



**PROSPECTUS
FOR THE PROPOSED**

MIDDLE JAMES REGIONAL ENVIRONMENTAL BANK

Sponsor Information:
Mitigation Services, Inc.
12811 Randolph Ridge Lane
Manassas, Virginia 20109

Prepared By/Authorized Agent:
Angler Environmental
106 North Thompson Street
Richmond, Virginia 23221
(804) 353-6017

October 2, 2008

I. SUMMARY

Mitigation Services, Inc. (hereinafter, the “Sponsor”) hereby proposes to establish and sponsor the Middle James Regional Environmental Bank (hereinafter, the “Bank”), to be located in central Virginia. The proposed Bank will include two (2) sites located within Buckingham and Amelia Counties, which encompass approximately 2,151 acres and 76,047 linear feet of stream channel. Presently, the Eastview Farm Bank site located in Buckingham County remains an active cattle farm. The historic use of the Amelia Springs Bank site found in Amelia County is silviculture. However, the majority of the site has been cleared for farming activities including livestock grazing. The intent of the Bank is to provide compensatory stream and wetland mitigation credits designed to offset authorized unavoidable impacts within the proposed mitigation service area of the James River Watershed. The Bank is proposed to serve areas within Hydrologic Unit Codes (HUC) 02080203, 02080204, 02080205, 02080207, and a portion of 02080206. This proposed service area will be comprised of approximately 39 different sub-watersheds of the James River Watershed.

With this prospectus, the Sponsor proposes to include two (2) initial Bank sites that will generate an estimated credit amount of 40,226 stream credits from the preservation, enhancement, and restoration of stream resources and 37.17 wetland credits through both preservation and creation of wetland resources at these sites. The two (2) sites were selected after completion of a comprehensive evaluation of the entire watershed, to identify sites that will provide the greatest benefit to the watershed and surrounding community through their inclusion in the Bank. The Sponsor proposes to develop additional sites, not included in this prospectus, with this Bank in the future.

II. BANK OBJECTIVES

The overall goal of the Bank is to fully compensate for authorized losses to streams, wetlands, and other aquatic resource functions in a manner that best contributes to the long-term ecological health of the James River Watershed. The Bank sites are located within the largest and most diverse portion of the James River watershed. With the diversity of the Middle James Watershed, comes many valuable natural areas, historical areas and resources. Much of the land use in this watershed includes agricultural activities, and thus many of the stream systems are directly affected by cattle intrusion and receive non-point source pollution from agricultural practices.

As a result, bank erosion, incision, headcuts, sedimentation, and the loss of benthic habitat and forested buffers are prevalent on the Bank sites. The restoration and enhancement areas of the Bank will aim to alleviate this problem by restoring degraded stream channels and agricultural fields located on the Bank sites to higher value natural aquatic resource areas. These areas will be designed to replace the chemical, physical, and biological function of wetlands, stream channels, and open water areas within the proposed service area that are lost as a result of authorized impacts.

Furthermore, the Bank will provide protection of these aquatic resources in perpetuity, preventing future impacts.

III. DESCRIPTION OF BANK SITES

A. LOCATION AND CURRENT USE

Eastview Farm

The Eastview Farm Bank site is located along State Route 602, north of the Town of Mount Vinco, and encompasses intermittent tributaries associated with Walton Fork and Ripley Creek. Approximately 12,387 linear feet of stream channel are present within the property limits. *Location*, *Vicinity*, and *Aerial* maps have been provided for reference, along with a *Mitigation Feasibility Map* depicting the anticipated stream restoration, enhancement and preservation, as well as riparian buffer preservation and buffer planting areas associated with the project (Appendix A and B, respectively). A majority of the project site has been cleared with only scattered trees and partial buffers existing along onsite stream channels. Due to the current use of the site as an active cattle farm and the absence of protective fencing and an alternative water source, livestock have been provided direct access to onsite stream channels. Therefore, as an important mitigation measure, the cattle will be excluded from the streams and the Sponsor will work with the landowner to establish an alternative water source on his property.

Amelia Springs

The Amelia Springs Bank site is located along Amelia Springs Road, northeast of the Town of Deatonville, and encompasses Little Creek, and portions of Neats Creek and Flat Creek. Approximately 63,660 linear feet of stream channel are present within the property limits. *Location*, *Vicinity*, and *Aerial* maps have been provided for reference, along with a *Mitigation Feasibility Map* depicting the anticipated stream restoration, enhancement and preservation, as well as riparian buffer preservation and buffer planting areas associated with the project (Appendix C and D, respectively). The majority of the site is forested with some areas having evidence of recent timbering.

B. FEASIBILITY AND BASELINE DATA

Prior to preparation of this document and the decision to pursue development of the Bank on these sites, the Sponsor conducted a preliminary feasibility investigation for the sites to gather baseline data and to assess the sites potential for support mitigation. Based on the results of these investigations, preliminary data suggests that the restoration/enhancement of stream channels is feasible on each Bank site. All relevant data, analyses, modeling, and engineering calculations will be provided to the Mitigation Bank Review Team (MBRT) as part of the Mitigation Banking Instrument (MBI) approval process.

Prior to submitting subsequent banking documents, the Sponsor will prepare and submit a *Water of the U.S.* delineation to the U.S. Army Corps of Engineers for review and approval. In addition, as appropriate, the Sponsor will conduct threatened and endangered specie surveys as part of the Bank development process. Likewise, the Sponsor will evaluate opportunities to enhance/restore suitable habitat for identified species near the Bank sites as part of the mitigation work.

Several onsite streams at both Bank sites are in need of restoration and/or enhancement. The streams proposed for restoration and enhancement activities exhibit actively eroding banks, stream incision, instabilities due to tortuous meander bends, mid-channel bars and excessive debris jams, headcuts, and a lack of floodplain access. Restoration and enhancement objectives include correcting instabilities due to unstable pattern, profile, and dimension. These activities may include stabilizing eroding banks through grading and vegetation, creating bankfull benches to allow the stream floodplain access, narrowing the stream where it has become overwidened, the installation of in-stream rock and log structures to control grade and direct flow away from the banks, relocating particularly unstable meander bends, removing debris jams and stabilizing existing and potential headcuts.

Along all onsite streams on the Eastview Farm and Amelia Springs Bank sites, mature forested riparian buffers will be preserved where they currently exist. Where shrub and canopy layers are absent, a forested buffer will be re-established through the planting of woody species along both sides of the stream as depicted on the *Mitigation Feasibility* map.

As the attention on water quality in the James watershed has increased over the past several years, Buckingham and Amelia Counties have both worked to incorporate conservation measures into the County's Comprehensive Plan. Goals of this plan include protecting, providing and restoring riparian buffers and diverse wildlife habitats, protecting stream channel processes, and restoring water quality and stream health. The completion of this project would help accomplish those goals. Riparian reforestation and stream bank plantings will further enhance water quality and stream function by filtering nutrient and sediment loads derived from adjacent land uses, eliminating bank-derived sediment, and improving the overall stream/landscape connection. These activities will act to improve onsite and downstream water quality by decreasing bank erosion, in-stream sedimentation, and nutrient loading and improving in-stream and riparian vegetation and wildlife habitat.

Eastview Farm

The streams onsite are part of the Slate River watershed, which is in the Middle James River Basin. The Slate River Dam Watershed serves as the primary water source for the Buckingham County's public water system. The Slate River watershed, specifically the areas downstream from the Bank site, has been identified as a 303(d) Impaired (Category 5) water. The reach failed for *Polychlorinated biphenyls (PCB)* and DEQ identified suspected sources as contaminated sediments and other unknown sources. Since the Bank site is located a significant distance upstream from the contamination location, activities within the immediate watershed most likely did not contribute to the impairment of the channel. However, since the site is an active cattle farm, the proposed mitigation project will exclude cattle from all mitigation areas. This will not only remove a potential source of fecal coliform from the stream, but will also eliminate areas of erosion and unvegetated banks caused by livestock trampling the stream banks.

The Virginia Department of Game and Inland Fisheries (DGIF) online database revealed that the several species of fish and birds species considered to be of elevated concern are located within a 2-mile radius of the Eastview Bank site. These species are listed at a Tier IV priority for the Virginia Wildlife Action Plan, indicating a Moderate Conservation Need. The American eel (*Anguilla rostrata*), which is listed

at a Tier IV priority, is considered an aquatic species of greatest conservation need with migratory habits. Suitable habitat for several of these species are likely present onsite and/or near the Bank site.

Virginia Department of Conservation and Recreation's (DCR's) Virginia Conservation Lands Needs Assessment Vulnerability (VCLNA) model designed to anticipate urban, suburban and rural growth based on potential future land use ranks the project site a '8' for vulnerability to growth on a scale of '1' to '8', with '1' indicating a low threat of growth and '8' indicating the highest threat. In order to protect the Eastview Farm Bank site from future development, the landowner is considering placing the entire parcel under a conservation easement. The Natural Landscape Blocks and Corridors VCNLA model illustrates how the property currently does not contain a large percentage of natural habitat areas; however, the site is in close proximity to ecological cores and will provide a connection to adjacent natural landscape blocks. With the addition of the natural habitat created and preserved on the project site, these areas can be enhanced and expanded to cover a larger portion of the region. Graphic depictions of the VCNLA models are on the attached *Virginia Conservation Lands Needs Assessment Models Map in Appendix E*.

Based on a review of the Virginia Department of Historic Resources (VDHR) Data Sharing System (DSS) website, there are no known archeological resources that would be affected by development of this Bank site. One (1) architectural historic resource has been identified near the Bank site. Project activities, however, will not affect the view shed of this resource due to State Route 601 that borders both parcels, the existing buffer on the identified property and the location of the proposed mitigation work on the Eastview Bank site. No further coordination is anticipated for historic resources.

Amelia Springs

The streams onsite are part of the Flat Creek watershed, which is in the Middle James River Basin. The Flat Creek watershed, specifically from the headwaters to the confluence with Nibbs Creek, has been identified as a 303(d) Impaired (Category 5) water. The reach failed for *Escherichia coli* (*E. coli*) and DEQ identified suspected sources as grazing in riparian or shoreline zones, livestock (grazing or feeding operations), sewage discharges in unsewered areas, municipal point source discharges and other unknown sources. Historical land use involving both cattle grazing, agriculture and failing septic systems within the surrounding communities have led to the impairment of this stream system. The proposed mitigation project will provide valuable forested buffers that will not only provide a water quality benefit by reducing the contaminants transported into the streams, but will also eliminate areas of erosion and unvegetated banks caused by runoff.

The Virginia Department of Game and Inland Fisheries (DGIF) online database revealed the presence of the bridle shiner (*Notropis bifrenatus*) downstream of the Amelia Springs Bank site within Flat Creek. The status of this species is listed as a species of State special concern, in addition to a Tier I priority for the Virginia Wildlife Action Plan, indicating a Critical Conservation Need. No specific conservation strategies have been identified for the bridle shiner; however, according to the Virginia's Comprehensive Wildlife Conservation Strategy (Virginia Department of Game and Inland Fisheries), stream channel restoration has been identified by the Taxonomic Advisory Committee as a suitable activity. In addition, impairment from

fecal coliform is known to affect this species, and in turn, the proposed mitigation activities can lead to improvements in stream habitat both onsite and downstream from the Bank site.

Virginia Department of Conservation and Recreation's (DCR's) Virginia Conservation Lands Needs Assessment Vulnerability (VCLNA) model designed to anticipate urban, suburban and rural growth based on potential future land use ranks the project site a '6' for vulnerability to growth on a scale of '1' to '8', with '1' indicating a low threat of growth and '8' indicating the highest threat. In order to protect the Amelia Springs site from future development, the landowner will be placing the entire parcel under a conservation easement. The Natural Landscape Blocks and Corridors VCNLA model illustrates how the property is in close proximity to highly valuable ecological cores and provides a connection to adjacent natural landscape blocks. With the addition of the natural habitat created and preserved on the project site, these areas can be expanded to cover a larger portion of the region. Graphic depictions of the VCNLA models are on the attached *Virginia Conservation Lands Needs Assessment Models Map in Appendix F*.

Based on a review of the Virginia Department of Historic Resources (VDHR) Data Sharing System (DSS) website, one (1) known archeological and architectural combined resource has been identified on a portion of the Bank site. The Amelia Springs Battlefield is located within the southern portion of the property, which will include areas of riparian buffer planting and preservation, as well as a small area proposed for stream restoration. Due to the existing silviculture activities on the property, both past and present, it is anticipated that the Amelia Springs Battlefield would not be affected by development of this Bank site. In addition, based on the current impaired condition of Flat Creek that borders the southern property boundary, enhancement of the Bank site can lead to increased benefits in water quality and can reduce bank erosion, in-stream sedimentation, and nutrient loading, and therefore improving the overall in-stream and wildlife habitat. Based on the proposed mitigation activities, no further coordination is anticipated for historic resources.

IV. MITIGATION METHODS

Stream mitigation credits will be established through the restoration, enhancement, and preservation of stream channels, as well as the re-establishment, enhancement and preservation of adjacent vegetated riparian buffers, livestock exclusion from the channels and watershed protection for the channels. Wetland mitigation credit will be established through the creation and preservation of wetlands, as well as the preservation of adjacent forested wetlands and upland buffers. The Sponsor has entered into agreement with the current landowners to develop a mitigation bank on both of these properties, and will be responsible for the monitoring and maintenance of the mitigation areas to ensure the success of the sites.

Stream restoration and enhancement will be based on a natural channel design process. The pattern, profile, and dimension of the channels will be modified, as necessary, to allow the stream to transport sediment in an efficient manner and remain stable (neither aggrading nor degrading). Designs will be based on the geomorphic characteristics of a stable reference condition. Techniques to accomplish this goal include cross-section and pattern alterations, bank stabilization and bioengineering techniques, grade control and in-stream structures, streambank plantings, and the establishment and/or

preservation of forested riparian buffers. More traditional engineering techniques (e.g. hardened materials) will be used only when site constraints require that these materials be used in order to protect existing infrastructure, ensure the stability of the systems, and maintain the integrity of the watershed. The Unified Stream Methodology (USM) (January 2007 or most recent version) will be used to calculate the stream compensation credits generated at each of the Bank sites.

V. OPERATION OF THE BANK

The Sponsor will prepare and submit a Mitigation Banking Instrument (MBI) to establish the Bank. The MBI, as well as the development and operation of the Bank, will be in accordance with all applicable Federal, Commonwealth of Virginia, and local statutes, regulations, and guidance.

In addition, the Sponsor will submit a detailed Site Development Plan (SDP) that will present clear goals and objectives for each Bank site. The SDP will contain details for each of the Bank sites based on site specific data and modeling, including detailed soil and geotechnical information, groundwater and rainfall data, existing wetland and stream channel assessments, stream geomorphological surveys, and a detailed water budget analyses as applicable. Stream and wetland mitigation credit will be determined using an assessment method approved by the MBRT.

A. GEOGRAPHIC SERVICE AREA

The Bank sites are located in Buckingham and Amelia Counties in the middle James Hydrologic Unit Codes (HUC) 02080203 and 02080207. The service area for the Bank will incorporate HUC's 02080203, 02080204, 02080205, 02080207, and a portion of 02080206, which includes portions of Greene, Louisa, Albemarle, Fluvanna, Nelson, Buckingham, Amherst, Bedford, Campbell, Appomattox, Cumberland, Goochland, Powhatan, Chesterfield, Amelia, Prince Edward, Nottoway, Dinwiddle, Hanover, Henrico Counties, as well as the Cities of Richmond, Lynchburg, Charlottesville, Colonial Heights, Hopewell and Petersburg.

The proposed service area of the Bank is consistent with the current and proposed Commonwealth of Virginia statutes and regulations governing mitigation banks, including VWPP regulations (Code of Virginia § 33.1-223.2:1 and 9 VAC 25-210-10 et seq.). A *Service Area Map* for the Bank is provided as Appendix G.

B. PERMITS

Development of the Bank, including all construction activities, will be performed in a manner that will avoid and minimize both temporary and permanent adverse effects on the environment to the greatest extent practicable. Impacts to small areas of existing, degraded stream channels and wetlands may be required for the implementation of simple water control features, hydrologic barriers, and/or stream channel restoration activities. The Sponsor, as part of the Bank approval process, will obtain any necessary Clean Water Act (CWA) and/or VWPPP permits, as well as all applicable local permits.

C. LONG TERM MONITORING AND MAINTENANCE

The Sponsor controls all of the currently proposed Bank sites and will be responsible for a monitoring and maintenance period following construction of the mitigation areas to ensure success of the mitigation plan.

Following construction activities, the Sponsor will implement a monitoring plan to ensure that the hydrology, vegetation, and stability success criteria are being met. The monitoring plan will be detailed in the SDP for each Bank site, and will be in accordance with Section II.E. of the Federal Banking Guidance. Determinations regarding specific performance criteria, other long-term monitoring and/or management activities, the operational life of the Bank, potential remedial actions and financial assurances will be similarly developed and contained in the MBI and SDP for each Bank site.

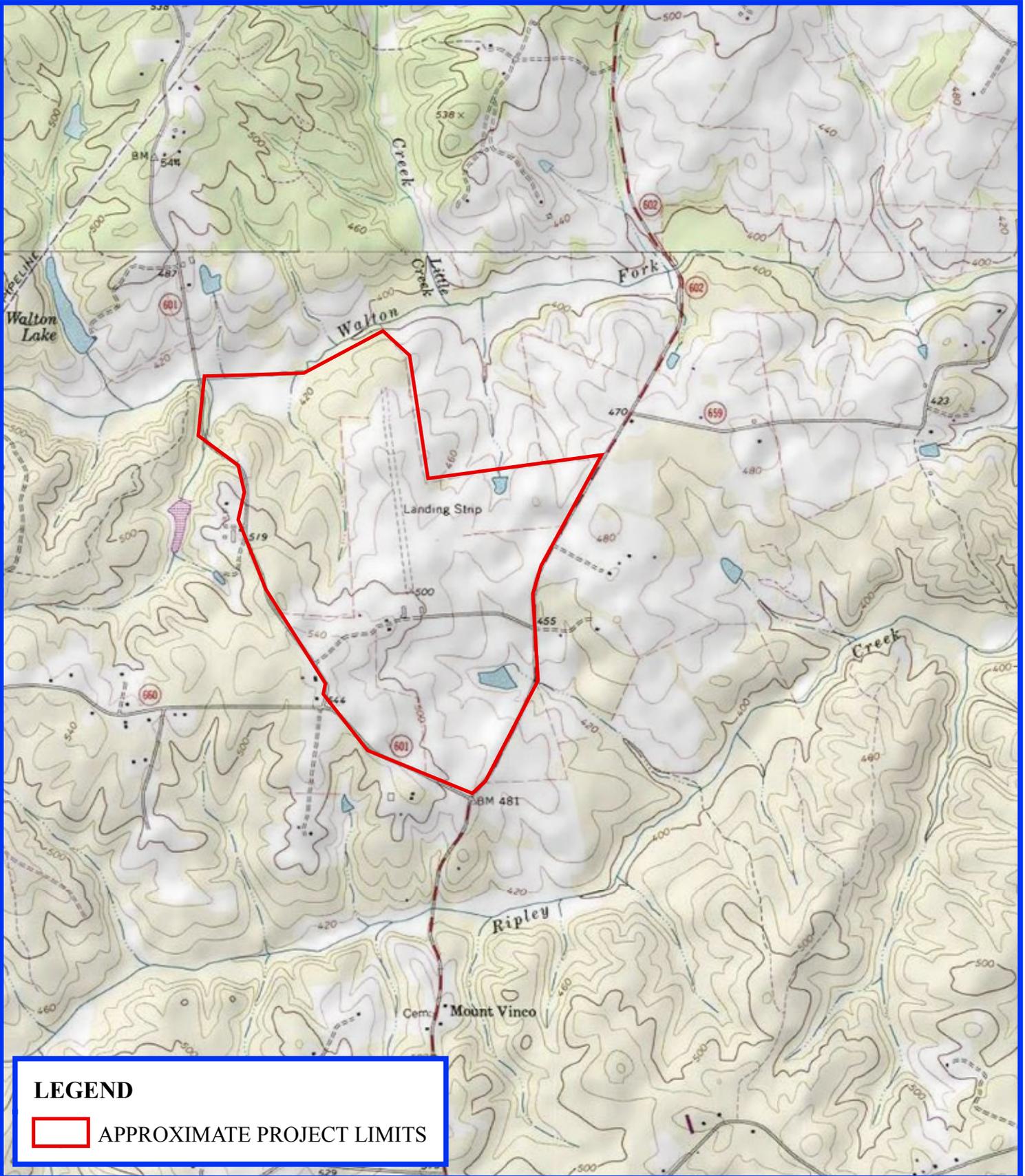
A restrictive covenant, or other equivalent instrument, will be recorded on the Bank sites in the County land records prior to the sale of any credits from the Bank, to assure preservation of these lands in perpetuity.

VI. PLANNED PRE-APPLICATION PROCESS

The sponsor plans to meet with the MBRT prior to the submission of a MBI for the Bank and SDP for each site to discuss plans for the Bank. This document will serve as the basis for discussion. The Sponsor also welcomes the opportunity to meet with other interested parties to discuss the plans for the Bank.

APPENDIX A

Project Location, Vicinity, and Aerial Imagery Maps (Eastview Farm)



LEGEND

 APPROXIMATE PROJECT LIMITS



CORPORATE | 12811 RANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
 P: 703.393.4844 | F: 703.393.2934
 RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23221
 P: 804.353.6017 | F: 804.353.6018

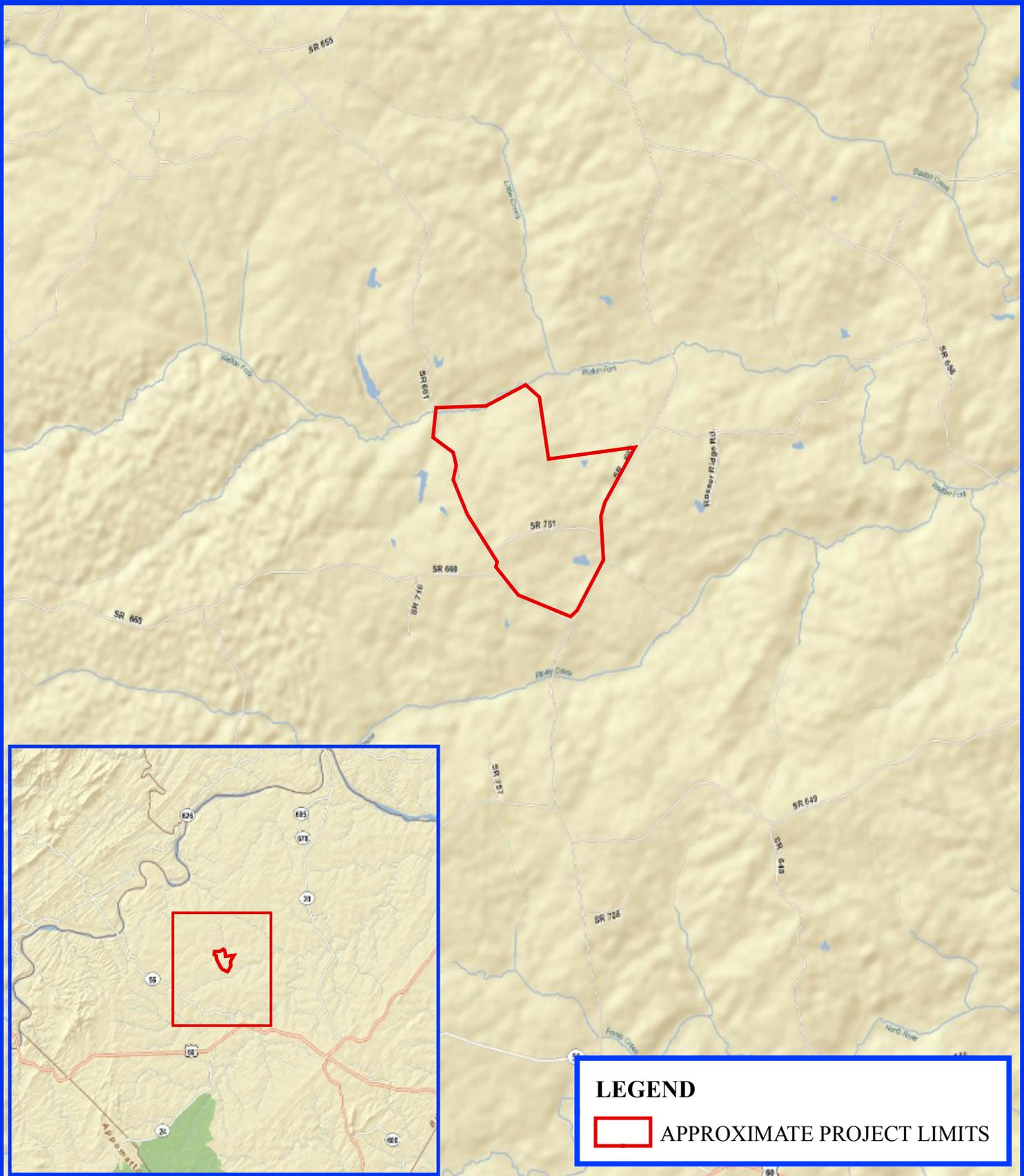
PROJECT LOCATION MAP

**MJREB – EASTVIEW FARM
 BANK SITE**

BUCKINGHAM COUNTY, VA

USGS Topo Quads: Buckingham, VA
Latitude: 37°36'43"
Longitude: 78°36'14"
Approx. Project Area: 521.0 acres
Elevation: 420' – 550'
Scale: 1 inch equals 2,000 feet
Source: NRCS DataGateway





LEGEND

 APPROXIMATE PROJECT LIMITS



ANGLER
ENVIRONMENTAL

CORPORATE | 12811 RANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
P: 703.393.4844 | F: 703.393.2934

RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23221
P: 804.353.6017 | F: 804.353.6018

VICINITY MAP

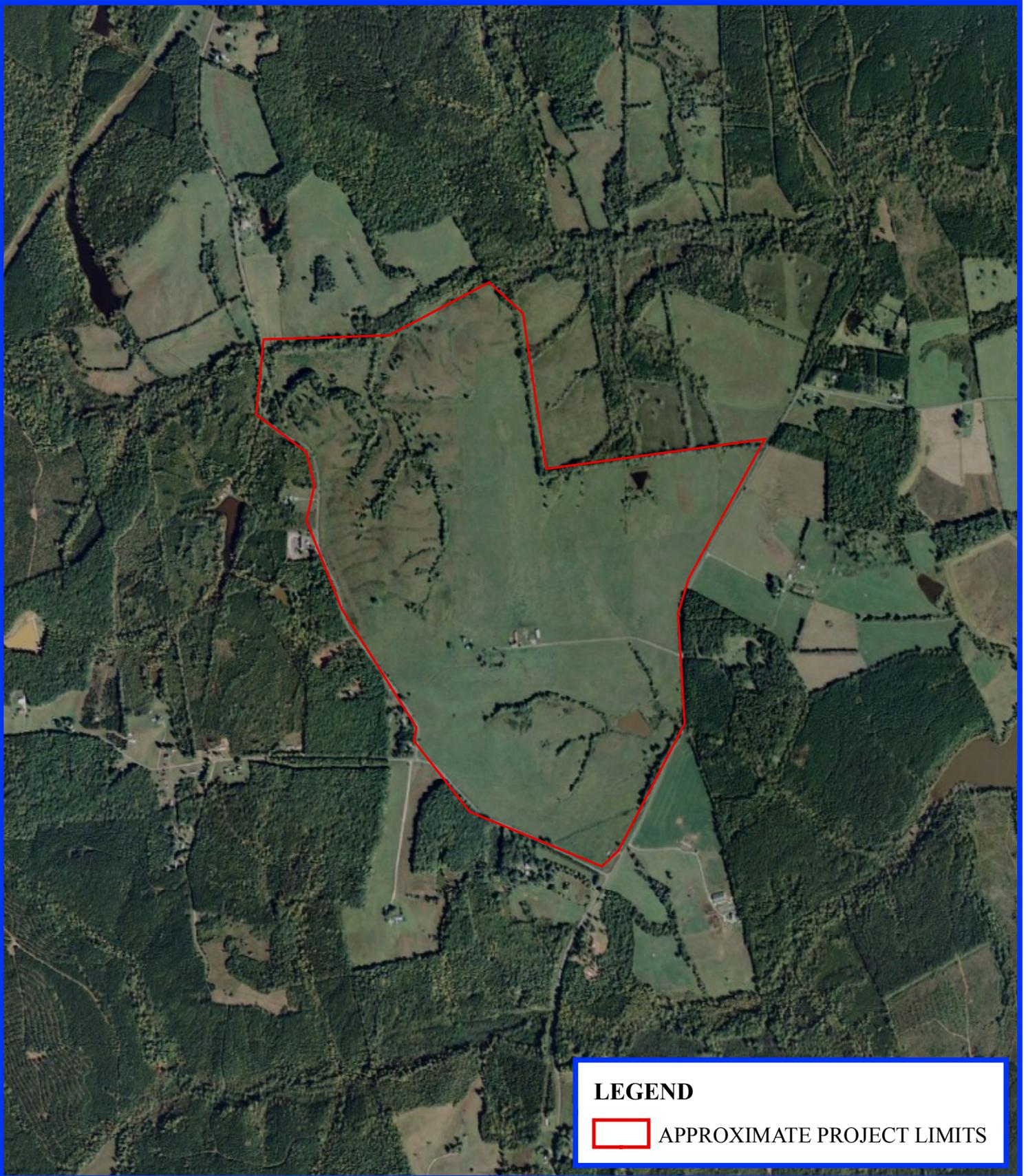
**MJREB – EASTVIEW FARM
BANK SITE**

BUCKINGHAM COUNTY, VA

1 inch equals 4,000 feet



Source:
ESRI StreetMap USA & USA Base Map
ESRI StreetMap World 2D



LEGEND

 APPROXIMATE PROJECT LIMITS



CORPORATE | 12811 RANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
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AERIAL IMAGERY

**MJREB – EASTVIEW FARM
BANK SITE**

BUCKINGHAM COUNTY, VA

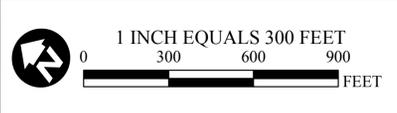
Digital Orthophoto
Source:
2006 NAIP Aerial Imagery
USDA-FSA-APFO NAIP
MrSID Mosaic
The U.S. Department of Agriculture,
Service Center Agencies

1 inch equals 1,584 feet



Appendix B

Mitigation Feasibility Map-Eastview Farm



SITE SUMMARY:
 APPROXIMATELY 12,387 LINEAR FEET (LF) OF STREAM CHANNEL

STREAM CREDITS	
STREAM RESTORATION/ENHANCEMENT:	4,223 CREDITS
100' BUFFER PLANTING/PRESERVATION:	4,704 CREDITS
LIVESTOCK EXCLUSION:	3,701 CREDITS
WATERSHED PROTECTION CREDIT	1,224 CREDITS
TOTAL:	13,852 CREDITS

WETLAND CREDITS	
WETLAND CREATION: 7.57 AC @ 1:1	7.57 CREDITS
100' UPLAND BUFFER: 2.98 AC @ 15:1	0.20 CREDITS
TOTAL	7.70 CREDITS

ANGLER ENVIRONMENTAL

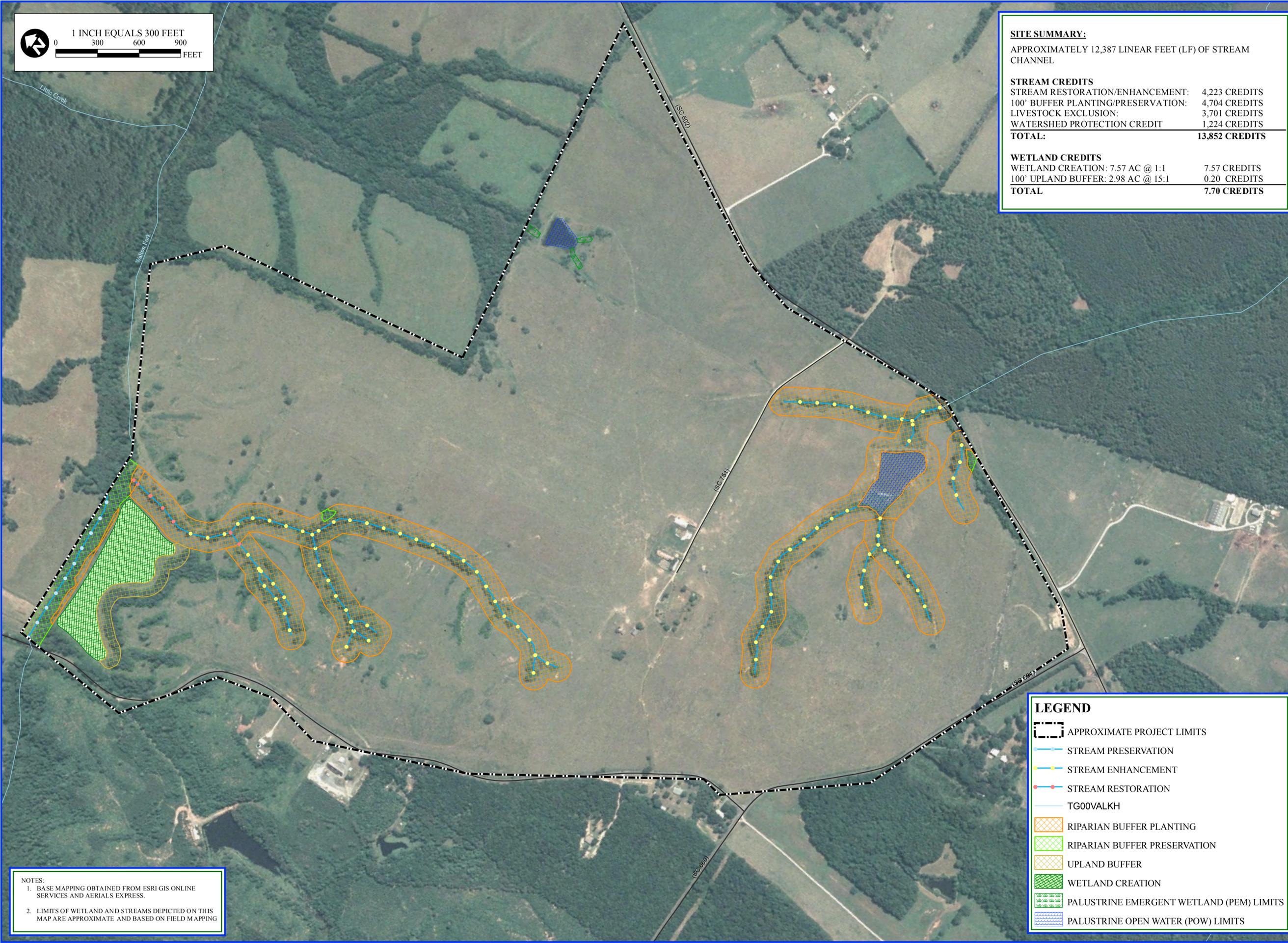
CORPORATE | 1281 IRANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
 P: 703.393.4844 | F: 703.393.2934

RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23221
 P: 804.353.6017 | F: 804.353.6018

PROJECT: MIDDLE JAMES
 REGIONAL ENVIRONMENTAL BANK
 APPLICANT: MITIGATION SERVICES, INC.

**EASTVIEW FARM
 MITIGATION FEASIBILITY MAP**

BUCKINGHAM COUNTY, VIRGINIA



LEGEND

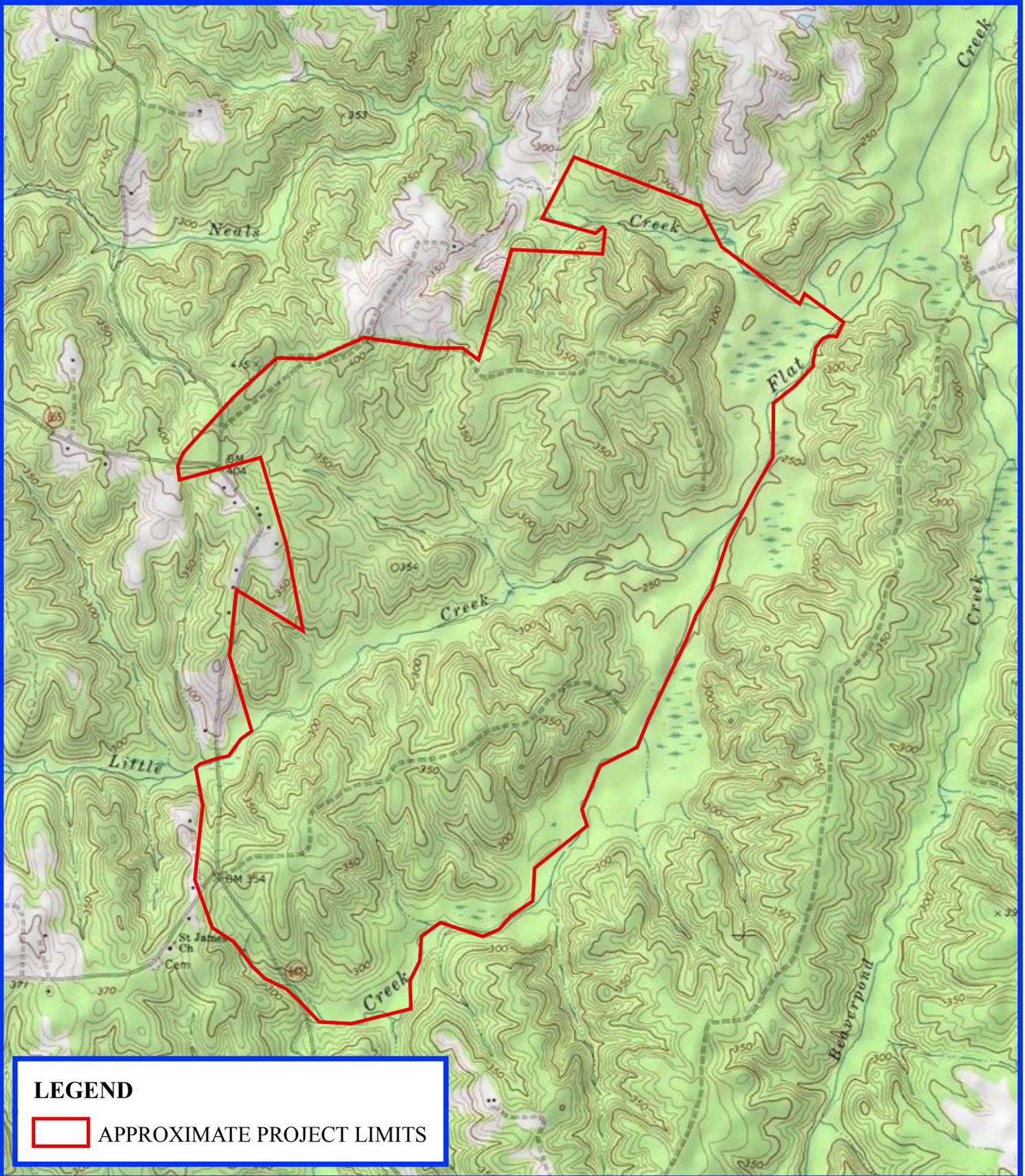
- APPROXIMATE PROJECT LIMITS
- STREAM PRESERVATION
- STREAM ENHANCEMENT
- STREAM RESTORATION
- TG00VALKH
- RIPARIAN BUFFER PLANTING
- RIPARIAN BUFFER PRESERVATION
- UPLAND BUFFER
- WETLAND CREATION
- PALUSTRINE EMERGENT WETLAND (PEM) LIMITS
- PALUSTRINE OPEN WATER (POW) LIMITS

NOTES:
 1. BASE MAPPING OBTAINED FROM ESRI GIS ONLINE SERVICES AND AERIALS EXPRESS.
 2. LIMITS OF WETLAND AND STREAMS DEPICTED ON THIS MAP ARE APPROXIMATE AND BASED ON FIELD MAPPING

PROJECT MANAGER:	TL
DRAWN:	MD
JOB NUMBER:	8076
DESIGN FILE:	8076 - Mitigation_Feasibility - 24 x 36
DATE:	8/11/08
REVISIONS:	NONE

APPENDIX C

Project Location, Vicinity, and Aerial Imagery Maps (Amelia Springs)



LEGEND

 APPROXIMATE PROJECT LIMITS



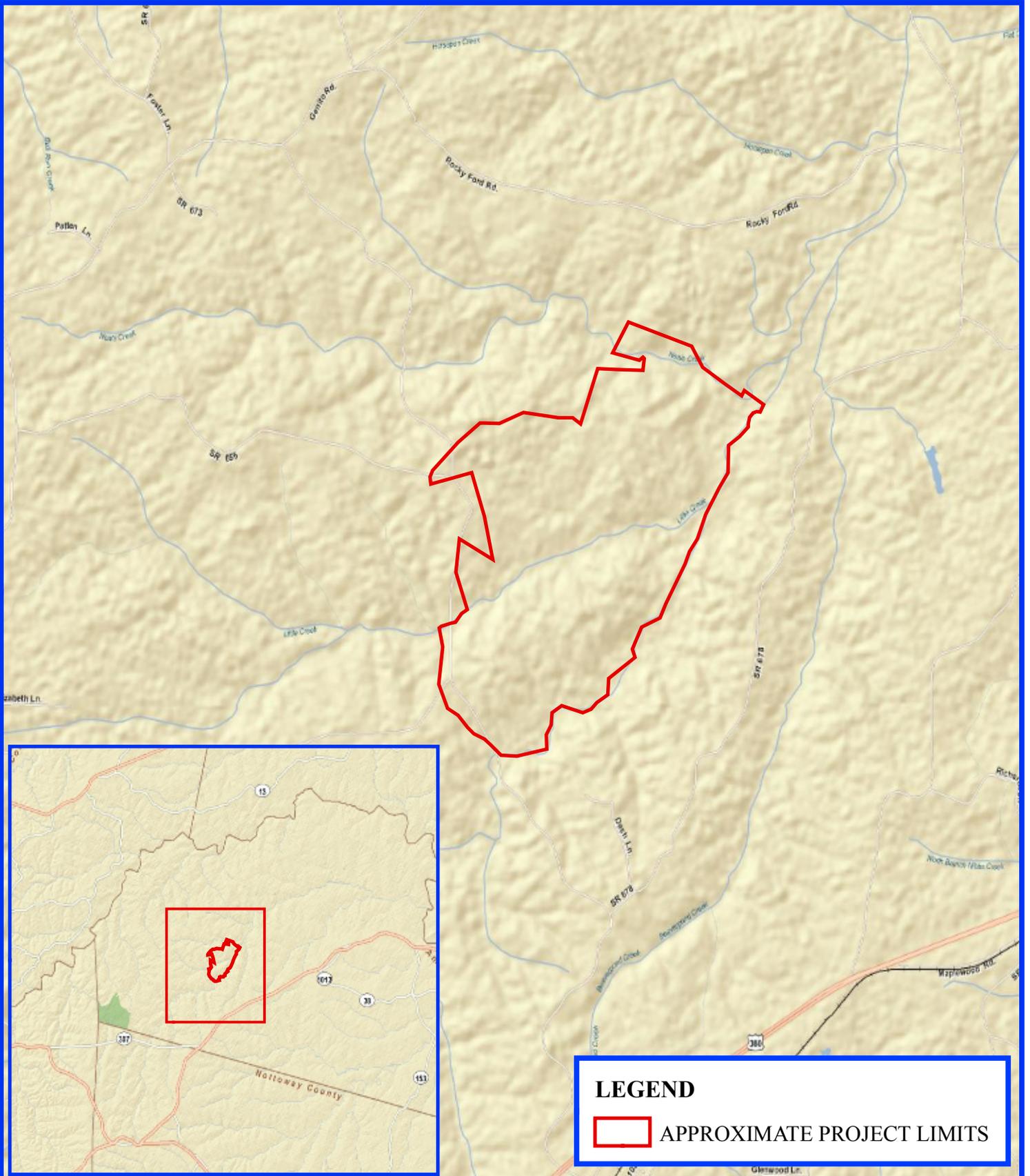
ANGLER ENVIRONMENTAL
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 RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23221
 P: 804.353.6017 | F: 804.353.6018

PROJECT LOCATION MAP

MJREB – AMELIA SPRINGS BANK SITE
AMELIA COUNTY, VA

USGS Topo Quads: Jetersville, Va
Latitude: 37°20'53"
Longitude: 78°5'46"
Approx. Project Area: 1634 acres
Elevation: 250' – 400'
Scale: 1 inch equals 2,000 feet
Source: ESRI





LEGEND

 APPROXIMATE PROJECT LIMITS



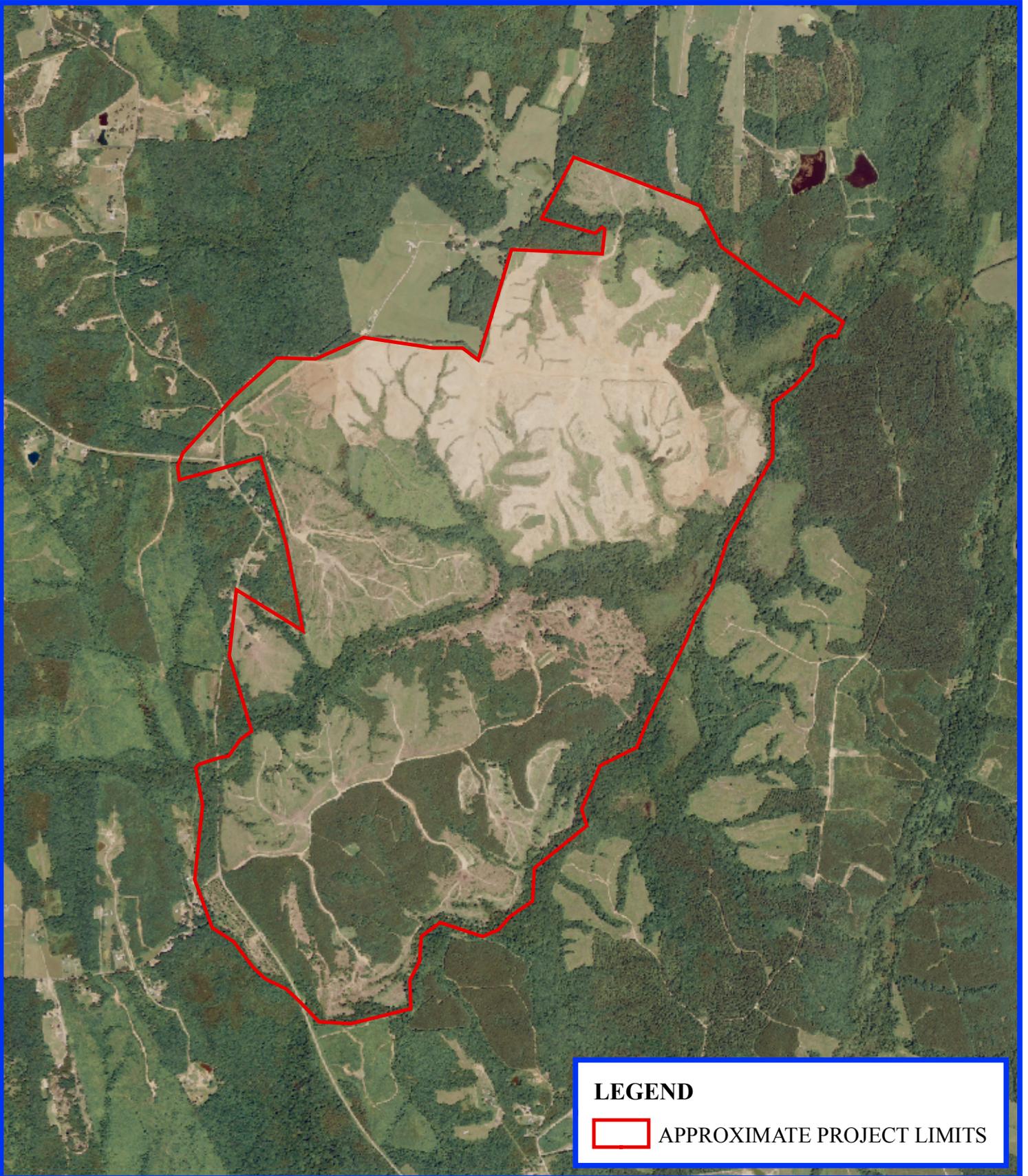
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 RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23221
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VICINITY MAP
MJREB – AMELIA SPRINGS
BANK SITE
AMELIA COUNTY, VA

1 inch equals 4,000 feet



Source:
 ESRI StreetMap USA & USA Base Map
 ESRI StreetMap World 2D



LEGEND
 APPROXIMATE PROJECT LIMITS



ANGLER
ENVIRONMENTAL

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AERIAL IMAGERY

**MJREB – AMELIA SPRINGS
BANK SITE**

AMELIA COUNTY, VA

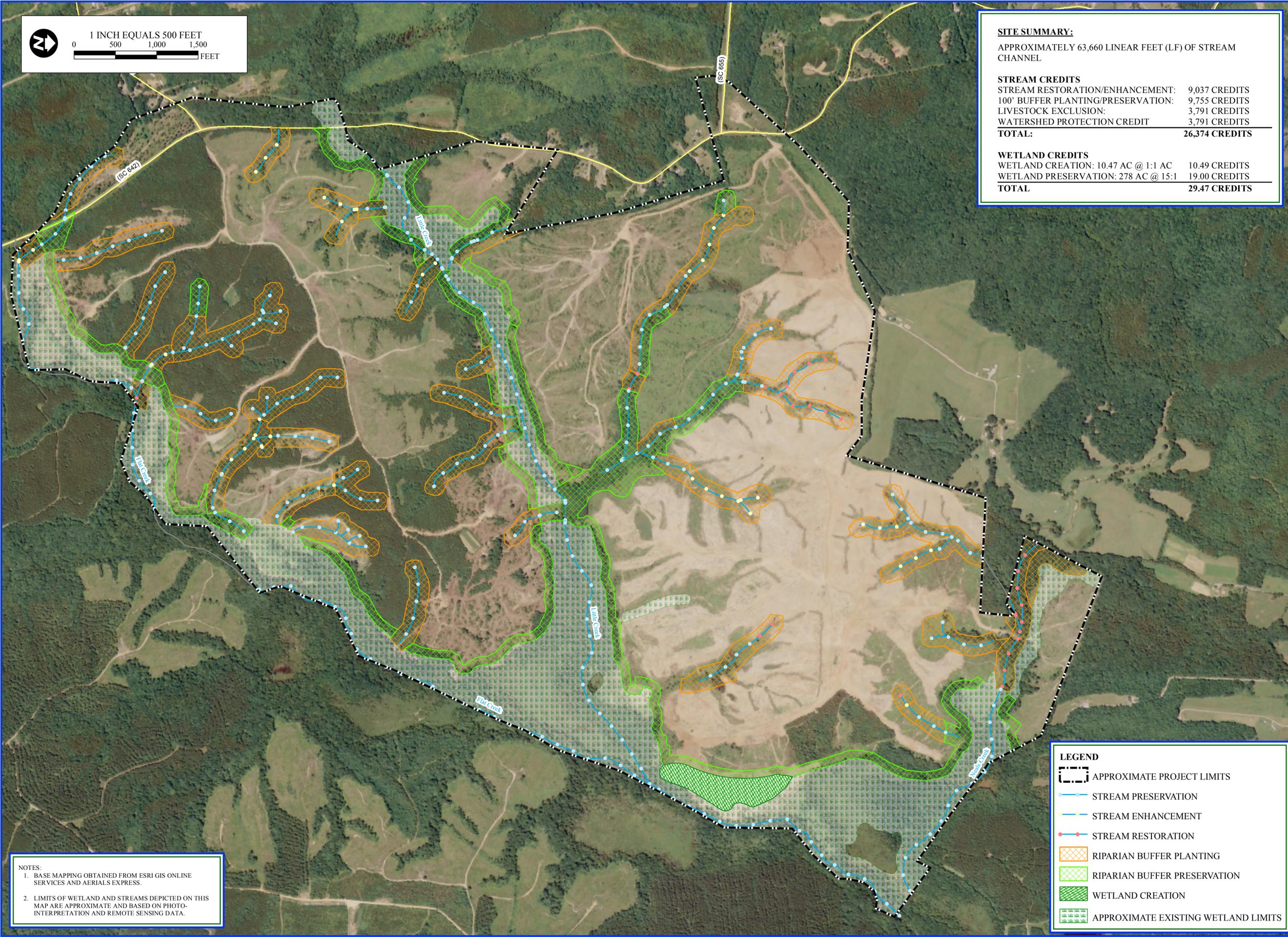
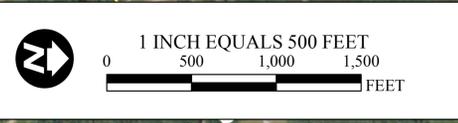
Digital Orthophoto
Source:
2006 NAIP Aerial Imagery
USDA-FSA-APFO NAIP
MrSID Mosaic
The U.S. Department of Agriculture,
Service Center Agencies

1 inch equals 2,000 feet



Appendix D

Mitigation Feasibility Map-Amelia Springs



SITE SUMMARY:
APPROXIMATELY 63,660 LINEAR FEET (LF) OF STREAM CHANNEL

STREAM CREDITS	
STREAM RESTORATION/ENHANCEMENT:	9,037 CREDITS
100' BUFFER PLANTING/PRESERVATION:	9,755 CREDITS
LIVESTOCK EXCLUSION:	3,791 CREDITS
WATERSHED PROTECTION CREDIT	3,791 CREDITS
TOTAL:	26,374 CREDITS

WETLAND CREDITS	
WETLAND CREATION: 10.47 AC @ 1:1 AC	10.49 CREDITS
WETLAND PRESERVATION: 278 AC @ 15:1	19.00 CREDITS
TOTAL	29.47 CREDITS

NOTES:
 1. BASE MAPPING OBTAINED FROM ESRI GIS ONLINE SERVICES AND AERIALS EXPRESS.
 2. LIMITS OF WETLAND AND STREAMS DEPICTED ON THIS MAP ARE APPROXIMATE AND BASED ON PHOTO-INTERPRETATION AND REMOTE SENSING DATA.

LEGEND

- APPROXIMATE PROJECT LIMITS
- STREAM PRESERVATION
- STREAM ENHANCEMENT
- STREAM RESTORATION
- RIPARIAN BUFFER PLANTING
- RIPARIAN BUFFER PRESERVATION
- WETLAND CREATION
- APPROXIMATE EXISTING WETLAND LIMITS



CORPORATE | 1281 IRANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
 P: 703.393.4844 | F: 703.393.2934
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PROJECT: MIDDLE JAMES
 REGIONAL ENVIRONMENTAL BANK
 APPLICANT: MITIGATION SERVICES, INC.
 AMELIA SPRINGS
 MITIGATION FEASIBILITY MAP
 AMELIA COUNTY, VIRGINIA

PROJECT MANAGER:	DS
DRAWN:	MM
JOB NUMBER:	8071
DESIGN FILE:	8071 - Mitigation Feasibility - 24 x 36
DATE:	9/22/08
REVISIONS:	NONE

Appendix E

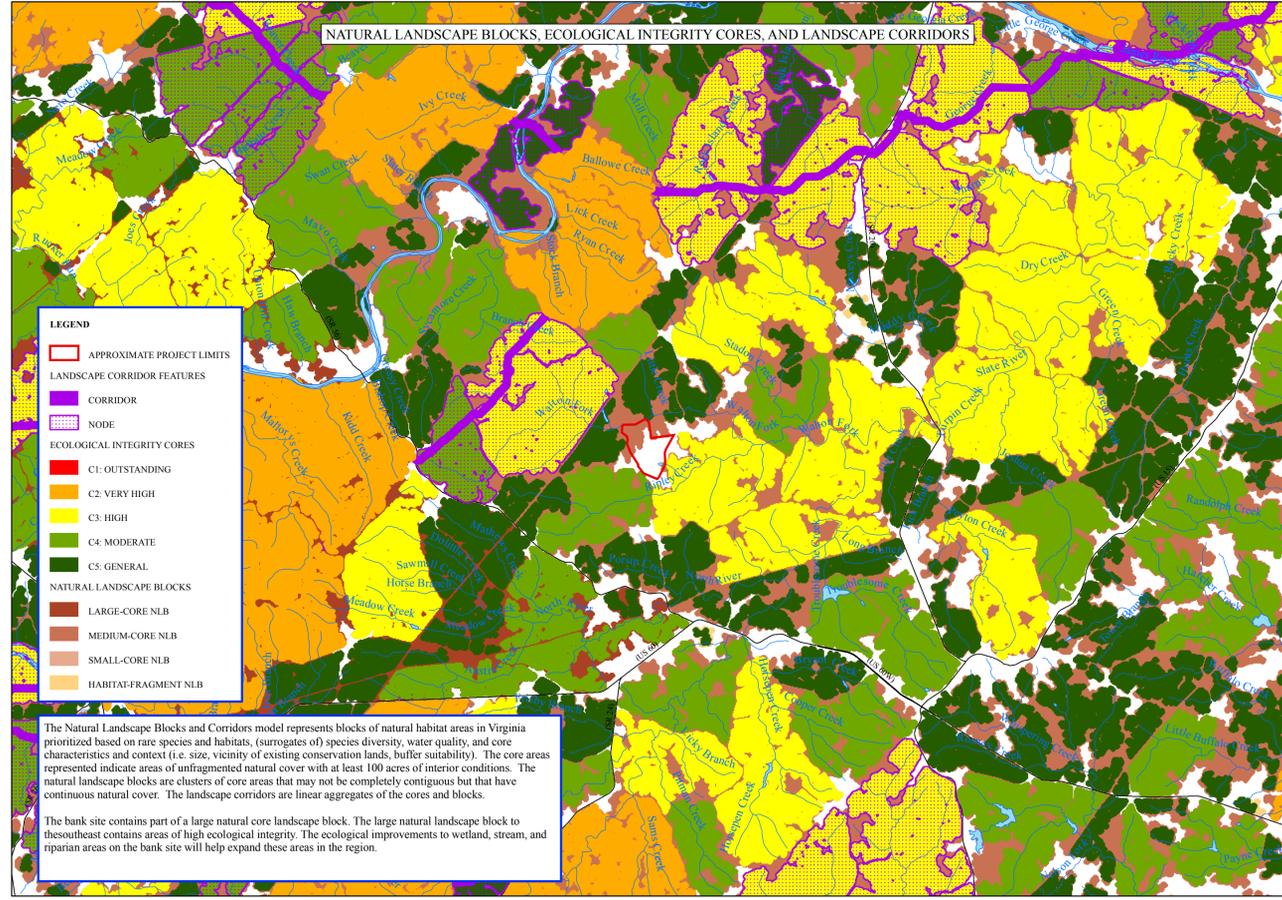
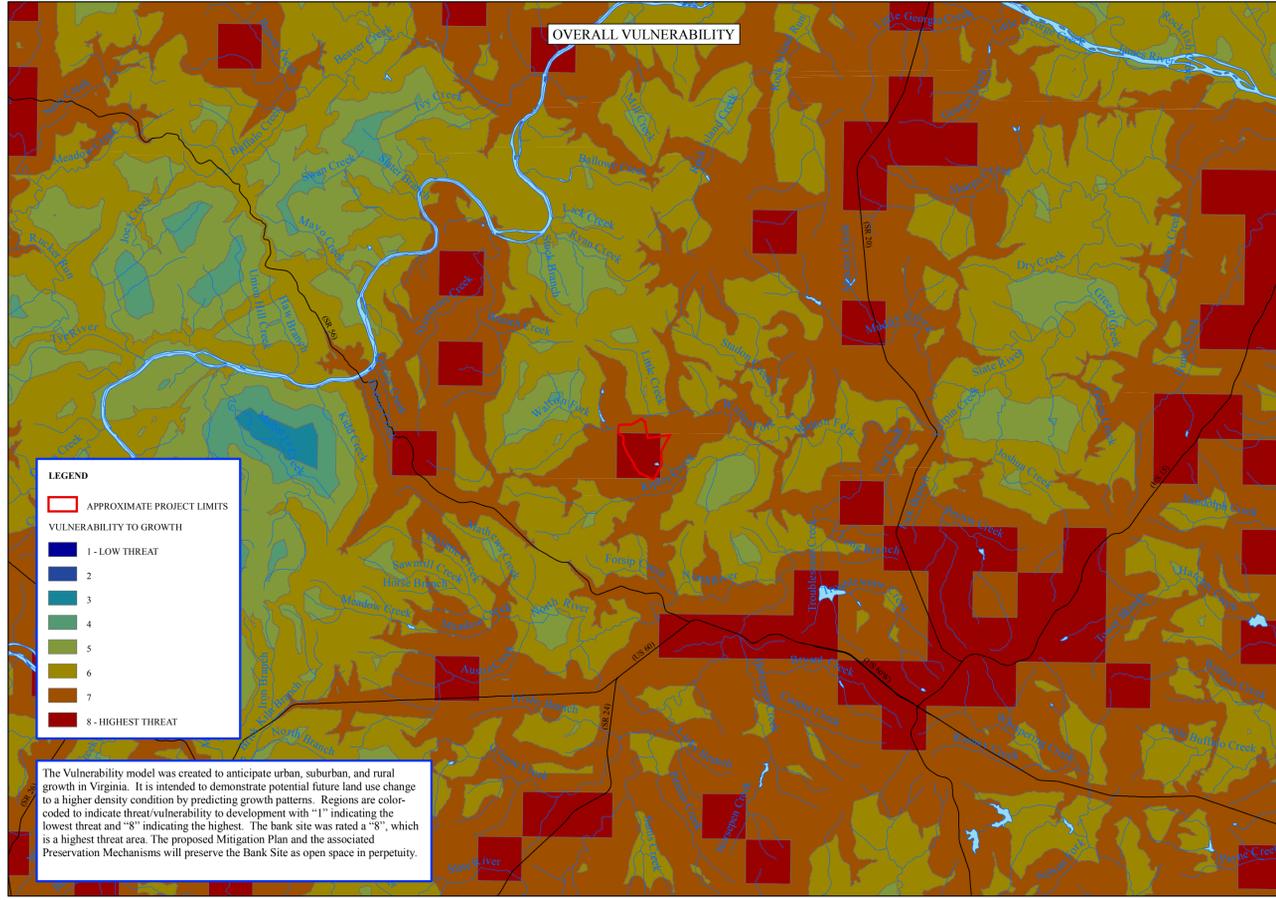
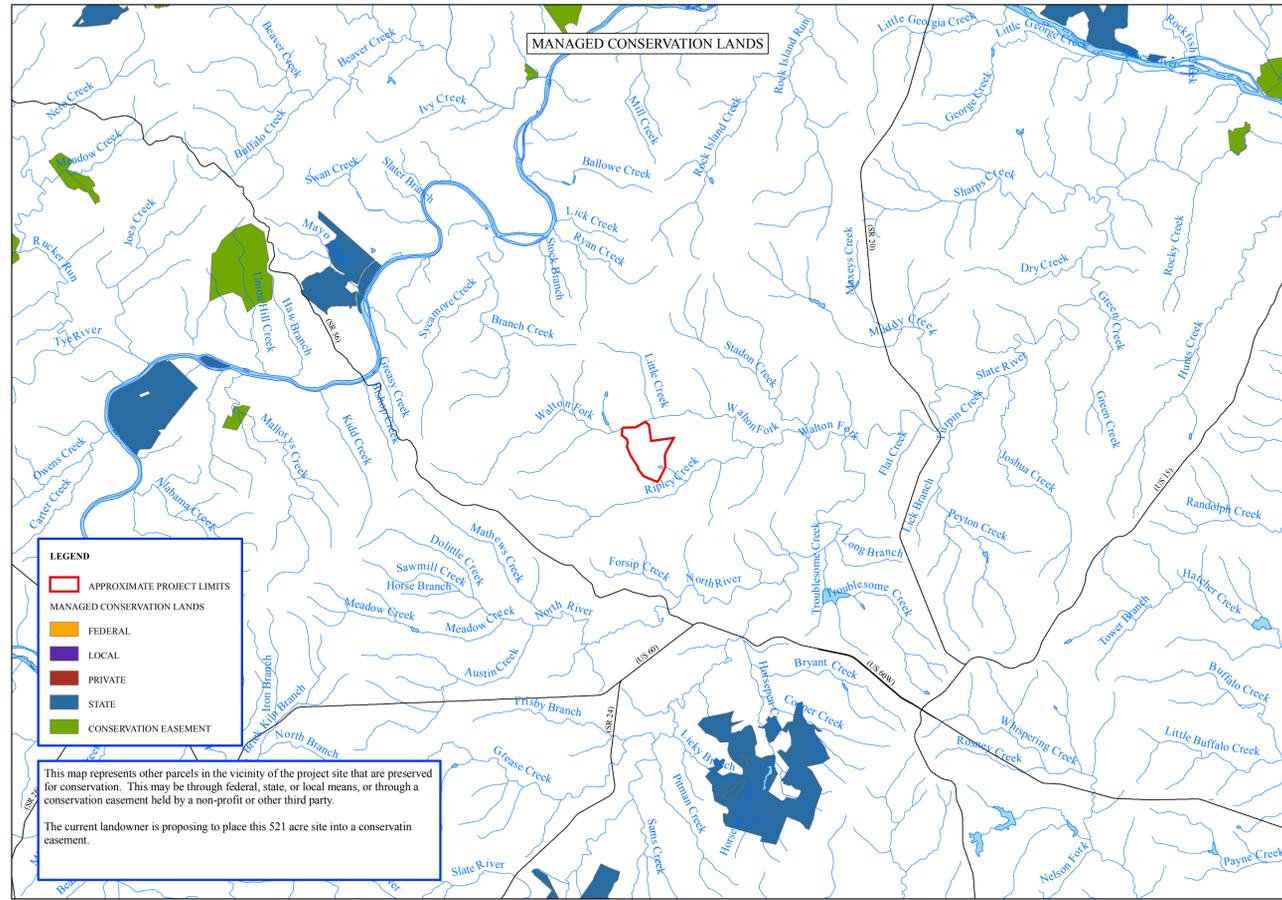
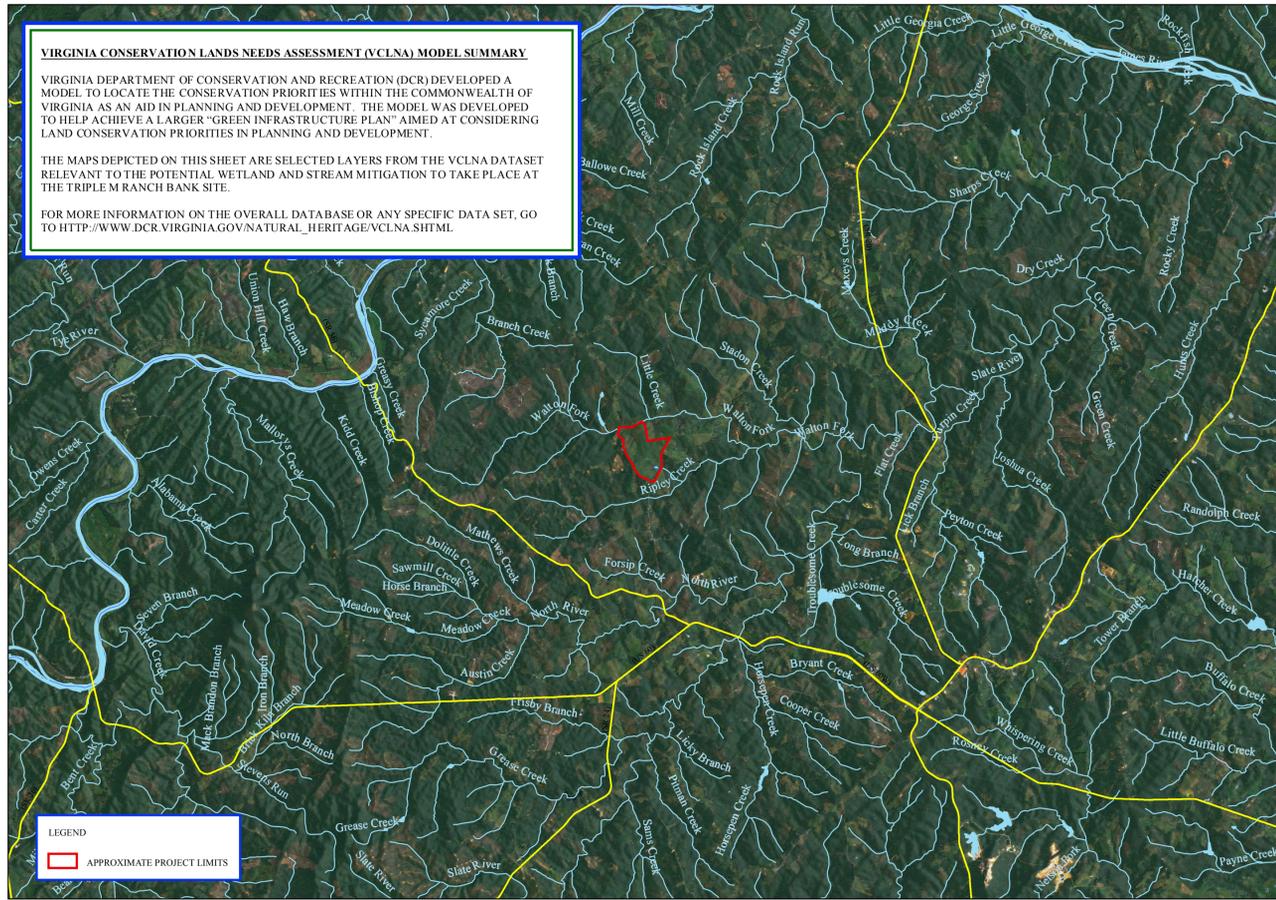
Virginia Conservation Lands Needs Assessment Models Map- Eastview Farm

VIRGINIA CONSERVATION LANDS NEEDS ASSESSMENT (VCLNA) MODEL SUMMARY

VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR) DEVELOPED A MODEL TO LOCATE THE CONSERVATION PRIORITIES WITHIN THE COMMONWEALTH OF VIRGINIA AS AN AID IN PLANNING AND DEVELOPMENT. THE MODEL WAS DEVELOPED TO HELP ACHIEVE A LARGER "GREEN INFRASTRUCTURE PLAN" AIMED AT CONSIDERING LAND CONSERVATION PRIORITIES IN PLANNING AND DEVELOPMENT.

THE MAPS DEPICTED ON THIS SHEET ARE SELECTED LAYERS FROM THE VCLNA DATASET RELEVANT TO THE POTENTIAL WETLAND AND STREAM MITIGATION TO TAKE PLACE AT THE TRIPLE M RANCH BANK SITE.

FOR MORE INFORMATION ON THE OVERALL DATABASE OR ANY SPECIFIC DATA SET, GO TO [HTTP://WWW.DCR.VIRGINIA.GOV/NATURAL_HERITAGE/VCLNA.SHTML](http://www.dcr.virginia.gov/natural_heritage/vclna.shtml)



ANGLER ENVIRONMENTAL

CORPORATE | 12811 RANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
 P: 703.393.4844 | F: 703.393.2934

RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23211
 P: 804.353.6017 | F: 804.353.6018

**PROJECT: MIDDLE JAMES REGIONAL ENVIRONMENTAL BANK
 BANK SITE: EASTVIEW FARM
 VIRGINIA CONSERVATION LANDS NEEDS ASSESSMENT MODELS MAP
 BUCKINGHAM COUNTY, VIRGINIA**

PROJECT MANAGER:	DS
DRAWN:	MM
JOB NUMBER:	8071
DESIGN FILE:	8076 - VCLNA Models - 24 x 36
DATE:	09/25/08
REVISIONS:	NONE

Appendix F

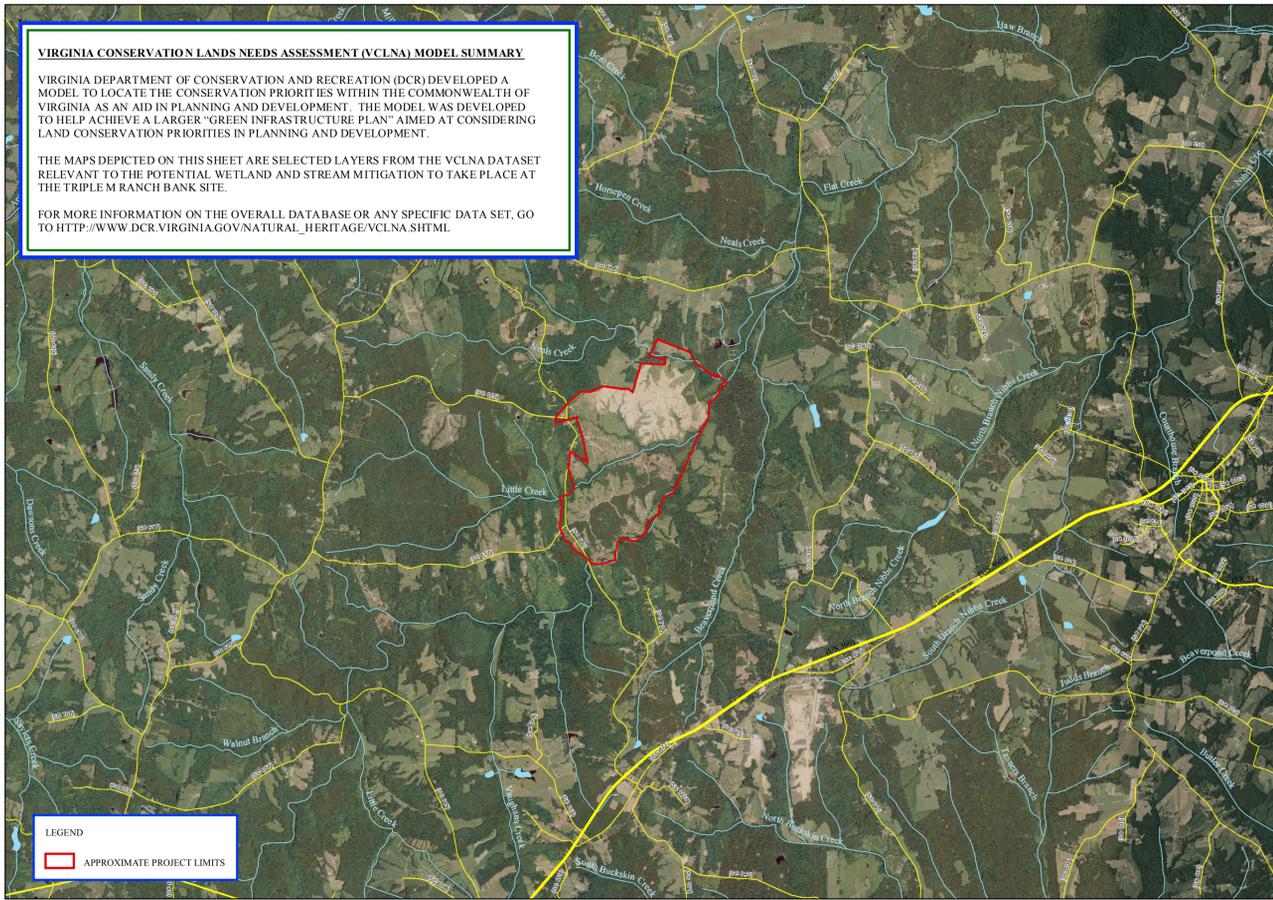
Virginia Conservation Lands Needs Assessment Models Map- Amelia Springs

VIRGINIA CONSERVATION LANDS NEEDS ASSESSMENT (VCLNA) MODEL SUMMARY

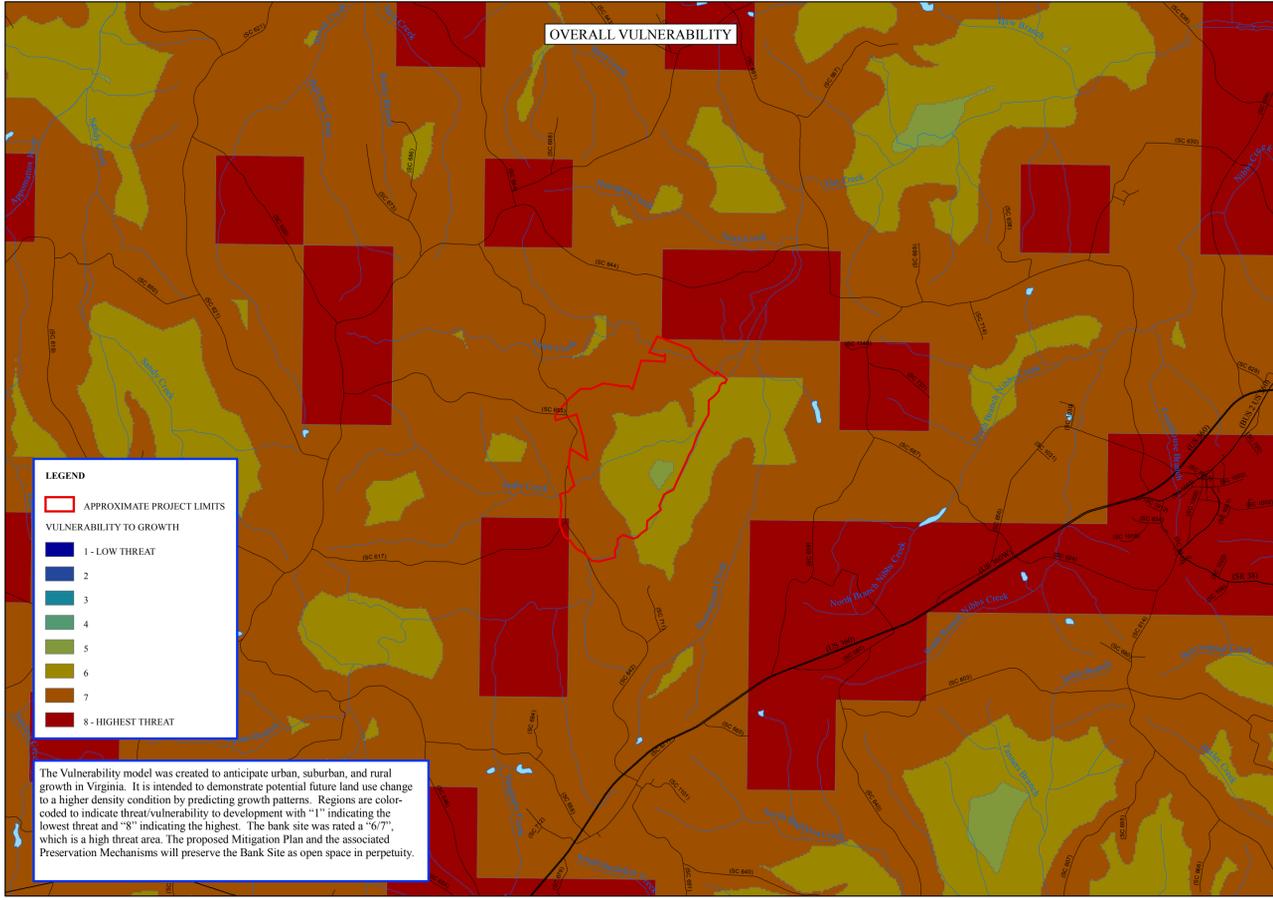
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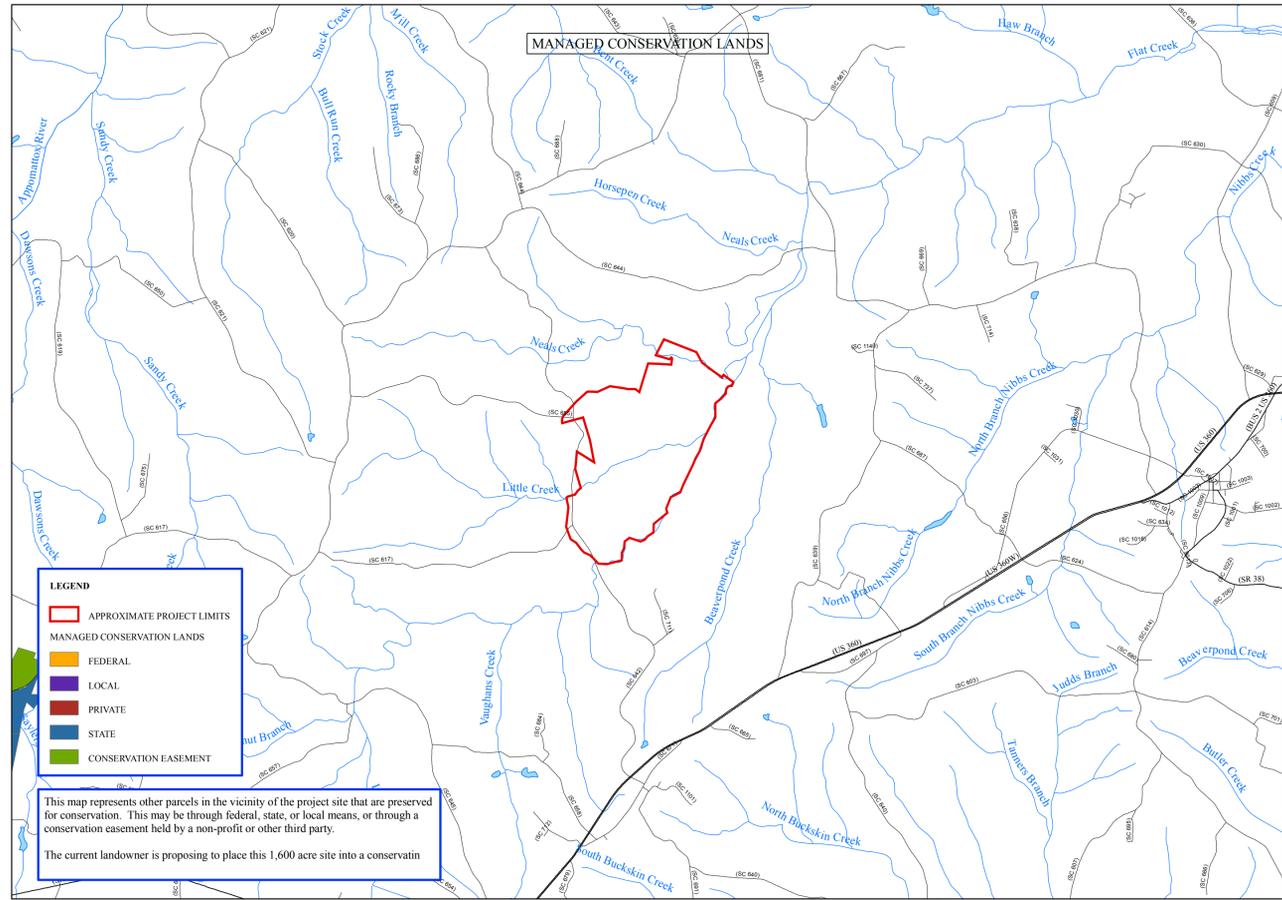


LEGEND
 [Red Outline] APPROXIMATE PROJECT LIMITS



LEGEND
 [Red Outline] APPROXIMATE PROJECT LIMITS
VULNERABILITY TO GROWTH
 1 - LOW THREAT
 2
 3
 4
 5
 6
 7
 8 - HIGHEST THREAT

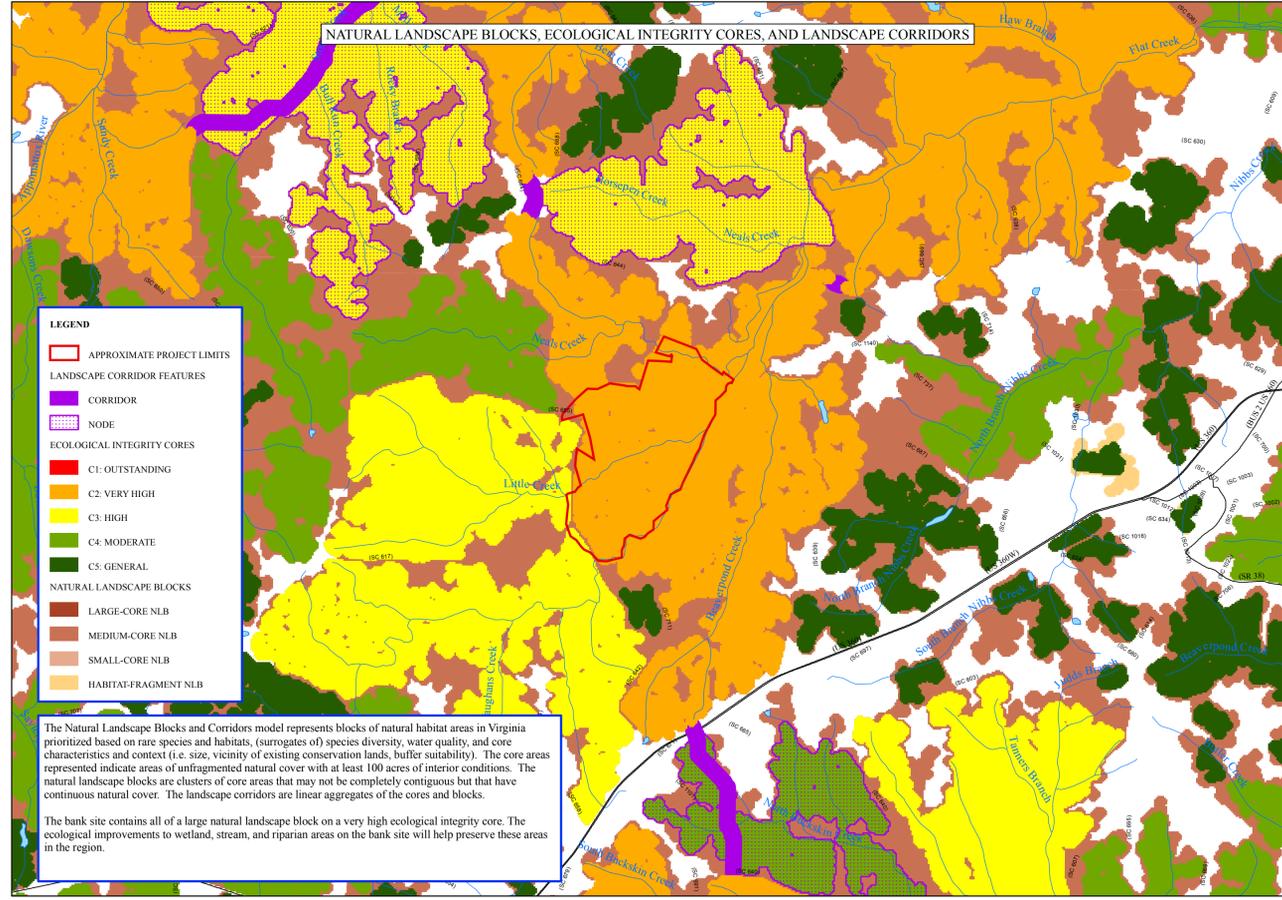
The Vulnerability model was created to anticipate urban, suburban, and rural growth in Virginia. It is intended to demonstrate potential future land use change to a higher density condition by predicting growth patterns. Regions are color-coded to indicate threat/vulnerability to development with "1" indicating the lowest threat and "8" indicating the highest. The bank site was rated a "6/7", which is a high threat area. The proposed Mitigation Plan and the associated Preservation Mechanisms will preserve the Bank Site as open space in perpetuity.



LEGEND
 [Red Outline] APPROXIMATE PROJECT LIMITS
MANAGED CONSERVATION LANDS
 FEDERAL
 LOCAL
 PRIVATE
 STATE
 CONSERVATION EASEMENT

This map represents other parcels in the vicinity of the project site that are preserved for conservation. This may be through federal, state, or local means, or through a conservation easement held by a non-profit or other third party.
 The current landowner is proposing to place this 1,600 acre site into a conservati

1 INCH EQUALS 5,000 FEET
 0 5,000 10,000 15,000 FEET



LEGEND
 [Red Outline] APPROXIMATE PROJECT LIMITS
LANDSCAPE CORRIDOR FEATURES
 CORRIDOR
 NODE
ECOLOGICAL INTEGRITY CORES
 C1- OUTSTANDING
 C2- VERY HIGH
 C3- HIGH
 C4- MODERATE
 C5- GENERAL
NATURAL LANDSCAPE BLOCKS
 LARGE-CORE NLB
 MEDIUM-CORE NLB
 SMALL-CORE NLB
 HABITAT-FRAGMENT NLB

The Natural Landscape Blocks and Corridors model represents blocks of natural habitat areas in Virginia prioritized based on rare species and habitats, (surrogates of) species diversity, water quality, and core characteristics and context (i.e. size, vicinity of existing conservation lands, buffer suitability). The core areas represented indicate areas of unfragmented natural cover with at least 100 acres of interior conditions. The natural landscape blocks are clusters of core areas that may not be completely contiguous but that have continuous natural cover. The landscape corridors are linear aggregates of the cores and blocks.

The bank site contains all of a large natural landscape block on a very high ecological integrity core. The ecological improvements to wetland, stream, and riparian areas on the bank site will help preserve these areas in the region.



CORPORATE | 12811 RANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20109
 P: 703.393.4844 | F: 703.393.2934
 RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23221
 P: 804.353.6017 | F: 804.353.6018

PROJECT: MIDDLE JAMES REGIONAL ENVIRONMENTAL BANK SITE: AMELIA SPRINGS VIRGINIA CONSERVATION LANDS NEEDS ASSESSMENT MODELS MAP AMELIA COUNTY, VIRGINIA

PROJECT MANAGER:	DS
DRAWN:	MM
JOB NUMBER:	8071
DESIGN FILE:	8071 - VCLNA Models - 24 x 36
DATE:	09/25/08
REVISIONS:	NONE

Appendix G
Service Area Map

