mal	PDSI nce/divi	2 Modera  Sedii Scou Obse Abru	mapping  3 tely Wet  ment sortiur  raved/predupt change	ivision: \ Month: \ 4	oppe Switch  John Yea  5  Jeverely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trik Bed and Banks Yes No	In Raid Las	ches of n Within st Week  0-0.5 0.5-1 >1 v has: (che Clear, na Changes Shelving Vegetatio Leaf litte	https://6 Seveck all than tural line in the chance on matted or disturbe	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov  -4  ght  nclude phot  d on the band  soil  ent, or absent	/access/management // Access/management // Access/m	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Destruct	onthly Droug NCDC Divis  c/climate-at1 0 Non  hoto #)  High Water  at deposition taining e of flood litted tion of terreste e of wrack lin	ional a-gla nal mal	PDSI nce/divi	Sedin Scou	mapping  3 tely Wet  ment sortiur  raved/predupt change	ivision: \ Month: \ 4	oppe Switch  John Yea  5  Jeverely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trib Bed and Banks Yes No	In Rain Las	ches of n Within st Week 0-0.5 0.5-1 >1 y has: (che Clear, na Changes Shelving Vegetatic Leaf litte s: (check a	https://6 Seveck all than tural line in the chance on matted or disturbe	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov	/access/m -3 Moderate I tos for each O k	onitoring -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Presence  ist photo	northly Droug NCDC Divis c/climate-at1 0 Northete hoto #) High Water at deposition taining e of flood litte tion of terrests e of wrack lin #)	ional a-gla nal mal	PDSI nce/divi	Sedin Scoul Obse Abru	mapping  3 tely Wet  ment sortius erved/predupt change	ivision: \ Month: \ 4	yea Yea Severely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trik Bed and Banks Yes No Tidal tributar	In Rain Las outary	ches of n Within st Week  0-0.5 0.5-1 >1  V has: (che  Clear, na Changes Shelving Vegetatic Leaf litte s: (check a	https://  -6 Seveck all that tural line in the cha	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov  -4  ght  nclude phot  don the band soil  nt, or absent  de photos for Mean Hig	/access/m -3 Moderate I fos for each 0 k	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Destruct  Presence  ist photo  Mark indi	northly Droug NCDC Divis c/climate-at1 0 Northete hoto #) High Water at deposition taining e of flood litte tion of terrests e of wrack lin #)	ional a-gla nal mal	PDSI nce/divi	Sedin Scou Obse Abru Othe	mapping  3 tely Wet  ment sortiur  raved/predupt change	ivision: \ Month: \ 4	yea Yea Severely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trik Bed and Banks Yes No  Tidal tributar His	In Rain Las	ches of n Within st Week  0-0.5 0.5-1 >1 v has: (che Clear, na Changes Shelving Vegetatic Leaf litte s: (check a de Line shore obje	https://6 Seveck all that tural line in the chain matted or disturbed all that applicates	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov  -4  ght  nclude phot  d on the band soil  nt, or absent  de photos fo  Mean Hig	/access/m.  -3  Moderate I  os for each  k  t  or each & I  ch Water N  o available	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Destruct  Presence  ist photo  Mark indi	northly Droug NCDC Divis c/climate-at1 0 Northete hoto #) High Water at deposition taining e of flood litte tion of terrests e of wrack lin #)	ional a-gla nal mal	PDSI nce/divi	Sedin Scou Obse Abru Othe	mapping  3 tely Wet  ment sortiur erved/predupt change r:	ivision: \ Month: \ 4	yea Yea Severely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trib Bed and Banks Yes No  Tidal tributan His Oil or scum line a	outary  y has gh Tie along is der	ches of n Within st Week  0-0.5 0.5-1 >1 y has: (che Clear, na Changes Shelving Vegetation Leaf litte s: (check a de Line shore objectosits (fore	https://6 Seveck all that tural line in the char on matted or disturbed all that applicates shore)	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov  -4  ght  nclude phot  d on the ban  soil  nt, or absent  Mean Hig  Survey to  Physical	/access/m.  -3  Moderate I  tos for each  t  t  t  T  T  T  T  T  T  T  T  T  T	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Presence  Presence  ist photo  Aark indidatum	nchly Droug NCDC Divis  c/climate-at1 0 Non  hoto #)  High Water  at deposition taining e of flood litter tion of terrest e of wrack lin #) icated by:	ional a-gla nal mal	PDSI nce/divi 1 1 wris eg. Water is	Sedin Scoul Obse Abru Othe Chers clear s discold	mapping  3 tely Wet  ment sortiur erved/predupt change r:	ivision: \ Month: \ 4	yea Yea Severely V	6 Vet
	No rain Light rain Heavy Rain Non-tidal trib Bed and Banks Yes No  Tidal tributar His Oil or scum line a Fine shell or debr	outary  y has gh Tie along is der	ches of n Within st Week  0-0.5 0.5-1 >1 y has: (che Clear, na Changes Shelving Vegetation Leaf litte s: (check a de Line shore objectosits (fore	https://6 Seveck all that tural line in the char on matted or disturbed all that applicates shore)	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov  -4  ght  nclude phot  d on the ban  soil  nt, or absent  Mean Hig  Survey to  Physical	/access/m.  -3  Moderate I  os for each  k  t  or each & I  ch Water N  o available	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Presence  Presence  ist photo  Aark indidatum	nchly Droug NCDC Divis  c/climate-at1 0 Non  hoto #)  High Water  at deposition taining e of flood litter tion of terrest e of wrack lin #) icated by:	ional a-gla nal mal	PDSI nce/divi 1 1 write and the second secon	Sedin Scoul Obse Abru Othe Chers clear s discold	mapping  3 tely Wet  ment sortiur erved/predupt change r:	ivision: \ Month: \ 4	yea Yea Severely V	6 Vet
V	No rain Light rain Heavy Rain Non-tidal trib Bed and Banks Yes No  Tidal tributar His Oil or scum line a Fine shell or debr Physical marking	outary  y has gh Tie along is der	ches of n Within st Week  0-0.5 0.5-1 >1 y has: (che Clear, na Changes Shelving Vegetation Leaf litte s: (check a de Line shore objectosits (fore	https://6 Seveck all that tural line in the char on matted or disturbed all that applicates shore)	-5 vere Drou t apply; i. impressed racter of down, be	ei.noaa.gov  -4  ght  nclude phot  d on the ban  soil  nt, or absent  Mean Hig  Survey to  Physical	/access/m.  -3  Moderate I  tos for each  t  t  t  T  T  T  T  T  T  T  T  T  T	onitoring  -2 Drought  & list pl  rdinary  Sedimer  Water st  Presence  Presence  Presence  ist photo  Aark indidatum	nchly Droug NCDC Divis  c/climate-at1 0 Non  hoto #)  High Water  at deposition taining e of flood litter tion of terrest e of wrack lin #) icated by:	ional a-gla nal mal	PDSI nce/divi 1 1 wris eg. Water is	Sedin Scoul Obse Abru Othe Chers clear s discold	mapping  3 tely Wet  ment sortiur erved/predupt change r:	ivision: \ Month: \ 4	yea Yea Severely V	6 Vet

Modified Environmental Protection Agency Rapid Bioassessment Protocol (EPA RBP) Habitat Assessment Field Data Sheet (Low Gradient Ephemeral/Intermittent Streams)

Station ID/ Stream Name	1613		LAT (DD)	39.2080	774							
Reach Length (m)	57	Date 5/16/24	LONG (DD)	-76.541								
HABITAT	CATEGORY											
PARAMETER	Optimal	Sub-optimal	Mar	ginal	Poor							
1. SUBSTRATE/ DIVERSITY AVAILBLE COVER FOR AMPHIBIANS CRAYFISH	Greater than 50% of substrate consisting of mix of snags, tree roots or other stable habitat providing cover for amphibians and aquatic or terrestrial invertebrates. LWD in moderate to advanced stage of decay and within- active channel; Substrate roughness capable of trapping lots of organic matter. If moss covered, rate high.	30 to 50% cover and mix of diverse stable habitat; well suited for full cover potential; adequate habitat for maintenance of populations; presence of additional LWD in the form of new fall. Substrate roughness still capable of trapping organic matter.	habitat availa desirable; sub disturbed or n density and/o early decay si	x of stable cover; bility less than ostrate frequently emoved. LWD low in r may be new fall or in tage. Some areas apping organic matter. absent, score	Less than 10% stable cover; lack of habitat is obvious; substrate unstable or lacking. Few areas suitable for trappil organic matter.  Clay San J  Uf The ince							
SCORE:	Rate in Cl	nannel and Toe	of Ba	nks								
•	20 19 18 17 16	15 14 13 12 11	10 9	8 7 6	5 4 3 2 1 0							
2. POOL SUBSTRATE CHARACTER- IZATION In dry channels, pool areas should still be observable	Mixture of substrate materials, with gravel and firm sand prevalent; root mats and submerged (or remnant) aquatic vegetation are common.	Mixture of soft sand, mud, or clay; mud may be dominant; some root mats and submerged (or remnant) vegetation are present.		y or sand bottom; t mat; no submerged vegetation.	Hard-pan clay or bedroc no root mat or vegetation							
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9	8 7 6	5 4 3 2 1 0							
3. CHANNEL ALTERATION SCORE:	Channelization or dredging absent of minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging (>than past 20 years) may be present, but no evidence of recent channelization.	embankments present on bo	n may be extensive; s or shoring structures oth banks; 40 to 80% of ach channelized and	Banks shored with gabic or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.							
	20 19 18 17 16	15 14 13 12 11	10 9	8 7 6	5 4 3 2 1 0							
4. SEDIMENT DEPOSITION SCORE:	Little or no enlargement of "islands" or point bars and less than 20% of the bottom affected by fine sediment deposition. Leaf packs and woody debris with minimal silt covering.	Some new increase in bar formation, mostly from sand, or fine sediment; 20 to 50% of the bottom is affected; slight deposition in pools. Leaf packs with moderate silt covering.	sand, or fine s new bars; 50 affected; sedii obstructions, o bends; moder	position of new sediment on old and to 80% of the bottom ment deposits at constrictions, and rate deposition of pools af packs with heavier	Heavy deposits of fine material, increased bar development; more than 80% of the bottom changing frequently; pools almost absent due to substantial sediment deposition							
	20 19 18 17 16	15 14 13 12 11	10 9	8 7 6	5 4 3 2 1 0							
5. CHANNEL SINUOSITY SCORE:	The bends in the stream increase the stream length 3 to 4 times longer than if it was in a straight line.	The bends in the stream increase the stream length 2 to 3 times longer than if it was in a straight line.	the stream ler	he stream increase ngth up to 2 times it was in a straight	Channel is straight; waterway has been channelized for a long distance.							
	20 19 18 17 16	15 14 13 12 11	10 9	8 7 6	5 4 3 2 1 0							

Appendix 1: Modified Environmental Protection Agency Rapid Bioassessment Protocol (EPA RBP)
Habitat Assessment Field Data Sheet (Low Gradient Ephemeral/Intermittent Streams)

	Optin	nal		Sul	b-optir	mal	Ma	rginal			Poor		
6. BANK STABILITY (score each bank) *determine left/ right by facing downstream	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems (<5% of bank affected).			5-30% of bank in reach has areas of				Moderately unstable; 30-60% of bank in reach has areas of erosion; high potential during floods.			Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.		
LEFT: Ψ	10	9		8	7	6	5	4	3	2	1	0	
RIGHT: 6	10	9	MINE DE	8	7	(6)	5	4	3	2	1	0	
7. BANK VEGETATIVE PROTECTION SCORE:	More than 90% bank surfaces riparian zones vegetation includerstory shi woody plants (ferns, mosses disruption thromowing minimalmost all planto grow natura	and immedia covered by luding trees, rubs, and no (herbs, grass); vegetative gugh grazing all or not evints allowed [	ate ar cl re no no no no no no no no no no no no no	70-90% of the streambank surfaces are covered by vegetation, but one class of plants is not well represented; disruption evident, but not affecting plant growth potential to extent; more than one-half of the potential plant stubble height remaining.						ion streambank surfaces are covered by vegetation; disruption of streambank vegetation very high; vegetation has been removed to 2 inche or less in average stubbl height.			
LEFT:	10	9		8	(7)	6	5	4	3	2	1	0	
RIGHT:	10	9		8	(7)	6	5	4	3	2	1	0	
B. WIDTH OF UNDISTURBED VEG. ZONE (undisturbed veg. Is trees, shrubs, and non- woody macro- phytes)	Width of undis tative zone is human activitie roadbeds, clea crops) have no zone.	>18 meters; es (parking larcuts, lawns	ots, m		an activi	en 12 and 18 ties have only his zone.	Zone width meters; hun impacted th	nan activi	ties have	6 meter	rs; little d ed veget	s less than or no un- ation due activities.	
LEFT: 3	10	9		8	7	6	5	4	3	2	1	0	
D	10	9		8	7	6	5	4	(3)	2	1	0	
	TOTAL:  Max Pool Depth (if water is present  Average Channel Width (Toe of Ba						Total fro	m front	29 + Total	from ba	ck 36	7=61	
RIGHT: 3			-			A") <u>15                                    </u>			ge= Total Scor				
RIGHT: 3 TOTAL: (max=160)	Average Cha	nnel Width	(Toe of	Banks) L.									
RIGHT: 3 TOTAL:  (max=160)  Average Width  What is the	Average Cha Intact Rip Ve	getative Zogetation ty	(Toe of one (m)	Banks) 1:  Left  reach?	2	m Estimated aç	Score Pe	Right	ge= Total Scor	m 5-	25 yrs _		
RIGHT: 3 TOTAL:  (max=160)  Average Width  Deciduous © C  Stream Surface	Average Cha Intact Rip Ved dominant veg Coniferous (pin	getative Zogetation tyle/cypress)	(Toe of one (m)	Left ne reach?	2	m Estimated ag	Score Pe	Right >50 y	ge= Total Scor rs25-50 yi	m 5-herb ( 4 /	25 yrs _	36 % <5 yrs	
RIGHT: 3	Average Cha Intact Rip Ver dominant veg Coniferous (pin e Shading (%) er, middle, u	getative Zogetation tyle/cypress)	(Toe of one (m) pe in th  Mixed	Left ne reach?	sed on	m Estimated ag Number of st	Score Pe	Right>50 y opy, sub	ge= Total Scor rs25-50 yr canopy, shrub, n. Fill in squa	m rs 5- herb (4)	25 yrs	36 % <5 yrs	

Wetland Function-Value Evaluation Form Total area of wetland 6.2 at Human made? Is wetland part of a wildlife corridor? Latitude 39. 211814 Longitude - 74. 53388 Adjacent land use Distance to nearest roadway or other development Wetland Impact: Dominant wetland systems present Contiguous undeveloped buffer zone present Is the wetland a separate hydraulic system? If not, where does the wetland lie in the drainage basin? Evaluation based on: How many tributaries contribute to the wetland? Wildlife & vegetation diversity/abundance (see attached list) Corps manual wetland delineation completed? Y N Principal Suitability Rationale Function(s)/Value(s) Function/Value (Reference #)\* Comments Groundwater Recharge/Discharge Floodflow Alteration Impoundment adjacent, but unable to determine if connected, to Patapsio River Fish and Shellfish Habitat See note above about water course connection Reciues runoff from access roads + holds water year round Sediment/Toxicant Retention Nutrient Removal **Production Export** Sediment/Shoreline Stabilization Large phragmarsh surrounded by forest & shrubs 7,9,10,11,12,13,17 Wildlife Habitat A Recreation Educational/Scientific Value ★ Uniqueness/Heritage Wisual Quality/Aesthetics ES Endangered Species Habitat

Notes:

Other

<sup>\*</sup> Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Total area of wetland O, PacHuman made?	25 Is	wetland	part of a wildlife corrido	or? No	or a "habitat island"?	Wetland I.D. 1WET-G
Adjacent land use Utility ROW, Trans						Latitude 1. 20 Longitude 10. 5 150 de
	J					Wetland Impact:
Dominant wetland systems present PEM			Contiguous undev	eloped bu	ffer zone present 50 '	TypeArea
Is the wetland a separate hydraulic system?	25	_ If not,	where does the wetland	lie in the d	lrainage basin?	Evaluation based on:
How many tributaries contribute to the wetland?_	0	W	ildlife & vegetation diver	rsity/abun	dance (see attached list)	Office Field Corps manual wetland delineation
	Carita	ability	Rationale	Princ	einal	completed? Y N_
Function/Value		N	(Reference #)*		tion(s)/Value(s)	Comments
Groundwater Recharge/Discharge					Miles	
Floodflow Alteration						
Fish and Shellfish Habitat						
Sediment/Toxicant Retention	/	1,	2,4,5,7,9			
Nutrient Removal						
→ Production Export						
Sediment/Shoreline Stabilization						
<b>₩</b> Wildlife Habitat						
Recreation		1				
Educational/Scientific Value						
★ Uniqueness/Heritage						
Visual Quality/Aesthetics		/	4			
ES Endangered Species Habitat						
Other						

Notes:

<sup>\*</sup> Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

27				. 1	51		Wetland I.D. WET-I
Total area of wetland 2.56 at Human made?						0	Latitude 39.205025 Longitude 76.5498
Adjacent land use Transportation, Raile	sad,	Indi	Distance to nearest	roadway	or other development 50		Prepared by: TB Date 578/24
Dominant wetland systems presentPEM			Contiguous undev	eloped bu	ffer zone present 50		Wetland Impact: TypeArea
Is the wetland a separate hydraulic system?	0	_ If no	ot, where does the wetland	lie in the d	trainage basin? High		Evaluation based on:
How many tributaries contribute to the wetland?_	0		Wildlife & vegetation diver				Office Field Corps manual wetland delineation completed? Y N
Function/Value		ability N	Rationale (Reference #)*	Princ Func	ipal tion(s)/Value(s)	Co	mments
	T	/	(======================================				
Floodflow Alteration		1					
Fish and Shellfish Habitat							
Sediment/Toxicant Retention	/		1,2,4,5,7,9				
Nutrient Removal							
→ Production Export							
Sediment/Shoreline Stabilization							
<b>₩</b> Wildlife Habitat							
A Recreation		/					
Educational/Scientific Value		/					
★ Uniqueness/Heritage		/					
Visual Quality/Aesthetics							
ES Endangered Species Habitat							
Other							

Notes:

\* Refer to backup list of numbered considerations.

Forest Stand ID: 1FS1		Project:	MDTA Inner Loop Rills
Owner/Applicant: MDTA		~ .	10 County: Balt. City
Date: 2120124 Prepared	by: 5ky/EH	Photos:	P081-84
Type of Community:			Forest Stand Area:
Stand Successional Stage: La	arly Mid	Mature	Percent Canopy Closure: 30%
	Existing V	egetation	
Dominant Species in Canopy:	Size Class:	Notes:	
Bradford pear	2-6"		Scattered 6-11" thees
Siberi on elm	6-11"	inu	cusion of box elaces
Dave looust	20-30" >30"	port	tusion of box elacreo
Dominant Species in Understory:  Bacahans  Appur honeysuelde		Notes:	
smooth sumac	• •		
Dominant Species in Herbaceous La	VAP	Notes:	
Broom grass Sapanese h Phragnutes Switchgrass			
Downed Woody Debris: Invasive	e Species Cover: Inv	asive Speci	cies Present:
Medium	High Medium Low		
General Stand Conditions:			
Di Sturbed Voxesioce No	edgerms on s)	lope to	5 1-695.
			;*
Overall Condition:	Vin	ies: Mod	levat

Forest Stand ID: 1F52	Project: MDTA Inner Loop Rills
Owner/Applicant: MDTA	State: MD County: Back City
Date: 2120124 Prepared by: 8W/EH	Photos: 8094-95 8105-06
Type of Community:	Forest Stand Area:
Stand Successional Stage: Early Mid	Mature Percent Canopy Closure: 401
Existing	Vegetation
Dominant Species in Canopy: Size Class:	Notes:
Black locust 2-6"	,
(rec-16-heaven) 12-20-30	
white mulberry 20-30"	
Siberian elm	
Dominant Species in Understory:	Notes:
LINE TO SECTION	
Three-of-heaven Poisoning	
Baccharis Black locust japanese hone	ysuakic
Dominant Species in Herbaceous Layer:	Notes:
Englishing commonmulein Japanese honeysuddel	very spowse understong in some areas
Japanese	very sporse understang in some areas
graph sp.	V V
Downed Woody Debris: Invasive Species Cover: In	nvasive Species Present:
High	
Medium Medium	
Low Low	
General Stand Conditions:	the bitter of
Disturbed forest on so	uth side of NC. High tevel
of invasive species	
poor condition forest between	. fence + wc
	4
Overall Condition: Po b (	ines: H3N

Forest Stand ID: 15	53		Project: N	IDTA İnr	ner Loop Rills Project
Owner/Applicant: MDTA			State: MD	and the second	County: Baltimore
Date: 3/20/24 Pr	epared by:	F, SLY, LP	Photos:	6554	
Type of Community:	i i				Stand Area:
Stand Successional Stage:	Early	Mid	Mature	<del> </del>	at Canopy Closure: 401
		<u> </u>		Terech	t canopy Crosure.
Dominant Species in Canopy:	-	Size Class:	Vegetation Notes:		
Bradford pear Black locust		2-6" 6-11" 12-20 20-30" >30"	" In C	lus\ o	n of 1 18" pin oals.
Dominant Species in Understo	ory:		Notes:		
Amur honeysucki Multitlora rock	e		SUN	NAC D	nedge
Dominant Species in Herbaced Phrasmetes Japanese honeyru	•		Notes:		
Downed Woody Debris:  High Medium Low	High Medium Low	Cover: In	vasive Speci	es Prese	nt:
General Stand Conditions:	11 12 120 120		Fe sour		f
Deturbed heap				south	Of Darrach (1866, 3
High invasive s		cover	. !		
. Poor condit	ron				
Vines = modes	ate				

Forest Stand ID:   FS4	Project: FSK Rebuild							
Owner/Applicant: MDTA	State: MD County: Bathmore City							
Date: 5/6/24 Prepared by: EB 65	Photos: East							
Type of Community: FOREST BLACK LOWST / TRE	EOFHERSEN Forest Stand Area: 70731.39							
Stand Successional Stage: Early Mid	Mature Percent Canopy Closure: 75 7.							
Existing Vegetation								
Dominant Species in Canopy: Robinia pseudoacacia Atlanthus altissima, Mones alba, Liquidambar styraciflua  Size Class:  2-6" 6-11" 12-20" 20-30" >30"								
Dominant Species in Understory: Lonicera maackii, Rubus sp. Lonicera japonica, Toxicodendron radicar Celastrus orbiculatus, Heclera helix Amorpha fruticusa	Notes:							
Dominant Species in Herbaceous Layer:	Notes:							
Vines acting as ground cover								
High High	vasive Species Present: IAL, MOAL, LOMA, LOJA, CEOR EHE							
General Stand Conditions: Many invasives in the underston diversity.	J, trees in fair health, low							

Project: FSK Rebuild

Forest Stand ID: 1755	Project: FSK Rebuild		
Owner/Applicant: MDTA	State: MD County: Baltimore City		
Date: 5/10/24 Prepared by: HT, HH	Photos: Northwest		
2 10/2			
Type of Community: Forest Sweet-wom/con	mmon personnal Forest Stand Area: 32372.61 ft2		
	Mature Percent Canopy Closure: 25%.		
Existing Vo	egetation		
Dominant Species in Canopy: Liquidumbar Styraci (loa # 2-6"  Diopyrus Virginiana   12-20"  Robinia psuedo acacrus   20-30"  Pyrus Calleryana,	Notes: Robinia psuedonacia d morus aba also common Throughout Pyrus muleryand.		
Dominant Species in Understory: Baccharis halimitalia, Lonicera maackii pyrus calleryana, morvs alba Celastros orbiculatis, Toxicodendon radica. Diospy NS VI Jiniana.	Notes: Elaeagnos umbellata, Vita 20, Robus 5p, Parthenoccizsos quingefolia — also common		
Dominant Species in Herbaceous Layer: Lonicera japoni ca, lyrus calleguna, Cel astrus orbiculatis, Toxico dendon radicans Vinus dominant as grunda	Notes: Phragmiles australis scattered throughout Parthenocissus quenquefolia also common.		
High Medium Low Ca	asive Species Present: (CA, MOAL, BAHA, LOMA, EOR, ELUM, LOJA, PHAU		
Poor invasive species hoavy vine coverage, by vines	dominant throughout, trees stressed   damaged		

Forest Stand ID: \FS	Project:	=SK Rebuild
Owner/Applicant: MDTA	State: M	D County: Baltimore City
Date: 51024 Prepared by: HT, HH	Photos:	
31.7		
Type of Community: FOREST BLACKLOWST (SW	EFT - GUM	Forest Stand Area: 64610.22 ft 2
	Mature	Percent Canopy Closure: 25%
- Existing V	egetation	
Dominant Species in Canopy: Size Class:	Notes:	DIOSPHIOS VITXINIANO
Robinia Pseudoacacia 2-6"	Pyro	Diospyros Virginiana.
Diquidambar styracifly	Ailas	thus altissima - also
20-30		mon
Dissipancia de la sala sala sala sala sala sala sala		
Dominant Species in Understory:	Notes:	
Purus calleryang Robinia Pseudoacacia,		
Lonicra maackii, Baccheris halimitalie	c,	
Vitis of Calastrus orbiculatis		
Dominant Species in Herbaceous Layer:	Notes:	
Calastrus orbiculatis, Lonicara japonic	a - 5 ca -	Herod Phragmites australis
Rubis 20. Pash emosque aunque to	id of R	Rosa multiflora trtemisla
Rubus of, Parthenosissus quinque fol Ampelopsis brevipadones lata	-1010	as done note any of the
71. Potopo S	1 01.0	es dominate growthouse
Downed Woody Debris: Invasive Species Cover: Inv	asive Specie	es Present:
High Pigh	1CA, P	LUJA, RUMU, PHEAU
Medium Low	FOR	LUJA ROMU, PHEAU
Low	101-	
General Stand Conditions:		
Ponci-invasive species	dom	inant throughout,
1 Color Colors	tree	5 Stressed
reavy viscosity	1	
PODT-invasive species heavy vine coverage Lamaged by vines		
	11/	

Forest Stand ID: 1757	Project: #SK Rebuild							
Owner/Applicant: MDTA	State: MD County: Battimore City							
Date: 5/10/24 Prepared by: HT, HH	Photos: North May							
	1100 1100000							
Type of Community: for of Beach Lows Sylves	T-bury Forest Stand Area: 44252.41 ft2	12						
	Mature Percent Canopy Closure: 6040							
Existing V	Existing Vegetation							
Dominant Species in Canopy: Size Class:	Notes:							
Robinia pseudoacacia Liquidamburstyracifloa  6-11"	celtis occidentalis							
Overus philos 12-20"	Pyrus calleryara.							
20-30"								
tyros full organa >30"	few larger trees scattered throughout							
Dominant Species in Understory:	Notes:							
Pyros calleryana, Robinia pseudoaca via,								
renicera japonica, Lonicera incackii, Rosa multiflora, Vitis Sp. Calastrus orbica	11.6							
Parthenocissos quinquelolia.	0 9 7 2							
Dominant Species in Herbaceous Layer:	Notes:							
Thomas ter australis Rosa multitara	-Artemisia Vulgaris - common cilina	7						
vitis sp. Lonicera japonina, Celastrus	Stand edges.							
vitis so, Lonica japonina, Celestrus orbiculatis, Ampelopsis brevipedonco	la vives dominate ground car	196						
	vasive Species Present:							
High P	YCA, LOJA, ROMU, PHAU, CFOR	<,						
1 Madiana	RVU , AMBR, LOMI							
20"								
		. 190						
General Stand Conditions:								
Ponc-invisive apeci	ies deminant							
1								
Poor-invasive aspeci throughout understory	- + harb layoc.							
Mines advantage to	0. ( 1. )							
Vines dimbing tres	4 8 noubs							

Forest Stand ID: \FS %	Project: FSK Rebuild		
Owner/Applicant: MDTA	State: MD County: Baltimore City		
Date: 510 24 Prepared by:	Photos: West Suth		
Type of Community: 1000 > Sweet Gomy WH	HTE PINE Forest Stand Area: 23 292,82 ft2		
Stand Successional Stage: Early Mid	Mature Percent Canopy Closure: 50%		
Existin	ng Vegetation		
91100000	few larger white pines		
Pyrus calleganna = 20.	-30" morus albus		
Dominant Species in Understory: Amplopsis brended roll Notes:  Baccharis halimitolia Lonicera maackii Eleagnos umbellata, Rhustyphina, Lonicera japonica, Vitis Sp. Celastros orbicolatis, Toxico dendron radicans., Robus op., Rosu mottilara			
Dominant Species in Herbaceous Layer:	Notes:		
Phragmites australis, Toxicodendron	-Phagmites austraulis		
quique folia, vitio sp., Ampelopsis -virus deminant as ground brevioed una lata			
Downed Woody Debris: Invasive Species Cover:	Invasive Species Present:		
High High Medium Low	PYCA, MOAL, GAHA WJA, AMBR, LOMA, CFOR, ROMU, PHAU		
General Stand Conditions:			
Poot - invasives dominant throughout, heavy			

Forest Stand ID: 1759		Project: FSK Rebuild		
Owner/Applicant: MDTA		State: my County: Baltmore City		
	pared by: HT, HH	Photos:		
9/10/2		.,		
Type of Community:	BLACK CHERRY   BIE	ach Lows Forest Stand Area: 47097, 70		
Stand Successional Stage:		Mature Percent Canopy Closure: 75%		
	Existing V	egetation egetation		
Dominant Species in Canopy:	Size Class:	Notes:		
Pronos sertina	2-6"	Querus abla a carya tomentosa		
Robinia pseudoacac	12-20"	also common; Ailanthus attissima, scattered along stand edges		
Pyrus calleryana	20-30"	· scattered along stand edges		
	>30"	Pawloma tomenton Scattered		
Dominant Species in Underston Pyrus callegana Pro	ry: Am pelupsis broviped	orginores: D. guchans halimin folici		
Ivex opaca, Toxicod	indon oud cans	S. Miconals rankingolia		
Rock multiflux Lor	rice a comical			
Rosa multiflora Lor Celastrus orbitulatis	Parthenoussus quing	veldia		
Dominant Species in Herbaceo	us Laver:			
Loniara japonica	Rosumultillora,	Notes: scattered phrasmites australis, along		
TDX100dendron Vac	Caris for very class	is others edges.		
quiquatolia, Calastos	orbiculatis			
		in Coming Description		
		vasive Species Present:		
High Medium	High Medium	PYCA, PATO, AMBR, BAHA,		
Low	Low	amu, LOJA, CEOR, PHAU		
Southern Later Flux				
General Stand Conditions:				
Fair - invasive species dominant, vines dimbing				
trees, moderate spicies diversity				
V				
eastern portion of stand shightly your ger but similar openies & condition.				
unsteen po				
similar spear	s - condilim			

Forest Stand ID: 17516	Project: FSK Rebuild		
Owner/Applicant: MDTA	State: MD County: Baltimore City		
Date: 5 0 24 Prepared by: HT, HH	Photos: East		
Type of Community: Forest Tuppres / TRE			
Stand Successional Stage: Early Mid '	Mature Percent Canopy Closure: 🛇 🗸		
Existing V	egetation		
Dominant Species in Canopy: Size Class:	Notes:		
Liriodendion tripitera 2-6"	Pauloma tomentosa, Diospyrus Virginiuna, Juniprus virginian		
Ay anthus attissima 12-20"	Virginiana, Juniprus virginian		
liquidampac Styracition 20-30"	mores alba		
Prohis Seratina >30"			
Dominant Species in Understory: Hadrahelix	Notes:		
Maris albus, Lonicira maackii, Lonicer	a French make this work a second to the		
radicans, celastrus orbiculatos Campsis			
radicun Rosu multitlora, Rubus of			
Dominant Species in Herbaceous Laver:	Notes:		
Lonicera japonica Toxico dendon vadicans celastos orbico latis	vines dominant ground over		
radicans, celastous orbiculatis			
Allarra petiolata, Hedra helix	네 [10] 이 아이는 아이는 아이는 아이를 다 되었다.		
	: C : D		
	asive Species Present:		
High High Medium	JA, ELUM, CEOR, ROMO, ALPE		
Low	JA, LOM, CLOR, FORMU, ALPE		
SI	potted lantern ty		
General Stand Conditions:	1		
August demains les la businesse	15110 expecies innes		
Stand dominated by invasive species, vines growing over most trees causing stress damage			
growing over most thee	causing sness aunage		

Forest Stand ID: \FS   \	Project: FSK Rebuild		
Owner/Applicant: MDTA	State: MD County: Baltimore City		
Date: 5 10 24 Prepared by: HT, HH	Photos: East		
Type of Community: Torest BLACK LOCUST / CALL			
Stand Successional Stage: Early Mid	Máture Percent Cánopy Closure: 5%		
Existing V	egetation		
Dominant Species in Canopy: Size Class:	Notes:		
Robinia pse doacada 2-6"	Ailanthus altissima &		
Duros calleryana 6-11"	Pawlonia tomentosa, Joniperus		
Liquidanbar styracitua = 12-20" 20-30"	virginiana		
Diospyrus Virjanca >30"	Quertus phellos-suffered		
	Notes:		
Dominant Species in Understory: Baccharis halimitolia, Loriua	Eleagnus umbellata.		
manchi, pyrus calleryana vitas so.			
Liquidanibus styracition, Amplopsis			
brevipedinalata, Toxkodendon radicans	NY .		
Dominant Species in Herbaceous Layer:	Notes:		
Celastras arbitulatis, Lanitera	phrugmites australis-scattered along standedge		
Juponica, Rusa moltiflora, Toxico dende along stand edge			
Robus of Artemis'a volgare	vines dominant as ground care		
Downed Woody Debris: Invasive Species Cover: Inv	asive Species Present:		
High High	ICA, AIAL, PATO, BAHA, ELUM,		
	MA, AMBR, CEOR, LOJÁ, ROMÓ,		
Low	LVU'		
General Stand Conditions:	1		
Par investo solera ami	nant throughout vines		
Poor - invasive species dominant throughout, vines			
climbing & streamy I danusping trees.			
V			
	1		

Forest Stand ID: \ + S	Project:	FSK Rebuild
Owner/Applicant: MDTA	State: M	
Date: 5/10/24 Prepared by: HT, HH	Photos:	500 th wef
Type of Community: Force WILLOW GALL	BLACK LOCUST	Forest Stand Area: 57918.32 472
Stand Successional Stage: Early Mid	Mature	Percent Canopy Closure: 75%
Existi	ng Vegetation	
Dominant Species in Canopy:  Querws philos Robinia prodoacacia Liquidanbar styracitlua  Dominant Species in Understory: Taxwadagan radion Notes:  Ponica prodoacacia Loniera ja ponicai Rosamuttibra  Bacchan's halimitolia Smilar  potmalifolia Der cacar, Parturoassy ginguetolia clastrus orbinulat, Rubus  Toxio de na non radian's, Celastrus  orbinulatis, Spliday p,		
Downed Woody Debris: Invasive Species Cover: Invasive Species Present:  High Medium Low  General Stand Conditions:  Fair - mod species diversity, canapy thees generally in good health invasive species are prevelant throughout, vines dimbing some thies.		

Forest Stand ID: 17513	Project: PSK Rebuild	
Owner/Applicant: MDTA	State: MD County: Baltimore City	
Date: 5/16/24 Prepared by: HTITT	Photos: 5W	
Type of Community: forest WILLOW OAK SOOTHE	FEN REPONL Forest Stand Area: 15412, 85 A2	
Stand Successional Stage: Early Mid	Mature Percent Canopy Closure: 90	
Existing V	egetation	
Dominant Species in Canopy: Size Class:	Notes:	
Quercus Phillos 2-6"	Acer robrom also common	
Que cos talcata 6-11"  Con eccus caba 712-20"	Punos serotna,	
20-30"	그리 왕에는 시작하다는 이 그렇게 모든 이번 전에 보면 하는데 되었다. 그리고 하는데 하고 있는데 화목도 있다.	
>30"	some larger thees throughand	
Dominant Species in Understory:	Notes:	
Smilax notonditoria Parthenosissus	open understory in the	
guinquetolia. Toxicoded un rusique,		
Campsys radicas, Rosa multitura		
Dominant Species in Herbaceous Layer:	Notes:	
Convariation (a) Parth - micos	Oho miles auxordis daminant	
lanura japonica, Parthenoussus quinquetidia, Toxico dondon radicans	Phragmiter austrelis dominant dong stand edge	
i i i i i i i i i i i i i i i i i i i	atory stand 20 ye	
Downed Woody Debris: Invasive Species Cover: Inv	vasive Species Present:	
High Romu, LOJA, PHAV		
Medium Medium		
Low Low		
General Stand Conditions:		
General Stand Conditions: Fair Interview forest is diverse with an open understory		
Stand adge is more distorted with heaver vine		
l'avasive couler.		

Forest Stand ID:   H2		Project: FSK Rebuild		
Owner/Applicant: MD	-A	State: /	State: MD County: Bathimore City	
Date: 5/6/24	Prepared by: EB, 65	Photos: West		
Type of Community: 100	serow Amon	none filelel	Forest Stand Area: 206,766.28 ft2	
Stand Successional Stage:	Early Mid	Mature	Percent Canopy Closure: 207	
	Existing	y Vegetation		
Pominant Species in Canop Robinia psaudoacacia Acer negundo, Ailantho Pynus calleryana, Ul Bureus phales, Quer	us alfissima 2-6° nus americana 12-2	does fores some	scattered trees throughout, not meet definition of a t. Trees are in fair health, are being overtaken by	
Dominant Species in Understory: Array Pho Fruticisa. Ropa multiflora, Kvelrewten a paniculata, Lonicera Maackii, Baccharis halimifolia, Viburnum Ap., Toxicodendron radicans, Lmicera japonica, Hedera helix, Parthenocissus guinguephia, Celastrum orbiculatus				
None, Macs act	ing as groundeeve	Notes:		
Downed Woody Debris:  High Medium Low	High	Invasive Speci MOAL, AIA LOJA, HET	ies Present: AL, PYCA, ROMU, LOMA, HE, CEOR	
General Stand Conditions: Many invasive & Mealth with ma	pecies in canoping vil	t unde	eisting. Theis in fair	

Forest Stand ID: 143 Project: FSK Rebuild		
Owner/Applicant: MDTA	State: MD County: Battimore City	
Date: 5 10 21 Prepared by: HT, HH	Photos: North	
	1(18: 1:1)	
Type of Community: Ledgerow	Forest Stand Area: 10755.92 ft <sup>2</sup>	
Stand Successional Stage:	Mature Percent Canopy Closure: 15%	
Existing V	egetation	
Dominant Species in Canopy:  Robinia Psychoacacia Liguidan bac styractioa  Aitanthis attituda  Size Class:  2-6" 6-11" 12-20" 20-30" >30"	Notes: Ailanthus altissima + morus alba also common throughout  Rhis typhena-clusters	
Dominant Species in Understory:  Baccharis hali mitolia, Lonicera muelcii, Ailanthus altissima, Lonicera japonica, Celastrus orbiculatis Toxicodendon  radicans		
Dominant Species in Herbaceous Layer: Lanica japonica, Cela Strus orbiculates Toxico dendun radicas, Parthenocissus quinquefolia  Vines are dominant ground core		
Downed Woody Debris:    High   High   Medium   Low   Low   Low   Low   Invasive Species Present:   PYCA   ATAL, MOAL BAHA   LOMA   LOTA   CEOR   PHAV		
General Stand Conditions:		
Poor - heavy invasive cover wordy veg + stressing   d species	amaging native tree	

Forest Stand ID: 1 H L	Project: FSK Rebuild			
Owner/Applicant: MDTA	State: MD County: Baltimore City			
Date: 5 16 24 Prepared by: HT, HH	Photos:	lorth wost		
Type of Community: Noserow		Forest Stand Area: 109097.44 ft <sup>2</sup>		
Stand Successional Stage: Early Mid	Mature	Percent Canopy Closure: 15%		
Existing V	egetation			
Dominant Species in Canopy: Size Class:	Notes:			
Robinia pseudoacacia \(\sime \)2-6"	the	es are scattered in some		
Liquidambar Styracitla 6-11" 12-20"	are	as		
Pyros culoryana 20-30"		s Stobus Pawlonia tomentosa		
>30"		salba galas		
Dominant Species in Understory: AM Releases brengeding	workNotes:	a an eval allet a vide a co		
Bacharis halimitolia, Ligurdanion	Flore	agnos umbelata vitis of,		
Styraciflua, Pyros calleryana, lonicer		5 75 - 2130 (811)11301		
neaction Celastruz orbiculatis, Toxico dendros	)			
Dominant Species in Herbaceous Layer:	Notes:			
Columns or biculatis, their and an	Dha =	miteraustralia along		
radicans, Parthenosissus quinquetolia	Sta	gmiter australis a long		
Radicians, Parthenorissus quinquefolia Baccharis halimifolia, Lonice a juponia	ethnow	5-11-		
Amperical and Advance to the angelogical and a second	1,1,000	WC 7		
	asive Specie			
High High	ICA, B	AH A, LOMA, CEOR.		
Medium Hi	-UM,			
Low				
30 마음 전에 되어 마음 그리고 하는데 작가 되었다면 하는데 하는데 되었다면 하는데 되었다면 하는데 되었다.				
General Stand Conditions:				
POOT - invasives species dominant, heavy vine				
coverage stressing damaging trees				

Forest Stand ID: 145 Project: FSK Rebuild		
Owner/Applicant: MDTA	State: MD County: Baltimore City	
Date: 5 10 24 Prepared by: HT, HH	Photos: Southeast	
Type of Community: Nedgemu	Forest Stand Area: 17775.93 Ft2	
Stand Successional Stage: Early Mid	Mature Percent Canopy Closure: 25%	
Existing V	egetation	
Dominant Species in Canopy: Size Class:	Notes:	
Pyrus calleryana  Populus alba  Robinia pseudoacacia:  Ligudambar 87 y rociflua  2-6" 6-11" 12-20" 20-30" >30"		
Dominant Species in Understory: Rusa Multitura Notes:  Baccharis halimitolia Lenicea magckii, relatios  Toxico de notion radicans Lonicera, orbiculatis  japonica, Parthenocizsus yunquefolia  Eleagnus umbellata, Ampelopsis brevipedunculata		
Dominant Species in Herbaceous Layer:  Phraymites australis, Ampelopas brevipsind our lette, con i ara japonica.  Toxico de notion nidicans		
Downed Woody Debris: Invasive Species Cover: Inv	asive Species Present:	
High Medium Low PYCA, BAHLA, ROMO, LOMA, CEOR LOJA, ELUM, AMBR, PHAU		
General Stand Conditions:  lacking density of trees to charrify as a forest, but border line  invasive species dominant, vines climbing		

Forest Stand ID: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Project:	FSK Rebuild		
Owner/Applicant: MDTA	State: V	D County: Baltimore City		
		northeast		
	1845 (13.7			
Type of Community: Ledgerow		Forest Stand Area: 23315, 56		
Stand Successional Stage: Early Mid	Mature	Percent Canopy Closure: 15%		
Existing V	egetation			
Dominant Species in Canopy: Size Class:	Notes:			
Pyrus calleyana, Liquidan bar Styraci Clua Diospyrus vio ginhana Prunus suntina  2-6" 6-11" 12-20" 20-30" >30"	Sur No RCa	niperus virginiana Acer nom , Quercus phellos Herd throughout paras		
	Notes:			
Bacchans halimi Glia, hosamultiflora, Eleagnos umbellata, also common Lonicera japonica, Vitstap intimulatio, Lonicera manckii Rubus sp.  Ampelooss previpeduneulata.  Dominant Species in Herbaceous Laver:  Notes:				
vitis sp, Rosa moltiflora, Lonicera japonica Calastros rebiculatios phragmites australis, Ampelopsis previpeduculata				
Downed Woody Debris:  High Medium Low  Invasive Species Cover:  PYCA PATO, BAHA, LOMA,  LOTA, ROMU, CEOR				
General Stand Conditions:				
Poor - invasive species dominant, vines covering most trees scattered with thee suplings and shrubs dense throughout				

Forest Stand ID: 1H1		Project: MDTAINNEY LOOP RIJS		
Owner/Applicant: MDTA		G4_4		
	Date: 2120 04 Prepared by: 5W EH		8102	
Type of Community:			Forest Stand Area:	
Stand Successional Stage:	Mid _	Mature	Percent Canopy Closure: 251,	
	Existing V	Vegetation		
Dominant Species in Canopy:	Size Class:	Notes:		
Brad ford pear	2-6" 6-11" 12-20' 20-30' >30"	,,		
Dominant Species in Understory:	~	Notes:		
Bacehoris				
Dominant Species in Herbaceous Layer:		Notes:		
Japanisch-neysuelde				
Japanischintyswelde Pringmits on edge				
Downed Woody Debris: Invasive Species	Cover: In	ıvasive Speci	ies Present:	
High High Medium Low		_		
General Stand Conditions:				
Small heage row on highway	yslope			
Overall Condition:	Vi	ines: Maa	elerate	

and the second of the second o

Forest Stand ID: 2H1 Project: FSK Rebuild					
Owner/Applicant: MDTA	Statasas	- <u>0 K K</u>	Country		
		State: MD		County: Baltimore	
Date: 5/3/24 Prepared by: LP, ET Photos: 9335					
Type of Community, Ne do arous					
Type of Community: Hedgerow  Stand Successional Stage:  Early  Mid  Matur			Forest Stand Area: 3, 119 ft <sup>2</sup>		
Stand Successional Stage:				t Canopy Closure: 30%	
Existing Vegetation					
Dominant Species in Canopy: Size Class: Notes:					
Tree of Heaven × 2-6"					
- white mulberry 6-11"   12-20"					
20-30"					
	>30	ייי			
Dominant Species in Understory: Notes:					
• paison ivy					
tree of heaven					
- bacchan's hamifolia - false indigo					
Ų.					
Dominant Species in Herbaceous Layer: Notes:					
·poison ivy japanese honeysuckle					
· lescuesp.					
=					
	white mulberry				
Medium Low	Medium - Japanese honeysuckie				
General Stand Conditions: high invasive sp. cover, poor quanty, narrow hadgerow between					
	road + river				

Forest Stand ID: 2H2	Project:						
Owner/Applicant:		FSK Rebuild					
	State: MD County: Battimorc						
Date: 5/3/24 Prepared by: LP, ET	Photos: c	1339					
Type of Community: Hedgerow	35 /	Forest Stand Area: 1,574 f+2					
Stand Successional Stage:	Mature	Percent Canopy Closure: リロケ					
Existing V	Existing Vegetation						
Dominant Species in Canopy:  tree of heaven  Size Class:  2-6"  6-11"  12-20"  20-30"							
Dominant Species in Understory:  *tree of heaven  * poison ivy							
Dominant Species in Herbaceous Layer: Polson IVY Virginia Crecper Japanese honeysuckie	Notes:						
High Medium Low		aven noneysoekie					
General Stand Conditions: high invasive cover, p	oor guai	ity					

Forest Stand ID: 2H3	Project:	SK Rebuild				
Owner/Applicant: MDTA	State: MD County: Baltimore					
Date: 6/3/24 Prepared by: LP, ET	Photos: 0	340				
Type of Community: Hedgerow Forest Stand Area: 1,159f+2						
Stand Successional Stage: Early Mid	Mature	Percent Canopy Closure: 50%				
Existing Vegetation						
Size Class:		· .				
Dominant Species in Understory:  Golden Raintree Black cherry	Notes:					
Dominant Species in Herbaceous Layer:  or Golden Raintrec  fescue sp.  japanese honeysucke	Notes:					
High Medium Low		aintrec				
General Stand Conditions: high involve cover, p	wi qua					

Forest Stand ID: 2H4	Project: FSK Rebuild					
Owner/Applicant: MDTA	State: MD County: Bammore					
Date: 5/3/24 Prepared by: UP, ET	Photos: photo-9369					
Type of Community: Hedgerow Forest Stand Area: 10,600 ft?						
	Mature Percent Canopy Closure: 50%					
Existing Vegetation						
Size Class:   White Mulberry	Notes:					
Dominant Species in Understory: - poison ivy - baccharts halimifolia - White mulberry	Notes:					
Dominant Species in Herbaceous Layer:  poison ivy virginia decper fes cue op.  gapanese hancys ackie	Notes:					
High Medium Low	rasive Species Present: Whe mulberry paviese honey suckic					
General Stand Conditions: high invasive cover, poor q	uarity					

Forest Stand ID: 245	Project: PSK Robuild
Owner/Applicant: MDTA	State: MD County: Baltimore
D. L. C.	
Date: 5/3/24 Prepared by: U, ET	Photos: photo - 9370
Type of Community: Hedgerow	Forest Stand Areas D 10000 2
Stand Successional Stage: X Early Mid	Forest Stand Area: 2/100-7+2  Mature Percent Canopy Closure: 40 %
Saint Successional Stage. Z Early Mild	Tercent Canopy Closure: 40 6
	Vegetation
Dominant Species in Canopy:   Siberian elm   2-6"	
Dominant Species in Understory:  · boscharis hamilialia  · siberian elm  · paison ivy	Notes:
Dominant Species in Herbaceous Layer: . Common mugwort . poison ivy . japanese heneysuckse . Virginia eseeper	Notes:
Downed Woody Debris: Invasive Species Cover: In	vasive Species Present:
Medium Low Low	oiberian elm apanest honeysuckie ommon mugwon
General Stand Conditions: Wigh in Vasive cover	, poor quality
·	•

Forest Stand ID: 2011		Project:	70 1 P 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
Forest Stand ID: 2H6		Project: FSK Rebuild					
Owner/Applicant: MDTA		<u> </u>	State: MD County: Baltimore				
Date: 5/7/24 Prepared b	y: LP, ET	Photos:	351 - 52				
Type of Community: Hedgerow Forest Stand Area: 5,037 ft-2							
Stand Successional Stage: X Early	Mature	Percent Canopy Closure: 40%					
Existing Vegetation							
Dominant Species in Canopy: white mulberry, chings um, black locust	Size Class:  2-6"  6-11" 12-20 20-30 >30"	,					
Dominant Species in Understory: chinese privet, multiflora ros fasse indigo,	e,	Notes:					
Dominant Species in Herbaceous Layer carry dock, wood reed, poison	ivy	Notes:					
High Hig	h . u dium . c	ivasive Specie nincsc elm unite mulb chinese priv multiflora	eny et vose				

Forest Stand ID: [21]		ALDI STAT					
	Project: FSK Rebuild						
Owner/Applicant: MDT		State: ~	State: MD County: Baltimore				
Date: 5/7/24	Prepared by: UP, ET	Photos:	935				
Type of Community: Hedgerow Forest Stand Area: 3, 894 ft 2							
Stand Successional Stage:	Early Mid	Mature	Mature Percent Canopy Closure: 40%				
Existing Vegetation							
Dominant Species in Canopy:  black locust; tree of heaven,  Chinese eym,  Size Class:  2-6"  6-11"  12-20"  20-30"  >30"							
	Dominant Species in Understory:  Tree of heaven, black cherry, baccharis halimitalia  Chinese Privet						
Dominant Species in Herb virginia creeper, ?	Dominant Species in Herbaceous Layer:  virginia creeper, Poison ivy, japanese honeysuckie						
Downed Woody Debris:	Invasive Species Cover:	Invasive Specie	es Prese	ent:			
High Medium Low  Invasive Species Cover:    High   High   Medium   Chinese cim   Chinese private							
General Stand Conditions:							
poor quality, his	In Wasiaa						
				ļ			

Forest Stand ID: 248		Project: F	SK R	ebuil d		
Owner/Applicant: MOTP			State: MD County: Baltimore			
Date: 5/7/24	Prepared by: LP, ET	Photos:	363	-64		
			, ,			
Type of Community:	dgerow		Fores	t Stand Area: 91, 902 ft2		
Stand Successional Stage: X Early Mid Mature				nt Canopy Closure: ちつて		
Existing Vegetation						
Dominant Species in Cano tree of heaven, white brad ford pear, swe black locust, cottor	er gum,	" 0" 0"				
Dominant Species in Understory: Hee at heaven, false indigo, bacchans, halmitold, black locust, Sweet gum						
Dominant Species in Herba poison ivy, virginia phragmites austraus	ceous Layer:  creeper, japanese hone , rice cut grass	Notes:				
Downed Woody Debris:	Invasive Species Cover: I	nvasive Specie	s Prese	ent:		
High Medium Low	High Medium Low	Tree of heav unite muss bradfood pec Japanese ho Phragmises	beny neysod l aus			
General Stand Conditions:	poor quality, high in excluded from hedge	Valley Son	7 E N	10TA planting areas		
. Tree density di	ces not meet definition	or brest		` w		
	·					

Forest Stand ID: 2H9	Project: FSK Rebuild					
Owner/Applicant: MDTA	State: MD County: Baltimone					
Date: 5/7/24 Prepared by: LP, ET	Photos: 9368					
-,,,,,	1300					
Type of Community: Hedgerow	Forest Stand Area: 5,022 ft 2					
	Mature Percent Canopy Closure: 50%					
Existing Vegetation						
Dominant Species in Canopy:  The cof heaven, black locust, persimmon,    Compared to the content of the content	Notes:					
Dominant Species in Understory:  golden rain tree, tree of heaven  multiflera, false indigo bush, bacchar  rose, halimitoua	Notes:					
Dominant Species in Herbaceous Layer: Poison in virginia creeper, japanese Noney suckle, catchweed bedstraw	Notes:					
High High G	asive Species Present: ec of heaven olden rain-tree ultitiold rose upancic honeyruskie					

**APPENDIX E: PHOTOGRAPH LOG** 

### WETLAND DELINEATION PHOTOGRAPHS



Photo 1 – Looking southwest at 1WETB



Photo 2 – Looking northeast at 1WETC



Photo 3 – Looking southwest at 1WETD



Photo 4 – Looking west at 1WETE



Photo 5 – Looking northeast at 1WETF



Photo 6 – Looking southwest at 1WETG



Photo 7 – Looking east at 1WETH



Photo 8 – Looking northwest at 1WETI



Photo 9 – Looking south at 1WETJ



Photo 10 – Looking southwest at 2WETA



Photo 11 – Looking southwest at 2WETB



Photo 12 – Looking northeast at Photo 2WETC



Photo 13 – Looking northeast at 2WETD



Photo 14 – Looking southwest at UTP-1

### FOREST STAND PHOTOGRAPHS



Photo 1: Looking west at 1FS1



Photo 2: Looking southwest at 1FS2



Photo 3: Looking northeast at 1FS3



Photo 4: Looking east at 1FS4



Photo 5: Looking northwest at 1FS5



Photo 6: Looking northwest at 1FS6



Photo 7: Looking west at 1FS7



Photo 8: Looking south at 1FS8



Photo 9: Looking north at 1FS9



Photo 10: Looking east at 1FS10



Photo 11: Looking east at 1FS11



Photo 12: Looking southwest at 1FS12



Photo 13: Looking southwest 1FS13

### **HEDGEROW PHOTOGRAPHS**



Photo 1: Looking north at 1H1



Photo 2: Looking west at 1H2



Photo 3: Looking north at 1H3



Photo 4: Looking northwest at 1H4



Photo 5: Looking southwest at 1H5



Photo 6: Looking west at 1H6



Photo 7: Looking at 2H1



Photo 8: Looking at 2H2



Photo 9: Looking at 2H3



Photo 10: Looking at 2H4



Photo 11: Looking at 2H5



Photo 12: Looking at 2H6



Photo 13: Looking at 2H7



Photo 14: Looking at 2H8



Photo 15: Looking at 2H9

Francis Scott Key Bridge Rebuild Project-Natur	al Resource Inventory Repo	ort
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**APPENDIX F: HEDGEROW SUMMARY TABLE** 

# Appendix F: Francis Scott Key Bridge Rebuild Project Hedgerow Summary Table

Hedgerow ID	Dominant Species in Canopy	Size Class	Dominant Species in Understory	Dominant Species in Herbaceous Layer	Comments
1H1 (NRI Map Sheets 2 and 3)	Pyrus calleryana	2-6"	Baccharis halimifolia	Lonicera japonica Phragmites australis	Small hedgerow on highway slope.
1H2 (NRI Map Sheets 3 and 4)	Robinia pseudoacacia Morus alba Acer negundo Ailanthus altissima Pyrus calleryana Ulmus americana Quercus phellos Quercus palustris	2-6"	Baccharis halimifolia Rosa multiflora Amorpha fruticosa Koelreuteria paniculata Lonicera maackii Viburnum sp. Toxicodendron radicans Lonicera japonica Hedera helix Parthenocissus quinquefolia Celastrus orbiculatus	Toxicodendron radicans Lonicera japonica Hedera helix Parthenocissus quinquefolia Celastrus orbiculatus	High invasive species cover in canopy and understory. Trees in fair health with many climbing vines.
1H3 (NRI Map Sheet 2)	Robinia pseudoacacia Liquidambar styraciflua	2-6"	Baccharis halimifolia Lonicera maackii Ailanthus altissima Lonicera japonica Celastrus orbiculatus Toxicodendron radicans	Lonicera japonica Celastrus orbiculatus Toxicodendron radicans Parthenocissus quinquefolia	Poor condition with high invasive cover; vines covering most of the woody vegetation and damaging native tree species
1H4 (NRI Map Sheets 1 and 2)	Robinia pseudoacacia Liquidambar styraciflua Pyrus calleryana	2-6"	Rosa multiflora Baccharis halimifolia Ampelopsis brevipedunculata Liquidambar styraciflua Pyrus calleryana Lonicera maackii Elaeagnus umbellata Celastrus orbiculatus Toxicodendron radicans Lonicera japonica Parthenocissus quinquefolia	Phragmites australis Ampelopsis brevipedunculata Toxicodendron radicans Lonicera japonica	Poor condition with high invasive species and vine coverage which are causing damage to trees.
1H5 (NRI Map Sheet 1)	Pyrus calleryana Populus alba Robinia pseudoacacia Liquidambar styraciflua	2-6"	Rosa multiflora Baccahris halimifolia Lonicera maackii Toxicodendron radicans Lonicera japonica Parthenocissus quinquefolia Eleagnus umbellata Ampelopsis brevipedunculata Celastrus orbiculatus	Phragmites australis Ampelopsis brevipedunculata Lonicera japonica Toxicodendron radicans	Did not qualify as a forest due to tree density.  High invasive species and heavy vine  coverage.
1H6 (NRI Map Sheet 1)	Pyrus calleryana Liquidambar styraciflua Diospyros virginiana Prunus serotina	2-6"	Baccharis halimifolia Rosa multiflora Lonicera japonica Lonicera maackii Ampelopsis brevipedunculata Vitis sp. Rubus sp.	Vitis sp. Rosa multiflora Lonicera japonica Celastrus orbiculatus Phragmites australis Ampelopsis brevipedunculata	Poor condition with high invasive species and vines covering most trees. Trees are scattered with saplings and shrubs throughout.
2H1 (NRI Map Sheet 6)	Ailanthus altissima Morus alba	2-6"	Toxicodendron radicans Ailanthus altissima Baccharis halimifolia Amorpha fruticosa	oxicodendron radicans Toxicodendron radicans High invas Ailanthus altissima Lonicera japonica hedgeron Baccharis halimifolia Festuca sp.	
2H2 (NRI Map Sheet 5)	Ailanthus altissima	2-6"	Ailanthus altissima Toxicodendron radicans	Toxicodendron radicans Parthenocissus quinquefolia Lonicera japonica	High invasive cover, poor quality

Hedgerow ID	Dominant Species in Canopy	Size Class	Dominant Species in Understory	Dominant Species in Herbaceous Layer	Comments
2H3 (NRI Map Sheet 5)	Koelreuteria paniculata	2-6"	Koelreuteria paniculata Prunus serotina	Koelreuteria paniculata Festuca sp. Lonicera japonica	High invasive cover, poor quality
2H4 (NRI Map Sheets 5 and 6)	Morus alba	2-6"	Toxicodendron radicans Baccharis halimifolia Morus alba	Toxicodendron radicans Parthenocissus quinquefolia Festuca sp. Lonicera japonica	High invasive cover, poor quality
2H5 (NRI Map Sheet 6)	Ulmus pumila	6-11"	Baccharis halimifolia Ulmus pumila Toxicodendron radicans	Artemisia vulgaris Toxicodendron radicans Lonicera japonica Parthenocissus quinquefolia	High invasive cover, poor quality
2H6 (NRI Map Sheet 6)	Morus alba Robinia pseudoacacia Ulmus parvifolia	6-11"	Ligustrum sinense Rosa multiflora Amorpha fruticosa	Cinna arundinacea Toxicodendron radicans Rumex crispus	Poor condition hedgerow on berm between Patapsco River and wetland
2H7 (NRI Map Sheet 6)	Robinia pseudoacacia Ailanthus altissima Ulmus parvifolia	2-6"	Ailanthus altissima Prunus serotina Baccharis halimifolia Ligustrum sinense	Parthenocissus quinquefolia Toxicodendron radicans Lonicera japonica	High invasive cover, poor quality
2H8 (NRI Map Sheets 6 and 7)	Ailanthus altissima Morus alba Pyrus calleryana Liquidambar styraciflua Robinia pseudoacacia Populus deltoides	6-11"	Ailanthus altissima Amorpha fruticosa Baccharis halimifolia Liquidambar styraciflua Robinia pseudoacacia	Toxicodendron radicans Parthenocissus quinquefolia Lonicera japonica Phragmites australis Leersia oryzoides	High invasive cover, poor quality. MDTA planting areas were excluded from hedgerow.  Tree density does not meet definition of a forest
2H9 (NRI Map Sheet 7)	Ailanthus altissima Robinia pseudoacacia Diospyros virginiana	2-6"	Koelreuteria paniculata Ailanthus altissima Rosa multiflora Amorpha fruticosa Baccharis halimifolia	Toxicodendron radicans Parthenocissus quinquefolia Lonicera japonica Galium aparine	High invasive cover, poor quality

**APPENDIX G: TREE TABLE** 

## APPENDIX G: FRANCIS SCOTT KEY BRIDGE REBUILD PROJECT TREE AND SHRUB TABLE

Tree ID*	Common Name	Scientific Name	DBH	Condition	Comment 201 8 201
1T1	Eastern cottonwood	Populus deltoides	30	Fair	Broken branches, heavy vines, twin trunks 30" & 29"
1T2	White mulberry	Morus alba	14	Poor	Significant lean, growing partially horizontal, heavy vine load, dead branches
1T3	Tree of heaven	Ailanthus altissima	4	Fair	Lean, vines on lower trunk
1T4	Black cherry	Prunus serotina	11	Fair/Poor	Vines in lower crown, broken branches
1T5	Black cherry	Prunus serotina	6	Fair/Poor	Minor trunk decay, vines on trunk
1T6	Black cherry	Prunus serotina	8	Fair/Poor	Minor trunk decay, vines on trunk
1T7	Bradford pear	Pyrus calleryana	10	Fair/Poor	overtopped by vines, exposed roots on slope, twin trunks 10" & 7"
1T8	Common hackberry	Celtis occidentalis	16	Fair/Poor	Heavy vines in lower canopy, slight lean, exposed roots on slope
470	Cit	111	20	F : /D	
1T9	Siberian elm	Ulmus pumila	28	Fair/Poor	High vine load in lower crown, some broken branches, exposed roots on slope
1T10	White mulberry	Morus alba	8	Fair	Healed trunk wounds, dead branches
1T11	Black locust	Robinia pseudoacacia	23	Poor	Heavy vines on trunk and crown, significant broken branches, exposed roots on
1111	black locust	Robinia pseudoucucia	23	FOOI	slope, dead secondary leader
1T12	Black locust	Robinia pseudoacacia	8	Fair/Poor	Heavy vines on trunk, broken branches, some bark damage
1T13	Black locust	Robinia pseudoacacia	2	Fair	Lean overtopped by adjacent vegetation
1T14	Black locust	Robinia pseudoacacia	8	Poor	Heavy vine load into crown, main tree tipped over
1T15	Black locust	Robinia pseudoacacia	14	Poor	Extensive vines into crown of tree, dead secondary trunk
1T16	Bradford pear	Pyrus calleryana	6	Fair	Vines in lower canopy, broken branches, growing on slope
1T17	Eastern cottonwood	Populus deltoides	12	Fair	Minor dead branches, minor vines on trunk
1T18	Common persimmon	Diospyros virginiana	2	Fair	Irregular trunk
1T19	Black cherry	Prunus serotina	4	Fair	Lean, broken branches
1T20	Black cherry	Prunus serotina	5	Poor	Overtopped by vines, trunk dammage
1T21	Callery pear	Pyrus calleryana	9	Fair	With vines, secondary leaders 7.5" & 2"
1T22	Willow oak	Quercus phellos	32	Good	
1T23	Willow oak	Quercus phellos	30	Good/Fair	Fused with a sweetgum
1T24	Willow oak	Quercus phellos	32	Good	
1T25	Willow oak	Quercus phellos	35	Good	
1T26	Willow oak	Quercus phellos	32	Good	
1T27	Willow oak	Quercus phellos	31	Fair	Reduced canopy
1T28	Willow oak	Quercus phellos	34	Good	
1T29	American elm	Ulmus americana	5	Good	
1T30	Persimmon	Diospyros virginiana	2	Good	
1T31	Siberian elm	Ulmus pumila	1	Good	
1T32	Siberian elm	Ulmus pumila	1	Fair	
1T33	Siberian elm	Ulmus pumila	1	Poor	Trunk rot
1T34	Siberian elm	Ulmus pumila	6	Fair	Trunk rot
1T35	Siberian elm	Ulmus pumila	6	Good	
1T36	Staghorn sumac	Rhus typhina	1	Fair	
1T37	Staghorn sumac	Rhus typhina	1	Fair	
1T38	Staghorn sumac	Rhus typhina	1	Fair	
2T1	Hawthorn sp.	Crataegus sp.	3	Good/Fair	deadwood
2T2	Hawthorn sp.	Crataegus sp.	3	Poor	half dead
2T3	Hawthorn sp.	Crataegus sp.	3	Good/Fair	deadwood
2T4	Willow Oak	Quercus phellos	10	Good/Fair	deadwood
2T5 2T6	Black Willow	Salix nigra	7	Fair	deadwood, vines, 6" and 5" secondary leaders
	White Mulberry	Morus alba	9	Good	
2T7	Eastern Red Cedar	Juniperus virginiana		Good	
2T8 2T9	White Mulberry	Morus alba Morus alba	6	Good	
219 2T10	White Mulberry	Taxus baccata	3 4	Good	ngunod
2T11	Common Yew Common Yew	Taxus baccata Taxus baccata	4	Good Good	pruned pruned
2T12 2T13	Common Yew Common Yew	Taxus baccata Taxus baccata	4	Good Good	pruned pruned
2T14	Common Yew	Taxus baccata Taxus baccata	4	Good	pruned pruned
2T15	Common Yew	Taxus baccata	4	Good	pruned pruned
2T16	Small-Leaved Lime	Tilia cordata	15	Good	pruneu
2T17	Smokebush	Cotinus coggygria	2	Fair	deadwood
2T18	Bradford Pear	Pyrus calleryana	11	Good	ucauwoou
2T19	Red Pine	Pinus resinosa	10	Good	
2T20	Red Pine	Pinus resinosa	10	Good	
2T21	Red Pine	Pinus resinosa	8	Good	
2T22	Red Pine	Pinus resinosa	8	Good	
2T23	Red Pine	Pinus resinosa	8	Good	
2T24	Red Pine	Pinus resinosa	10	Good	
2T25	Red Pine	Pinus resinosa	12	Good	
2T26	Red Pine	Pinus resinosa	10	Good	
2T27	Red Pine	Pinus resinosa	6	Good	
2T28	Red Pine	Pinus resinosa	7	Good	
2T29	Small-Leaf Lime	Tilia cordata	14	Good	
2T30	Japanese Pagoda	Styphnolobium japonicum	17	Fair/Poor	extensive deadwood
2T31	Japanese Pagoda	Styphnolobium japonicum	11	Fair	deadwood
2T32	Japanese Pagoda	Styphnolobium japonicum	15	Fair	deadwood
2T33	Red Pine	Pinus resinosa	11	Fair	heavy vines
2T34	Red Pine	Pinus resinosa	13	Fair	10" secondary leader, heavy vines
2134	nea rine	i iiius i csiiiosu		1 011	10 Secondary reduct, neavy vines

Tree ID*	Common Name	Scientific Name	DBH	Condition	Comment
2T35	Tree of Heaven	Ailanthus altissima	6	Fair	heavy vines
2T36	Common Persimmon	Diospyros virginiana	7	Good	
2T37	Hackberry	Celtis occidentalis	6	Poor	extensive deadwood
2T38	Tree of Heaven	Ailanthus altissima	8	Fair	broken leader
2T39	Tree of Heaven	Ailanthus altissima	6	Fair	vines
2T40	Common Persimmon	Diospyros virginiana	2	Good	
2T41	Hackberry	Celtis occidentalis	3	Fair	heavy vines
2T42	Common Persimmon	Diospyros virginiana	6	Good	
2T43	Common Persimmon	Diospyros virginiana	3	Good	
2T44	Common Persimmon	Diospyros virginiana	3	Good	
2T45	Siberian Elm	Umus pumilla	24	Fair	heavy vines
2T46	Tree of Heaven	Ailanthus altissima	12	Fair	deadwood
2T47	Tree of Heaven	Ailanthus altissima	5	Good	
2T48	Tree of Heaven	Ailanthus altissima	8	Good/Fair	deadwood
2T49	Tree of Heaven	Ailanthus altissima	4	Good/Fair	deadwood
2T50	Tree of Heaven	Ailanthus altissima	3	Good/Fair	deadwood
2T51	Tree of Heaven	Ailanthus altissima	14	Good/Fair	deadwood
2T52	Tree of Heaven	Ailanthus altissima	4	Good	
2T53	Tree of Heaven	Ailanthus altissima	2	Good	
2T54	Black Locust	Robinia pseudoacacia	14	Fair/Poor	extensive trunk damage
2T55	Tree of Heaven	Ailanthus altissima	6	Fair	deadwood
2T56	Tree of Heaven	Ailanthus altissima	5	Fair	deadwood
2T57	Tree of Heaven	Ailanthus altissima	5	Fair	deadwood
2T58	Tree of Heaven	Ailanthus altissima	8	Fair/Poor	extensive deadwood
2T59	Tree of Heaven	Ailanthus altissima	13	Poor	extensive deadwood, broken leader
2T60	Willow Oak	Quercus phellos	2	Fair	deadwood, sprouting
2T61	Willow Oak	Quercus phellos	2	Poor	mostly dead
2T62	Willow Oak	Quercus phellos	2	Fair/Poor	deadwood, sprouting
2T63	Red Maple	Acer rubrum	2	Poor	mostly dead
2T64	Bradford Pear	Pyrus calleryana	2	Good	
2T65	Red Maple	Acer rubrum	2	Fair/Poor	extensive deadwood
2T66	Red Maple	Acer rubrum	2	Fair/Poor	extensive deadwood
2T67	Kentucky Yellowwood	Cladrastris kentukea	2	Good	
2T67 2T68	Kentucky Yellowwood Kentucky Yellowwood	Cladrastris kentukea Cladrastris kentukea	2	Good Fair	deadwood, trunk damage
	•				deadwood, trunk damage deadwood, trunk damage
2T68	Kentucky Yellowwood	Cladrastris kentukea	2	Fair	
2T68 2T69	Kentucky Yellowwood Kentucky Yellowwood	Cladrastris kentukea Cladrastris kentukea	2	Fair Fair	
2T68 2T69 2T70	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus	2 2 2	Fair Fair Good	
2T68 2T69 2T70 2T71	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus	2 2 2 2 2 2	Fair Fair Good Good Good Fair/Poor	
2T68 2T69 2T70 2T71 2T72	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus	2 2 2 2 2	Fair Fair Good Good Good	deadwood, trunk damage
2T68 2T69 2T70 2T71 2T72 2T73	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus	2 2 2 2 2 2	Fair Fair Good Good Good Fair/Poor	deadwood, trunk damage extensive deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus	2 2 2 2 2 2 2 2	Fair Fair Good Good Good Fair/Poor Fair/Poor	deadwood, trunk damage extensive deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila	2 2 2 2 2 2 2 2 7	Fair Fair Good Good Good Fair/Poor Fair/Poor Good	deadwood, trunk damage extensive deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima	2 2 2 2 2 2 2 2 7 3	Fair Fair Good Good Good Fair/Poor Fair/Poor Good Good	deadwood, trunk damage extensive deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima	2 2 2 2 2 2 2 7 3 3	Fair Fair Good Good Good Fair/Poor Fair/Poor Good Good Good	deadwood, trunk damage extensive deadwood
2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima	2 2 2 2 2 2 2 7 3 3 4	Fair Fair Good Good Good Fair/Poor Fair/Poor Good Good Good Good	deadwood, trunk damage  extensive deadwood extensive deadwood
2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2778 2779 2780 2781	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima	2 2 2 2 2 2 2 7 3 3 4 8 6	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T81	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ribina pseudoacacia	2 2 2 2 2 2 7 3 3 4 8 6 3 4	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 151	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust Grounseltree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Climus americana Ailonthus altissima Robina pseudoacacia Baccharis halimifolia	2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T81	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ribina pseudoacacia	2 2 2 2 2 2 7 3 3 4 8 6 3 4	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 151	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust Grounseltree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Climus americana Ailonthus altissima Robina pseudoacacia Baccharis halimifolia	2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 1S1 1S2 1S3	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Grounseltree Groundseltree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bilanthus altissima Ulmus americana Ailanthus altissima Robina pseudoacacia Baccharis halimifolia	2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5 <1.5	Fair Fair Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 2T81 2T82 2T81 2T82	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Grounseltree Groundseltree Groundseltree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bilanthus altissima Ailanthus altissima Ailanthus altissima Bilanthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia	2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5 <1.5 <1.5	Fair Fair Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood  extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 1S1 1S2 1S3 1S4 1S5	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust Groundseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bilanthus altissima Ailanthus altissima Ulmus americana Ailanthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia	2 2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood  extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 1S1 1S2 1S3	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Grounseltree Groundseltree Groundseltree Groundseltree White Mulberry	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bainthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bainthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia	2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood  extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 1S1 1S2 1S3 1S4 1S5	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Groundseltree Groundseltree Groundseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bilanthus altissima Ailanthus altissima Ulmus americana Ailanthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia	2 2 2 2 2 2 2 7 3 3 4 8 6 3 4 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 151 152 153 154 155 156 157 158	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Grounseltree Groundseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo False Indigo	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bainthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bainthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia	2 2 2 2 2 2 2 7 3 3 4 8 6 3 4 4 1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T78 2T78 2T80 2T81 2T82 151 152 153 154 155 156 157 158	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Groundseltree Groundseltree Groundseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bacharis halimifolia Baccharis halimifolia	2 2 2 2 2 2 7 3 3 3 4 8 6 6 3 4 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 151 152 153 154 155 156 157 158	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Grounseltree Groundseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo False Indigo	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bailanthus altissima Ailanthus altissima Ulmus americana Ailanthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Amorpha fruticosa Amorpha fruticosa	2 2 2 2 2 2 2 7 3 3 4 8 6 3 4 4 1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T78 2T78 2T80 2T81 2T82 151 152 153 154 155 156 157 158	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Grounseltree Groundseltree Groundseltree Groundseltree White Mulberry Unknown Bayood False Indigo False Indigo False Indigo	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bailanthus altissima Ailanthus altissima Ailanthus altissima Bainthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Amorus alba Buxus sp. Styphnolobium japonicum Amorpha fruticosa Amorpha fruticosa	2 2 2 2 2 2 7 3 3 4 8 6 3 4 4.1.5 4.	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T78 2T78 2T80 2T81 2T82 1S1 1S2 1S3 1S4 1S5 1S6 1S7 1S8 1S9	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust Grounseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo False Indigo False Indigo Tree of Heaven	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bailanthus altissima Ailanthus altissima Ailanthus altissima Bainthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Amorus alba Buxus sp. Styphnolobium japonicum Amorpha fruticosa Amorpha fruticosa Ailanthus altissima	2 2 2 2 2 2 2 7 3 3 4 8 6 3 4 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood  extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 151 152 153 154 155 156 157 158 159 1510 1511 1512	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust Grounseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo False Indigo Tree of Heaven Tree of Heaven False Indigo Tree of Heaven Tree of Heaven Tree of Heaven Tree of Heaven Tree of Heaven Eastern Redbud Eastern Redbud	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Amorus alba Buxus sp. Styphnolobium japonicum Amorpha fruticosa Amorpha fruticosa Ailanthus altissima Ailanthus altissima	2 2 2 2 2 2 7 3 3 4 8 6 6 3 4 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood  extensive deadwood  deadwood
2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 151 152 153 154 155 156 157 158 159 1511 1512 1511	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Groundseltree Hitelandseltree Groundseltree Hitelandseltree Groundseltree	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bacharis halimifolia Baccharis halimifolia Amorus alba Buxus sp. Styphnolobium japonicum Amorpha fruticosa Amorpha fruticosa Alianthus altissima Cercis canadensis	2 2 2 2 2 2 7 3 3 4 8 6 6 3 4 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood  extensive deadwood  deadwood
2T68 2T69 2T70 2T71 2T72 2T73 2T74 2T75 2T76 2T77 2T78 2T79 2T80 2T81 2T82 151 152 153 154 155 156 157 158 159 1510 1511 1512	Kentucky Yellowwood Kentucky Yellowwood Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Kentucky Coffee Tree Siberian Elm Tree of Heaven Tree of Heaven Tree of Heaven American Elm Tree of Heaven Black Locust Grounseltree Groundseltree Groundseltree White Mulberry Unknown Boxwood Japanese Pagoda False Indigo False Indigo Tree of Heaven Tree of Heaven False Indigo Tree of Heaven Tree of Heaven Tree of Heaven Tree of Heaven Tree of Heaven Eastern Redbud Eastern Redbud	Cladrastris kentukea Cladrastris kentukea Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Gymnocladus dioicus Ulmus pumila Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Ailanthus altissima Bacinatis altissima Robina pseudoacacia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Baccharis halimifolia Amorus alba Buxus sp. Styphnolobium japonicum Amorpha fruticosa Amorpha fruticosa Ailanthus altissima Ailanthus altissima Cercis canadensis Cercis canadensis	2 2 2 2 2 2 7 3 3 4 8 6 3 4 4.1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5	Fair Fair Good Good Good Fair/Poor Good Good Good Good Good Good Good G	deadwood, trunk damage  extensive deadwood extensive deadwood  deadwood

## APPENDIX D: MARYLAND STREAM MITIGATION FRAMEWORK (MSMF) CALCULATOR RESULTS

STREAM IMPACT CALCULATOR														
			Corps P Date: Sponsor Collabo		6-Apr-25			TOTAL STREAM LOSSES (Functional Feet)			-54			
Raw Change in Reach									Stream Impact Adjustments					
<u>Reach Name</u>	Physiographic Region	Evaluation	<u>Activity</u>	Resource Type	Reach Length (feet)	Stream Guality	<u>Channel</u> <u>Thread</u>	<u>Drainage</u> <u>Area</u> (sami)	Raw Reach Value (Functional Feet)	Raw Change in Value (Functional Feet)	<u>Site</u> <u>Sensitivity</u>	Mitigation Ratio	Stream Losses (Functional Feet)	REMARKS (Include reach coordinates)
1WA -	Coastal Plain	Existing	Preliminary Resource Evaluation	Perennial Headwater	112	26%	Primary 1	0.1	12		<b>0</b>	Proposed Mitigation Type	-15	
	Coastal Plain	Proposed	Fill	Perennial Headwater	112	0%	Primary 1	0.1	0	-12	0	Mitigation Bank		
1WB	Coastal Plain	Existing	Preliminary Resource Evaluation	Intermittent	187		Primary	0.1	30	-30	0	Proposed Mitigation Type	-39	
	Coastal Plain	Proposed	Fill	Select from Dropdown	187	38%	Primary 1	0.42 0.1 0.42	0		0	Mitigation Bank		

ppendix E	Key Bridge Rebuild Project Compensatory Mitigation Plan
	APPENDIX E: MITIGATION BANK CREDIT AVAILABILITY

#### Ecotone UMBI - Pheasant Run wetland and stream bank

Chair: USACE Instrument signed by: USACE USACE District Baltimore FWS Field Office: Chesapeake Bay NMFS Region: Northeast Eastern States

Northeastern States District Office **BLM District Office:** 

State: Maryland Baltimore [MD] County: USACE Permit/Tracking No.: 2019-00180 Total Acres: 44.00

Status/Date: Approved 05 09/30/2024 Establishment Date: Type: On Public Lands: Private Commercial

On Tribal Lands: Mo

West of Baldwin Mill Rd, North of Patterson Rd, Baldwin, Baltimore County, MD 21013. MBI approval. Initial credit release pending for receipt of Comments:

#### Bank Credit Classifications

Wetland
PFO - Palustrine Forested Stream

• Egherneral Stream

• Functional Feet

- Intermittent Stream
   Perennial Stream

#### Contact Information

Bank Sponeor Organization Ecotone, LLC 4 North Park Dt., Ste 210 Cockeysville, MD 21030 Phone: (410) 420-2800

Fax: (410) 420-6983 Bank Sponsor POC

Patrick Crossley - Consultant 4 North Park Drive, Suite 210 Cockeysville, MD 21030

Email: pcrossley@ecotoneinc.com

#### Chandler Denison - Sales POC

Ecotone, Inc 4 North Park Dr. Ste 210 Cackeysville, MD 21030 Email: adenison@eaotoneinc.c Phone: (410) 420-2600 X 175 Cell Phone: (443) 785-0053

## Jim Elsenhardt - Consultant Director

#### Karley Routh - Sponsor

4 North Park Drive Suite 210 Cockeysville, MD 21030 Email: krouth@ecotoneinc.com

Regulatory Bank Manager Nick Ozburn 2 Hopkins Piaza Baltimore, MD 21201 Ernail: Nicholas.R.Ozburn@ussice.army.mil Cell Phone: (410) 395-4662

## OpenLayers Map [Show Help ] [Map Control ] [Maximize Map ] [Download KML] USACE Districts ■ ▼ States # + FWS Field Offices ■▼ NMFS Regions ... BLM State Offices ■▼ BLM District Offices BLM Field Offices ■v Counties ■ + HUC 8 # Show Service Area Active Service Areas Only O All Service Areas Rank Primary Secondary

#### Credit Ledger Summary

Credit reservations and pending transactions are NOT reflected in the Available Credits total. Potential purchasers MUST contact the Sponsor to verify credit availability.

Credit Classification	Juriediction	Available Credits	Withdrawn Credits	Released Credits	Potential Credits	Percent Released
Wetland		TATAL PARTY				
PFO - Palustrine Forest	ted Federal	9.6925	0	9.6925	25.85	37.5%
Stream						
Functional Feet	Federal	801	0	801	2135	37.5%

### Peige Wetland Mitigation Bank

Instrument signed by: USACE District: FWS Field Office: Baltimore Chesapeake Bay NMFS Region: BLM State Office: Northeast Eastern States

BLM District Office: Northeastern States District Office Maryland State:

Baltimore [MD] County: USACE Permit/Tracking No.: 2016-01568 Total Acres: 14.00 Status/Date: ed 12/10/2020 Approved 12 12/10/2020 Establishment Date: Type: On Public Lands: Private Commercial

No Site Address: 701 Luthardt Road, Middle River, MD Comments:

#### Bank Credit Classifications

#### Contact Information

Bank Sponeor Organization Ecotone, LLC 4 North Park Dr., Ste 210 Cockeysville, MD 21030 Phone: (410) 420-2600 Fax: (410) 420-6963

Bank Sponsor POC Patrick Crossley - Sponsor 4 North Park Drive, Suite 210 Cockeysville, MD 21030 Email: pcrossley@codoneinc.com

#### Chandler Denison - Sales POC

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## Jim Elsenhardt - Consultant Director

## Karley Routh - Sponsor Ecotone Inc.

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Cockeysville, MD 21030
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Regulatory Bank Manager Nick Ozbum 2 Hopkins Pisza Baltimore, MD 21201 Email: Micholas R Ozbum@usace.amm/.mil Cell Phone: (410) 395-4882

#### Erica Schmidt

2 Hopkins Plaza Baltimore, MD 21201 Email: erica.schmidt@usace.army.mil. Phone: (410) 962-6029



#### Credit Ledger Summary

#### Last Transaction: Jun 27,2025

#### \*\*\*ATTENTION\*\*\*

Credit reservations and pending transactions are NOT reflected in the Available Credits total. Potential purchasers MUST contact the Sponsor to verify credit availability.

Credit Classification	Juriediction	Credita	Credite	Credits	Credita	Released
Wetland	A. Carleston Color	La Talalla		and the law in		
PFO - Palustrine Fores	ted Federal	.65067	8.61803	9.2687	14.24	65.1%