

**PROSPECTUS
FOR THE PROPOSED**

**GOOSE CREEK ENVIRONMENTAL BANK
Loudoun County, Virginia**

Sponsor Information:

Wetlands Development, LLC
Attn: Mr. Kevin Breeden
P.O. Box 1062
Warrenton, Virginia 20188

Prepared By/Authorized Agent:

Angler Environmental
Attn: Mr. Donald Seaborn/Mr. Paul Pitera
12811 Randolph Ridge Lane
Manassas, Virginia 20109
703.393.4844

I. SUMMARY

A. Introduction

Wetlands Development, LLC (hereinafter, “Sponsor”) hereby proposes to establish and sponsor the Goose Creek Environmental Bank (hereinafter, the “Bank”) to be located in Loudoun County, Virginia. The Bank currently consists of one (1) site, Shelburne Bank site (hereinafter, the “Bank site”), located within the Goose Creek watershed, a tributary to the Potomac River. The 190+/- acre Bank site encompasses approximately 9,347 linear feet of stream channel and is currently used for agricultural purposes. Based on a preliminary credit calculation using the Unified Stream Methodology (USM), the total compensation credit for restoring, enhancing, and preserving the stream channels and riparian buffers is approximately 10,100 credits for this Bank site. The Bank site is proposed to serve areas within Hydrologic Unit Cataloging (HUC) Codes 02070008 and 02070010.

The purpose of the Bank site will be to provide compensatory stream mitigation credits designed to offset authorized unavoidable impacts in a manner that best contributes to the long-term ecological health of the Potomac River Watershed. This will be accomplished by restoring degraded stream channels and adjacent agricultural fields located on the Bank site to higher value natural aquatic resource areas. These areas will be designed to replace the chemical, physical, and biological function of stream channels and riparian areas within the proposed service area that are lost as a result of authorized impacts.

B. Sponsor and Agent Qualifications

Wetlands Development, LLC (hereinafter, the “Sponsor”) currently operates two (2) approved wetland banks (Woods at Warrenton Wetland Bank (WWWB) and Northern Virginia Regional Environmental Bank (NVREB)) with four (4) associated Bank sites (Woods at Warrenton (WWWB), Miller Farm (NVREB), Keaton Farm (NVREB) and Peters Farm (NVREB)). Angler Environmental (hereinafter, the “Agent”) and its affiliated companies currently operate four (4) approved wetland and/or stream banks in Virginia (Blackjack Wetland Mitigation Bank, NVREB, WWWB, and Potomac Regional Environmental Bank (PREB)) and have three (3) additional banks currently under IRT review. Moreover, the Agent and its affiliated companies have successfully completed design and construction of over 60 full delivery project-specific mitigation sites approved by Interagency Review Team (IRT) member agencies.

II. SHELBURNE BANK SITE DESCRIPTION

A. Location and Current Use

The Bank site is an agricultural parcel located in Loudoun County, Virginia (see *Project Location, Vicinity, and HUC Vicinity Maps* in Appendix A). The Bank site is approximately 190.19 acres in size and contains approximately 9,347 linear feet of stream channels. The Bank site is located along Shelburne Glebe Road (State Route 729) and encompasses the confluence of Crooked Run and North Fork Goose Creek. A USGS Gage Station (1ANOG005.69) is located immediately downstream of the Bank site on North Fork Goose Creek.

The Goose Creek watershed, specifically the onsite portion of North Fork Goose Creek immediately above the confluence with Crooked Run, 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 and other unknown sources. For at least the past 50 years, approximately 100 cattle have grazed the fields and had access to the streams onsite. However, they will be excluded from the site as part of the proposed stream project. This will not only remove a suspected source of fecal coliform from the watershed, but also eliminate areas of erosion and unvegetated banks caused by livestock trampling.

B. Feasibility and Baseline Data

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

C. Preliminary Wetland Delineation

Field investigations confirmed that there is little potential for wetland restoration or enhancement within the Bank site project limits. The National Wetlands Inventory Interactive Mapper (NWI) administered by the U.S. Fish and Wildlife Service also shows very few wetlands resources on the Bank site (see *NWI Map* in Appendix B). A wetland delineation will be completed and submitted to the U.S. Army Corps of Engineers for approval.

D. Historic/Archaeological Resources

The Goose Creek Rural Historic District overlaps with the portion of the Bank site north of the North Fork Goose Creek, based on a review of the Virginia Department of Historic Resources (VDHR) Data Sharing System (DSS) website (See Department of Historic Resources Information in Appendix B). It is anticipated that the Historic District will not interfere with the viability of the Bank site.

E. Threatened and Endangered Species

The Virginia Department of Game and Inland Fisheries (DGIF) online database revealed that the Virginia Breeding Bird Atlas Block (BBA) for the loggerhead shrike (*Lanius ludovicianus*) overlaps with Bank site project area (see results of the DGIF search in Appendix B). This species is a State Threatened species, in addition to a Tier I priority for the Virginia Wildlife Action Plan, indicating a Critical Conservation Need. The potential to provide additional suitable habitat for the Loggerhead shrike will be investigated as part of the development of the Bank site.

F. Local Coordination

As the attention on water quality in the Potomac watershed has increased over the past several years, Loudoun County developed a Strategic Watershed Management Solutions Plan (February – June 2006). Goals of this plan include protecting, providing and restoring riparian buffers and diverse native wildlife habitats, projecting stream channel processes, and restoring water quality and stream health. The activities proposed on the Bank site would help accomplish these goals.

Additionally, the Agent is an active participant in the Loudoun County Wetlands Workgroup, a group comprised of County staff and other stakeholders interested in wetland and stream mitigation issues in Loudoun County. The group is focused on developing strategies that will facilitate the establishment of mitigation projects within Loudoun County.

III. MITIGATION METHODS

Development of the Bank site will involve stream and riparian buffer restoration, enhancement and preservation. As previously stated, the goal of the Bank is to compensate for regulated aquatic resources that are anticipated to be lost through unavoidable authorized activities within the Bank's service area. This goal will be achieved through restoration and/or enhancement of stream channels through modifications that may include, but are not limited to, Natural Channel Design (NCD) techniques, channel cross section and pattern alterations, bank stabilization and bioengineering techniques, grade control and in-stream structures, establishment and/or preservation of forested riparian buffers, preservation of high-quality stream channels, and removal of detrimental land use activities (i.e. livestock grazing and crop production) in riparian corridors.

The Unified Stream Methodology (USM) was used to calculate the estimated compensation credits for the Bank site (see *Mitigation Feasibility Map* in Appendix C). An adjustment factor for livestock exclusion credits was included. The Bank site consists of approximately 9,347 linear feet of stream channel, all of which is proposed for inclusion in the Bank site area. Approximately, 10,100 stream compensation credits are estimated to be available at the Bank site.

Several onsite streams on the Bank site are in need of restoration and/or enhancement activities. The 2,000 linear feet of stream channel proposed for restoration and approximately 3,800 linear feet of stream channels proposed for enhancement exhibit actively eroding banks, stream incision, instabilities due to tortuous meander bends, mid-channel bars and excessive debris jams, headcuts, and lack of floodplain access. Examples of these areas are shown in the photographs on the *Mitigation Feasibility Map*. Restoration and enhancement objectives include correcting instabilities to provide stable stream pattern, profile, and dimension. These activities may include stabilizing eroding banks through grading and the establishment of native 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, correcting the detrimental effects of livestock impacts and stabilizing existing and potential headcuts. Along all onsite streams, 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 native woody species along both sides of the stream as depicted on the *Mitigation Feasibility Map*, which has been overlaid on aerial photography to clearly depict current site conditions. A total of 58.3 acres of land is proposed for riparian buffer planting, while 16.2 acres are already forested and proposed for riparian buffer preservation. Livestock will be excluded from all mitigation areas.

IV. OPERATION OF THE BANK

An MBI will be developed by the Sponsor to establish the Bank. The MBI, as well as the development and operation of the Bank, will be in accordance with all applicable Federal and Commonwealth of Virginia statutes, regulations, and guidance.

The MBI will include a detailed Bank Development Plan that will present clear goals and objectives for the Bank site. The Bank Development Plan will consist of details for the Bank site based on site specific data and modeling, including watershed information, existing wetland and stream channel assessments, stream geomorphic survey data, a conceptual design and reference reach information, as applicable. Stream mitigation credit will be determined using USM or an alternate assessment method approved by the IRT.

A. Geographic Service Area

Service area for each Bank site will be included in the Bank Development Plan and will be consistent with current regulations. The Bank site is located within the Goose Creek watershed, which is in the Potomac River Basin. The Bank site is located in the Middle Potomac-Catoctin Watershed HUC Code (02070008), which includes portions of Loudoun, Fauquier, and Fairfax, Clarke, Prince William, and Warren Counties. The proposed service area for the Bank will incorporate the entire 02070008 and 02070010 HUC Codes. This proposed service area of the Bank site is consistent with current and proposed Commonwealth of Virginia statutes and regulations governing mitigation banks (Code of Virginia § 62.1-44.15:23). A *Service Area Map* for the Bank site is provided in Appendix D.

B. Additional Bank Sites

The MBI will be structured to allow the addition of subsequent Bank sites in the Potomac Watershed to provide stream and/or wetland credits under this Bank. A separate Bank Development Plan shall be submitted for each Bank site detailing specific site conditions, mitigation methods, and a credit summary.

C. Permits

Development of the Bank site, 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 stream channel restoration activities. The Sponsor, as part of the Bank site approval process, will obtain any necessary Clean Water Act (CWA) and/or VWPMP permits.

D. Ownership Arrangements

The Sponsor will establish the Bank site and be the operator of the Bank site through the credit sale and monitoring period. The Sponsor will establish a landowner agreement with the owner of the Bank site which will allow the Sponsor to perform mitigation activities within the portions of the property designated for mitigation. The landowner agreement will require that the property owner record restrictive covenants or conservation easements on those portions of land designated for mitigation. The agreement will also require the landowner to provide the Sponsor with all the rights of way, access and easements necessary to perform the required mitigation design,

construction and monitoring/maintenance activities within the mitigation areas of the properties.

E. Long Term Monitoring and Maintenance

The Sponsor presently controls the proposed Bank site and will be responsible for a monitoring and maintenance period following construction of the mitigation areas to ensure success of the mitigation implementation. Following construction activities, a monitoring plan will be implemented to ensure that any applicable vegetation and stability success criteria are being met. The monitoring plan will be detailed in the Bank Development Plan for the 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 site, potential remedial actions and financial assurances will be similarly developed, and contained in the final MBI and Bank Development Plan.

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

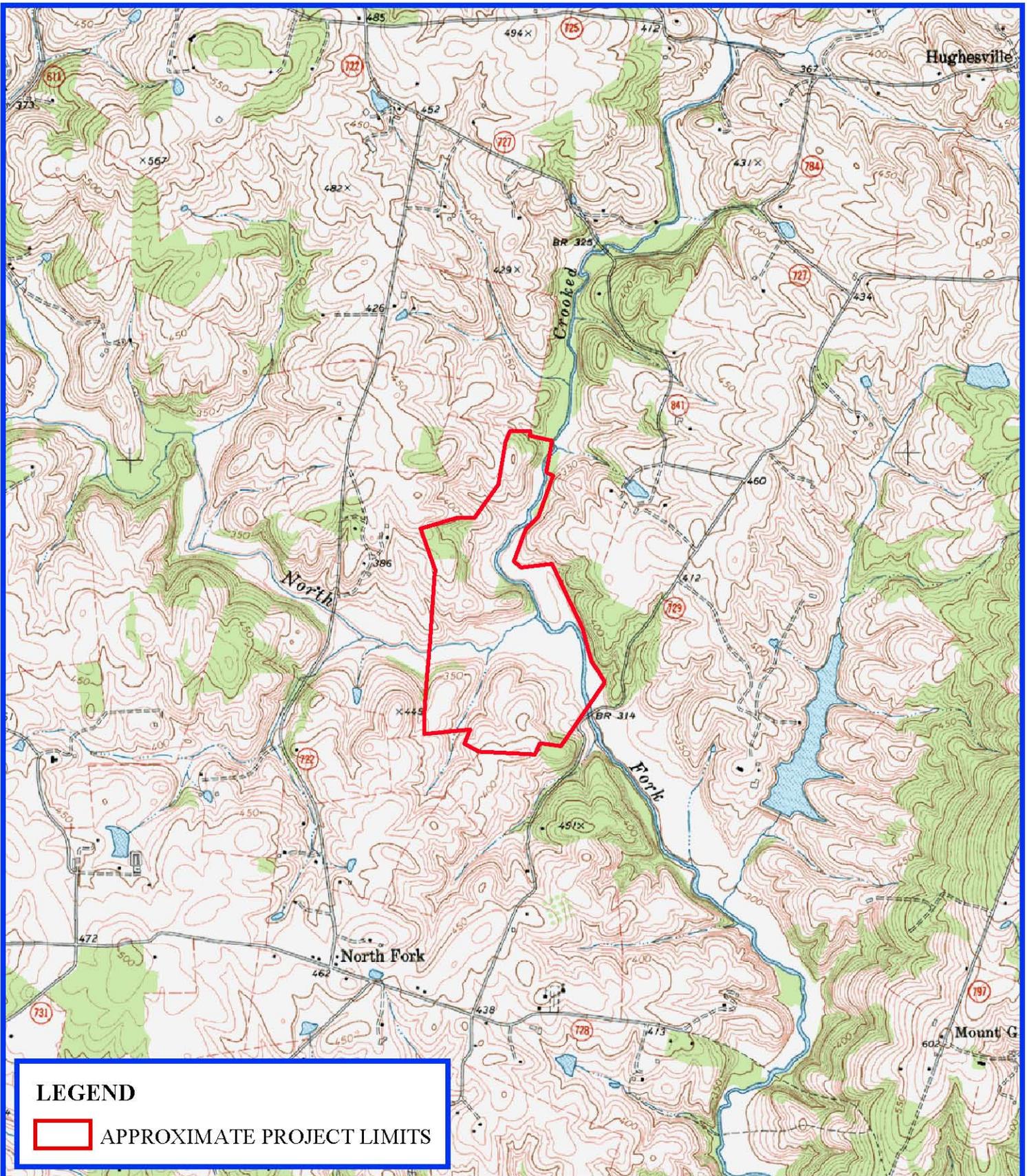
At the end of the active monitoring period the Sponsor shall offer to transfer all interest in the Bank, at no cost, to the current owners of the sites or their heirs. If the landowners or their heirs decline to accept the properties, the Sponsor shall then transfer interest to a public resource agency, a non-profit agency engaged in conservation activities, or an academic institution engaged in research activities subject to written approval of the receiving entity by the IRT.

F. Anticipated Schedule for Completion

The Sponsor plans to move forward with the Bank upon approval of the IRT. All necessary signatures are anticipated to be obtained by Summer 2009 with final plan approval by Winter 2010 and construction in Spring 2010.

V. PLANNED PRE-APPLICATION PROCESS

The Sponsor plans to meet with the IRT prior to submission of an MBI and Bank Development Plan for the Bank site to discuss plans for the Bank. This document will serve as the basis for these discussions. The Sponsor also welcomes the opportunity to meet with other interested parties to discuss the plans for this Bank.



LEGEND

 APPROXIMATE PROJECT LIMITS



CORPORATE | 1281 RANDOLPH RIDGE LANE, MANASSAS, VIRGINIA 20108
P: 703.393.4844 | F: 703.393.2934

RICHMOND | 106 NORTH THOMPSON STREET, RICHMOND, VIRGINIA 23220
P: 804.353.6017 | F: 804.353.6018

PROJECT LOCATION MAP

**GOOSE CREEK
ENVIRONMENTAL BANK
SHELburnE BANK SITE
LOUDOUN COUNTY, VA**

USGS Topo Quads: Lincoln, VA
Latitude: 39°04'43"
Longitude: 77°41'19"
Approx. Project Area: 190.19 acres
Elevation: 350' – 400'
Scale: 1 inch equals 2,000 feet
Source: Terrain Navigator Pro

