PROSPECTUS
FOR THE PROPOSED

PIEDMONT FARMS STREAM MITIGATION BANK

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I. SUMMARY

A. INTRODUCTION

Mitigation Services, Inc. (hereinafter, the "Sponsor") hereby proposes to establish and sponsor the Piedmont Farms Stream Mitigation Bank (hereinafter, the "Bank"), to be located in central Virginia. The proposed Bank will include two (2) sites located within Buckingham (Eastview Farm Site) and Albemarle (Fulfillment Farms Site) Counties. The two (2) sites encompass approximately 1,910 acres and 76,736 linear feet of stream channel. The intent of the Bank is to provide compensatory stream 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, and 02080207.

With this prospectus, the Sponsor proposes to include two (2) Bank sites that will generate an estimated 20,124 stream credits from the preservation, enhancement, and restoration of stream resources. The sites were selected after the 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 the inclusion in the Bank. The Sponsor may propose to develop additional sites, not included in this prospectus, with this Bank in the future.

B. SPONSOR AND AGENT QUALIFICATIONS

The Sponsor, and/or its affiliated company, Angler Environmental (hereinafter, the "Agent") currently operates or manages six (6) approved aquatic resources mitigation banks in Virginia, including the Blackjack Wetland Mitigation Bank, the Northern Virginia Regional Environmental Bank (NVREB), the Potomac Regional Environmental Bank (PREB), the Prince William Environmental Bank (PWEB), the Cannon Regional Environmental Bank (CREB), and the Woods at Warrenton Wetland Bank (WWWB). In addition, the Agent has successfully completed design and construction of over 60 full delivery project-specific mitigation sites approved by Interagency Review Team (IRT) member agencies.

II. BANK OBJECTIVES

The overall goal of the Bank is to fully compensate for authorized losses to streams 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. Restoration, enhancement, and preservation of onsite streams will provide stability and protection of these aquatic resources in perpetuity, preventing future impacts.

III. DESCRIPTION OF BANK SITES

A. EASTVIEW FARM BANK SITE

i. LOCATION AND CURRENT USE

The Eastview Farm Bank site is located along State Route 601, north of the town of Mount Vinco, and encompasses intermittent tributaries associated with Walton Fork. Approximately 8,678 linear feet of stream channel are present within the project 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.

ii. FEASIBILITY AND BASELINE DATA

Prior to preparation of this document and the decision to pursue development of the site, the Sponsor conducted a preliminary feasibility investigation of the site to gather baseline data and to assess the potential to support mitigation. Based on the results of these investigations, preliminary data suggests 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.

Buckingham County is predominantly a rural county. The main land uses are for agricultural and/or silvicultural activities. The majority of the County, including the Bank site and adjacent properties, is zoned for rural/agricultural uses. The future land use in the Buckingham Comprehensive Plan 2008-2013 for the Bank site and surrounding area is for rural, agricultural, and forestry areas. No known development is proposed adjacent to the Bank site.

A Waters of the U.S. (WOUS) delineation was conducted on the mitigation bank site in December 2008 and was approved by the U.S. Army Corps of Engineers (Corps) by letter dated February 20, 2009 (Project Number: NAO-2009-0080). The preliminary jurisdictional determination letter from the Corps is included in Appendix C and the *National Wetlands Inventory (NWI)*, and *Soils Maps* for the Bank site are provided in Appendix D for reference.

The Eastview site is characterized by historic agricultural land use and livestock grazing. Stream channels on the site are marked by the presence of bank erosion and geomorphic instability. However, stream channels are relatively connected to the floodplain and therefore show significant potential for restoration. Floodplain and headwater wetlands still exist within the project area despite historic land use practices. The contributing drainage areas to the un-named tributary and to Walton Fork are 220 and 6,130 acres, respectively (Appendix I).

The Bank site will contain the entire drainage areas of the stream reaches that drain to Walton Fork. The streams proposed for restoration and enhancement activities exhibit actively eroding banks, stream incision, mid-channel bars and excessive debris jams, headcuts, and a 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 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 over widened, 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 Bank site, 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 River watershed has increased over the past several years, Buckingham County has 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. The proposed restoration activities will not be part of a formal watershed plan.

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 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 the Virginia Department of Environmental Quality (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 several species of fish and birds 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 is likely present onsite and/or near the Bank site. The Sponsor will evaluate opportunities to enhance/restore suitable habitat for identified species on the Bank site as part of the mitigation work. The results of the DGIF database search are provided in Appendix G.

The Virginia Department of Conservation and Recreation's (DCR) Virginia Conservation Lands Needs Assessment Vulnerability (VCLNA) model, which is designed to anticipate urban, suburban, and rural growth based on potential future land use, ranks the project site as an '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 Bank site from future development, the landowner intends to place the entire property under a conservation easement with the Virginia Outdoors Foundation (VOF). The conservation easement will

protect the site from future development and restrict the residential usage to a maximum of one dwelling unit per 100 acres.

The Natural Landscape Blocks and Corridors VCNLA model illustrates how the property currently contains part of a large natural core landscape block. 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 Maps* provided in Appendix E. The map also shows that the 500-acre parcel located immediately east of Eastview Farm has been protected through a conservation easement.

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 (see Appendix G). Project activities, however, will not affect the viewshed of this resource due to State Route 655 that borders both parcels, the existing buffer on the identified property, and the location of the proposed mitigation work on the Eastview Bank site. The Bank Sponsor has agreed to conduct a Phase I archaeological study on a portion of the Bank site identified by VDHR during a previous site visit as having the potential to contain archaeological resources.

The Eastview Farm Bank site meets six (6) of the 10 suggested criteria outlined in Section C of the Virginia Offsite Mitigation Location Guidelines. Specific details are provided in Appendix F.

B. FULFILLMENT FARMS BANK SITE

i. LOCATION AND CURRENT USE

The Fulfillment Farms Bank Site is located along State Route 6 in Esmont, Virginia. The site encompasses tributaries and reaches of Ballinger Creek, Wolftrap Branch, and Joe Creek. Approximately 68,058 linear feet of stream channel are present within the project limits. *Location*, *Vicinity*, and *Aerial* maps have been provided for reference, along with *Mitigation Feasibility Map* depicting the anticipated stream and buffer preservation associated with the project site (Appendix A and B, respectively). The majority of the site is forested with hardwoods and planted pines. A small portion of the site, which was historically devoted to agricultural uses, has been maintained as fallow, open fields. The vast majority of these areas are currently in the Conservation Reserve Enhancement Program (CREP) and will be included in the Bank site as a future phase. The property is owned by the Wildlife Foundation of Virginia (WFV), a non-profit, 501(c)3 organization that uses the site to provide recreational opportunities to outdoor enthusiasts.

ii. FEASIBILITY AND BASELINE DATA

Prior to preparation of this document and the decision to pursue development of the site, the Sponsor conducted a preliminary feasibility investigation of the site to gather baseline data and to assess the potential to support mitigation. Based on the results of these investigations, preservation of onsite stream channels and the associated riparian buffers is feasible on the Bank site. All relevant data and analyses will be provided to the IRT as part of the MBI approval process.

Albemarle County is predominantly rural with mixed development centered near Charlottesville. The main land uses near the Bank site are for agricultural and/or silvicultural activities. The Bank site and surrounding areas are within a designated Rural Area as defined by the Albemarle County Land Use Plan. No known development is proposed adjacent to the Bank Site.

During the preliminary field investigations, very few wetland resources were observed within the stream mitigation areas. Prior to submitting subsequent banking documents, the Sponsor will prepare and submit a WOUS delineation to the Corps for review and approval. The *National Wetlands Inventory (NWI)* and *Soils Maps* for the Bank site are provided in Appendix D for reference.

Drainage areas to streams within Fulfillment Farm Bank Site range from approximately 29 to 7,000 acres (Appendix I). The site is characterized by historic agriculture land use and silviculture activities. Despite these land use practices the site hydrology has remained relatively unchanged with the presence of forested, scrub shrub, and emergent wetland areas along with several perennial and intermittent stream channels. Some stream ditching can be found on the site, however based on current conditions stream channels are stable. Other land use alterations are minor and the site will continue to stabilize with the permanent protection for riparian areas.

Onsite streams located within forested areas are high quality and will provide excellent opportunities for stream and buffer preservation. Channels exhibit optimal to sub-optimal channel conditions, which coupled with the existing riparian buffers, provide habitat and diversity within the channel and riparian corridor. These systems have intact riparian buffers that provide water quality and ecological benefits to the channel and downstream reaches. The stream reaches located within the fallow field areas exhibit predictable degradation due to previous agricultural land use practices. However, these streams are currently enrolled within the CREP program, which eliminates external perturbation and allows for channel evolution and channel resilience mechanisms to promote stability.

The Fulfillment Farms streams comprise a significant portion of the Ballinger Creek watershed, which is in the middle James River basin. This system has been identified as a 303(d) Impaired (Category 4) water. Preservation and riparian succession on the Fulfillment Farms Bank Site will provide an important water quality buffer to a significant length of Ballinger Creek and its tributaries within the Site. In addition, the Fulfillment Farms Bank Site is immediately upstream of, and contiguous to, the existing Lone Oak Stream Mitigation Bank. Preservation of the stream systems on the Fulfillment Farms Site will further enhance the existing Lone Oak Stream Mitigation Bank by protecting the watershed and granting greater long-term hydrologic stability to the downstream restoration reaches at this existing bank.

USACE visited the site on August 20, 2013. Onsite streams located within forested areas are high quality and will provide excellent opportunities for stream and buffer preservation. Channels exhibit optimal to sub-optimal channel conditions, which coupled with the existing riparian buffers, provide habitat and diversity within the channel and riparian corridor. These systems have intact riparian buffers that provide water quality and ecological benefits to the channel and downstream reaches. The stream reaches located within the fallow field areas exhibit predictable degradation due to previous agricultural land use practices. However, these streams are currently enrolled within the CREP program and will be included in the

Bank as a future phase. These areas will also be included in the mitigation bank limits protected by the restrictive covenant.

The potential for destruction or adverse modification to the stream resources on the proposed Fulfillment Farm Bank Site does exist. While there is a VOF easement, recorded in 1990, on the Fulfillment Farms property, this easement essentially only prohibits subdivision of the property and provides some limits on construction/development activities on the site. However, the easement allows for many activities that can result in destruction or adverse modification to streams, such as for livestock grazing, silvicultural, horticultural and agricultural activities, and the construction of an unlimited number farm buildings under 10,000 square feet. Additionally, the VOF easement does not impose any protections to the riparian buffers or streams on the site, and contains a section that specifically allows for the construction of dams for ponds and lakes. A restrictive covenant is proposed and therefore will ensure protection and preservation of the onsite streams and riparian areas, regardless of property ownership.

The DGIF online database revealed that several species of fish and birds considered to be of elevated concern are located within a 3-mile radius of the Fulfillment Farms Bank site. Suitable habitat for several of these species is likely present onsite and/or near the Bank site. The Sponsor will evaluate opportunities to enhance/restore suitable habitat for identified species on the Bank site as part of the mitigation work. The results of the DGIF database search are provided in Appendix G.

The DCR VCLNA model ranks the project site with areas of 5-8 for vulnerability to growth, again with a scale of 1-8, with '1' indicating a low threat and '8' indicating the highest threat. As noted above, the site is owned by the WFV, whose goal is to provide long-term outdoor recreational opportunities. The mitigation areas along with the use designation will protect the site from future development. Graphic depictions of the VCNLA models are on the attached *Virginia Conservation Lands Needs Assessment Models Maps* provided in Appendix E.

Based on a review of the VDHR DSS website, there are no known archeological resources that would be affected by development of this Bank site. The Dawson's Mill Farm site is located on the Bank site, but has not been evaluated for National Register eligibility. It consists of 19th and 20th century structures that represent vernacular buildings of that period. The Bank site property is also part of the Southern Albemarle Rural Historic District, which is a large geographic area encompassing a wide range of resources related to the central piedmont of Virginia. Project activities, however, will not affect any historic resources due to the nature of proposed mitigation. Preservation of stream reaches will act to protect the current riparian conditions and will not affect viewshed or other concerns related to historic resources. No land disturbance activities will be conducted as part of the mitigation measures on the Fulfillment Farms Bank site and therefore no further coordination is anticipated for historic resources.

The Fulfillment Farms Bank site meets five (5) of the 10 suggested criteria outlined in Section C of the Virginia Offsite Mitigation Location Guidelines. Specific details are provided in Appendix F.

IV. MITIGATION METHODS

Stream mitigation credits for the Bank 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 and livestock exclusion from applicable channels. The Sponsor has entered into agreements with each of the landowners to develop mitigation bank sites on the properties. The Sponsor will be responsible for the monitoring and maintenance of the mitigation areas to ensure the success of the Bank.

Stream restoration and enhancement will be based on a natural channel design process. The pattern, profile, and dimension of the degraded 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 only be used when site constraints require that these materials be used in order to protect existing infrastructure, ensure the stability of the systems, and/or maintain the integrity of the watershed. No temporary, or long-term structural management requirements are proposed to assure successful hydrologic/vegetative restoration. There are no known hydrologic disturbances on or adjacent to either of the sites. To the greatest extent feasible, based on ownership control, the entire watershed of streams within the Bank have been included within the limits of the Bank sites.

V. OPERATION OF THE BANK

The Sponsor will prepare and submit a MBI to establish the Bank. The MBI, as well as the development and operation of the Bank, will be in accordance with the *Compensatory Mitigation for Losses of Aquatic Resources: Final Rule, 33 CFR 332* and the most recent IRT-approved version of the Mitigation Banking Instrument Template, as well as any other applicable Federal, Commonwealth of Virginia, and local statutes, regulations, and guidance.

In addition, the Sponsor will submit a detailed Bank Development Plan (BDP) that will present clear goals and objectives for each Bank site. The BDP will contain details for the Bank site based on site specific data and modeling, including detailed soil and geotechnical information, existing stream channel assessments, and stream geomorphological surveys, as applicable. 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.

A. GEOGRAPHIC SERVICE AREA

The Bank sites are located in Buckingham and Albemarle Counties in the middle James Hydrologic Unit Code (HUC) 02080203. The service area for the Bank will incorporate the portions of HUCs 02080203 and 02080204 located within the piedmont physiographic province, as well as the entirety of HUCs 02080205 and 02080207. This service area will include portions or all of Greene, Orange, Louisa, Albemarle, Fluvanna, Nelson, Buckingham, Amherst, Bedford, Campbell, Appomattox, Cumberland, Goochland, Powhatan, Chesterfield, Amelia, Prince Edward, Nottoway, Dinwiddie, Prince George, Hanover, and 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.), the physiographic region of the Bank Sites, as well as the approved service areas for mitigation banks in the watershed. A *Service Area Map* for the Bank is provided in Appendix H.

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/or wetlands may be required for the implementation of water control features and/or channel restoration activities. The Sponsor, as part of the Bank approval process, will obtain any necessary Clean Water Act (CWA) permits, as well as all other applicable federal, state, and/or local permits.

C. OWNERSHIP ARRANGEMENTS

The Sponsor will establish the Bank and be the operator of the Bank through the credit sale and monitoring period. The Sponsor has established a landowner agreement with the owners of each Bank site, which will allow the Sponsor to perform mitigation activities within the portions of land designated for mitigation. The agreements also require the landowners 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. The owners of the Eastview site have a mortgage on the entire property; no other liens exist. A VOF easement exists on the Fulfillment Farms site (Appendix J).

D. LONG TERM MONITORING AND MAINTENANCE

The Sponsor will be responsible for a monitoring and maintenance period following construction of the mitigation area to ensure success of the mitigation plan.

Following construction activities, the Sponsor will implement a monitoring plan to ensure that the applicable vegetation and stream stability success criteria are being met. The monitoring plan will be detailed in the BDP for each Bank site and will be in accordance with Section 332.6 of the Federal *Compensatory Mitigation for Losses of Aquatic Resources* regulations. Determinations regarding specific performance criteria, other long-term monitoring and/or management activities, the operational life of the Bank, as well as potential remedial actions and financial assurances will be similarly developed and contained in the MBI and BDP.

The landowners of the Eastview Farm intend to place the entire property under a conservation easement with the VOF. As noted above, both Bank sites will have additional restrictions in the form of a restrictive covenant, or other equivalent instrument. The protective instrument will be recorded on each of the Bank sites in the applicable County land records prior to the sale of any credits from that Bank site to assure preservation of these lands in perpetuity. At the end of the active monitoring period, the Sponsor will transfer all interest in the Bank, at no cost, to the designated Long Term Steward, subject to written approval by the IRT. The likely party responsible for long-term management would be a non-profit conservation organization.

E. ANTICIPATED SCHEDULE FOR COMPLETION

The Sponsor plans to diligently pursue approval of the Bank through the IRT. All necessary signatures on the MBI and BDP are anticipated to be obtained by fall 2013, with final plan approval being obtained by winter 2013 and construction initiating by spring 2014.

VI. PLANNED PRE-APPLICATION PROCESS

The sponsor plans to meet and/or complete a conference call with the IRT prior to the submission of the MBI and BDP 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 this Bank.

VII. CONTACT INFORMATION

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