

## PROSPECTUS

## **PROPOSED POTATO RUN STREAM MITIGATION BANK**

## **CULPEPER COUNTY, VIRGINIA**

## ECS PROJECT NO. 19303-A

Sponsor/Land Owner Information:

Potato Run, LLC 8000 Cinder Bed Road Lorton, Virginia 22079

#### Prepared by/Authorized Agent:

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## AUGUST 27, 2013

Prospectus

### 1) Introduction

Potato Run, LLC (hereinafter, the Sponsor) proposes to establish, maintain, and sponsor the Potato Run Stream Mitigation Bank (hereinafter, the Bank) to be located in Culpeper County, Virginia. Potato Run, LLC is the land owner of the proposed Bank site. The Bank consists of eight (8) contiguous parcels of land totaling approximately 1,000-acres situated in the northwestern quadrant of the intersection of State Route 647 (Algonquin Trail) and State Route 663 (Batna Road) in Culpeper, Virginia. The parcels are further identified by Culpeper County Tax Map #65, Parcels 10, 11, 12, 13, 19, 20, 25 and 54. All parcels are located within the Potato Run watershed which is a component of the Rappahannock River watershed. The purpose of the Bank will be to provide compensatory stream mitigation credits designed to offset the authorized unavoidable impacts within the proposed geographic service area (GSA) of the Bank. Specific HUCs within the primary GSA are discussed in Section V. The parcels noted above are currently owned by the proposed Bank Sponsor.

Stream mitigation credits will be established through the enhancement, restoration and preservation of existing streams, livestock exclusion, protection and creation of Protected Species habitat (where applicable), and preservation and enhancement of existing adjacent upland buffers. The Sponsor currently controls the entire Bank site and will be responsible for a monitoring and maintenance period following the construction of the mitigation areas to ensure success.

The Mitigation Banking Instrument (MBI) and the development and operation of the Bank will be in general accordance with applicable State and Federal statutes, regulations, and guidance and as approved by the IRT.

#### 2) Location and Current Use

The Potato Run Stream Mitigation Bank consists of eight (8) contiguous parcels of land totaling approximately 1,000-acres situated in the northwestern quadrant of the intersection of State Route 647 and State Route 663 in Culpeper, Virginia (Figure 1-1). The parcels are further identified by Culpeper County Tax Map #65, Parcels 10, 11, 12, 13, 19, 20, 25 and 54. The site consists primarily of gentle and moderate slopes and is within the Potato Run drainage basin (Figure 1-3). The site is located at Latitude 38°24'35.20" and Longitude 77°54'18.54" and can be found on the Culpeper East USGS Quadrangle Map, revised 1999.

Most of the project site is currently an active farm with open pasture used for crop production and the grazing of a variety of livestock, including cattle. The proposed mitigation areas are located in the central and southeastern portions of the project site along the tributaries to Potato Run, the floodplains of Potato Run, and Potato Run itself. The site consists of a mixture of open, cleared land in active agricultural production with some forested areas located throughout (Figure 1-3). The Bank site is, for the most part, a surface water driven system. The area is located within an agriculturally zoned area of Culpeper County.

Based on a review of historic aerial photography, interviews with the property owner, and other applicable historic research, the previous land use of the site and its adjacent properties has been mostly unchanged since at least the 1860s. As indicated in a DHR

database review, the site and neighboring land represent a good depiction of what the area looked like during the Civil War, with a mixture of forested land, cultivated fields, and some residential structures.

#### 3) Objective of the Bank

The goal of the Bank is to preserve and enhance onsite stream systems and some supporting wetlands, restore unstable reaches that contribute to erosion and excessive sediment, remove invasive species, plant heavy or light riparian buffers where needed, and exclude livestock access to address excessive nutrients and the overall water quality of Potato Run, its tributaries, and the watershed these Waters contribute to. The Bank will provide compensatory stream mitigation credits designed to offset the authorized unavoidable impacts within the proposed geographic service area of the Bank. The Bank will also serve to preserve and enhance the ecological health of the watersheds within which the Bank will operate. These goals will be accomplished by enhancing degraded streams and agricultural fields located on the Bank site to higher value natural aquatic and upland resource areas. These areas will be designed to provide for the replacement of the chemical, physical and biological functions of wetlands and other aquatic resources which are lost as a result of authorized impacts.

As shown on the enclosed Compensation Crediting Forms for the designated stream bank reaches, the majority of the project involves the preservation of 200-foot buffers around the stream channels that will serve to exclude the existing livestock onsite from access to the streams and their buffers. The preservation areas will also be enhanced through stream bank plantings, which will include invasive species removal, heavy buffer planting and light buffer planting where appropriate and indicated on the enclosed conceptual development plan. Based on the Compensation Summary Form completed for the project, an estimated 29,256 linear feet of stream channel will be dedicated to the proposed mitigation bank. An estimated 37,238 compensation credits would be established from these streams and the above-mentioned methods of enhancement and preservation.

Based on the wetland delineation conducted by ECS and approved by the U.S. Army Corps of Engineers (NAO #2012-771), the following table provides an estimated amount of compensation types that will be provided on the Potato Run Mitigation Bank.

Compensation Type	Total Linear Footage
Perennial Stream	10,619
Intermittent Stream	18,637

Please refer to the summary table and United Stream Methodology forms for a breakdown in the reaches and compensation linear footage proposed for the Bank.

The majority of proposed Bank activities include enhancement at approximately 90% of the Bank. Enhancement activities will include mostly heavy stream bank plantings and invasive removal activities for Japanese Honeysuckle (*Lonicera japonica*), Tree of Heaven (*Ailanthus altissima*), and Multiflora rose (*Rosa multiflora*). Approximately 10% of the Bank will be included as preservation. Areas proposed for preservation only generally are encompassed by established forested riparian buffers.

#### 4) Mitigation Bank Development

Prior to the preparation of this Prospectus and the decision to pursue development of the Bank, the Sponsor conducted a feasibility investigation for the site to gather baseline data and to assess the potential for supporting stream mitigation. The feasibility study included the following:

- Pre-Application Meeting with the U.S. Army Corps of Engineers
- Wetlands Delineation
- Stream Evaluation (Unified Stream Methodology)
- Site Reconnaissance
- IRT Presentation and Site Meeting
- Geotechnical Investigation adjacent to select stream reaches

Based on the results of these investigations, preliminary data suggests that the enhancement, restoration and preservation of streams are feasible on this Bank site. Relevant data, analyses, and engineering calculations will be provided to the Interagency Review Team (IRT) as part of the MBI approval process.

Development of the proposed Bank will involve stream mitigation using riparian buffer restoration, stream enhancement, and preservation within the project site area.

The Sponsor will develop an MBI for the Bank for approval by the IRT which will include a detailed Mitigation Bank Development Plan (MBDP) that will present clear goals and objectives for the Bank site. The MBDP will consist of details for the Bank site based on site-specific data including detailed soil and geotechnical information and existing wetland and stream channel assessments. Stream mitigation credits will be determined using an assessment approved by the IRT. Preliminary mitigation credits have been assessed by ECS and are included in this Prospectus. The Applicant reserves the right to adjusts these credits pending any findings of threatened and endangered species onsite or other onsite resources or improvements.

Development of the Bank, including all construction activities, will be performed to avoid and minimize temporary and permanent impacts to the environment to the maximum extent practicable. With the exception of improvements to existing stream crossings, impacts to existing wetlands and Waters of the U.S. will likely be avoided. Temporary impacts to streams may be necessary for the implementation of simple water control structures, hydrologic barriers, etc. The Sponsor, as part of the Bank approval process, will obtain any necessary Clean Water Act (CWA) and/or VWP permits.

#### Bank Phasing and Improvements

The Bank will be developed in two Phases: Phase A and B. Phase A will consist of intermittent and perennial streams located on the eastern portion of the property and encompassing a large farm pond. As part of the Phase A Bank development, the pond will be restored into stream channel to facilitate aquatic life movement, sediment transport, and prevent thermal impact to downstream resources. A preliminary assessment of Phase A using the USM forms was conducted. Of the three (3) existing stream crossings on this portion of the Bank, two (2) crossings will be removed and the one (1) crossing used for

main access to the overall property will be improved with a culvert sized to withstand the 10year storm of these upstream systems.

Phase B of the Bank will consist of the remainder of the streams onsite including Potato Run. Among the enhancement and other proposed improvements outlined on the USM forms and Conceptual Plan enclosed, the Bank proposes a revised farm road network that will remove several existing culverts used at crossings of Waters and wetlands and improve those Waters and wetlands crossings necessary to access all portions of the overall 1,000 acres and fields. The Sponsor has identified eighteen (18) existing crossings and proposes to maintain and improve where necessary eight (8) of these crossings. As shown on the enclosed Plan, these crossings are necessary to continue farming activities onsite and access

#### 5) Proposed Service Area

Service area for the proposed Bank site will be included in the Mitigation Bank Development Plan (MBDP) and will be consistent with current local, state, and federal regulations. The Bank site is located within the Potato Run watershed which flows directly into the Rapidan River. The current Bank site is located in the Upper Rappahannock Hydrologic Unit Code (2080103) which includes portions of Orange, Madison, Culpeper, Rappahannock, Greene, Stafford, Spotsylvania and Fauquier Counties. As approved for the Blackjack Mitigation Bank in Culpeper County, VA and discussed during the IRT meeting in May 2013, the proposed service area for the Bank should include HUC 2080103 and portions of HUC 2080104 (portions of King George, Fredericksburg, Essex, Caroline, Westmoreland, Richmond, Lancaster, and Northumberland Counties. Refer to the enclosed service area map on Figure 4.

#### 6) Need and Technical Feasibility

Northern Virginia is part of the fastest growing area in the country and Culpeper County supports the adjacent Washington, D.C. metropolitan region through its close vicinity and residential and agricultural land. While Culpeper County itself remains a mostly rural culture, there are growth, development and roadway and infrastructure projects that are on the rise within the region and the proposed watershed service area.

Potato Run is a major tributary of the Rapidan River and its confluence with the Rapidan River is only 0.75-mile southeast and downstream of Potato Run. The current Bank site is located in the Upper Rappahannock Hydrologic Unit Code (2080103) which includes portions of Orange, Madison, Culpeper, Rappahannock, Greene, Stafford, Spotsylvania and Fauquier Counties.

#### 7) Ecological Sustainability

#### a. Current Site Conditions

The Potato Run project site is approximately 1,000-acres and consists of several parcels of land located in Culpeper County, Virginia. Topography at the site generally slopes towards Potato Run, which flows to the southeast in the central portion of the site and eventually to the Rapidan River. The site has been improved by two residences and multiple farm buildings and a large pond. Most of the site is currently used for agricultural grazing purposes. The proposed mitigation bank will include approximately 475-acres of the overall 1,000 acres. Within this area there are proposed 200 foot buffers along Potato Run and its

tributaries. Several fringe wetlands are located along these stream systems and the streams appear to be predominately recharged by surface runoff.

#### • Stream Conditions

Potato Run and its tributaries vary in water quality and buffer type and are influenced by the long-term agricultural use of the site and the adjacent lands and historic beaver activity. A geotechnical study was conducted to investigate the bedrock along Reaches "C" and "G" and parts of Potato Run to determine the feasibility of restoration and depth of bedrock. Bedrock depths were observed at as shallow as 2.5 feet, making any priority restoration activity infeasible in these areas. The bedrock investigation is included in Appendix II.

# b. Threatened and Endangered Species, Historic Properties, Impaired Waters, and other Protected Resources

ECS conducted an online review of the Virginia DGIF Fish & Wildlife Information System for the presence of documented occurrences of threatened and endangered species within a two-mile radius of the project site. Based on the results of this search, the Rapidan River is listed as a potentially anadromous fish use stream. The Rapidan River is located approximately 0.75 linear miles (1.1 river miles) from the proposed mitigation site. ECS also completed a U.S. Fish and Wildlife Service project review to identify federally-listed species that have been observed onsite or may be located on the project site due to potential habitat. The search identified the project site as potentially having suitable habitat for the dwarf wedgemussel (*Alasmidonta heterodon*), a Federally-listed endangered species. Based on the site reconnaissance by ECS, the project site appears to have suitable habitat to support the dwarf wedgemussel. The species lives in shallow to deep rivers and creeks of various sizes where the current is slow to moderate and nearly silt free.

A survey for dwarf wedgemussels was conducted in August 2013. While dwarf wedgemussels were not observed, an abundant amount of other bivalves were noted in Potato Run and its tributaries and therefore it is in ECS' opinion that the proposed Bank contains suitable habitat for the dwarf wedgemussel. However, no compensation credit will be applied to tributaries in the proposed Bank for threatened and endangered species habitat based on discussions with the IRT. The dwarf wedgemussel survey is included in Appendix II.

ECS conducted a review of the Virginia Department of Historic Resources (DHR) Data Sharing System on January 31, 2013. Based on the findings of this review, one (1) architectural listing was mapped on the project site. (Refer to the enclosed site summary and DHR map). The DHR ID# 068-5007 identifies a large area for Morton's Ford Battlefield and Rapidan River that extends along Potato Run on the western boundary of the site and encompasses portions of the property along Blackjack Road, Algonquin Trail, and Stringfellow Road. The area has historic significance dating back to 1864. The site has retained some of its historic use from that time, including a combination of wooded lots and cultivated fields. The Morton's Ford Road which is now abandoned was used by the Federals to approach the battlefield. This area has been recommended Eligible for listing as of January 25, 2007 due to the existing conditions and historic significance to the Civil War. DHR indicates this area is "likely deserving of future preservation efforts". To date, a Phase I archaeological survey has not been conducted.

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A review of DEQ's Water Quality Assessment GIS Application indicated that Potato Run, its tributaries, and other waters nearby were not listed as impaired waters under Section 303(d) due to an insufficient amount of water quality data in the vicinity (Refer to enclosed DEQ map). As observed during ECS site visits, portions of the onsite streams are subject to livestock access and therefore they likely have degraded water quality. The Bank proposes to contribute to improving water quality through stream restoration and therefore meets an additional Virginia Off-site Mitigation Location Guideline.

#### c. Encumbrances

No encumbrances including liens, right-of-ways, etc. are known to exist on the property.

#### d. Previous Land Uses

Based on a review of historic aerial photography, interviews with the property owner, and other applicable historic research, the previous land use of the site and its adjacent properties has been mostly unchanged since at least the 1860s. As indicated in a DHR database review, the site and neighboring land represent a good depiction of what the area looked like during the Civil War, with a mixture of forested land, cultivated fields, and some residential structures.

#### e. Current Zoning of Adjacent Properties

The adjacent properties to the Bank are widely agricultural, with a mix of croplands and livestock grazing. Generally all surrounding areas of the Bank are zoned agricultural.

#### f. Current Zoning of the Bank Site

The parcels containing the Bank have been improved by two residences and multiple farm buildings and a large pond. Most of the site is currently used for agricultural and grazing purposes. The Bank site is currently zoned agricultural land.

#### g. Historical Hydrology

Based on a review of historical aerial photography, the project site has been agriculturally used since at least the mid 1800s. Several tributaries of Potato Run and their headwaters are located on the Bank site and will be included in the Bank. Groundwater seeps appear to historically be the main source of hydrology to the Waters and wetlands onsite.

#### h. Jurisdictional Determination by the U.S. Army Corps of Engineers

A jurisdictional determination site meeting was conducted in November 2012 at which time two disturbed areas within Waters of the U.S. and wetlands were observed. The first area appears to be an excavated beaver pond with an intermittent stream feeding it. A second disturbed area appears to be a former irrigation swale which has been disturbed by farm equipment. This area has now been delineated as a linear PEM wetland that connects to a PFO wetland within the tree line. These areas were brought to the attention of the landowner and the landowner voluntarily agreed to restore and stabilize the area. An update letter was sent to the USACE on April 26, 2013 indicating that these restoration activities have been completed on the site. A follow-up jurisdictional determination site meeting was conducted on January 10, 2013 and a letter was issued (NAO #2012-771 dated January 17, 2013).

A site meeting was conducted by the IRT on June 5, 2013 at which time the restored beaver pond was stabilized and vegetation was re-established on the banks and fringe of the wetlands and Water.

#### i. Virginia Off-site Mitigation Location Guidelines Compliance

Under the USACE Virginia Off-Site Mitigation Location Guidelines (dated March 5, 2008), the proposed mitigation bank will meet the effort to "Conserve or restore habitat for one for more state or federal-listed species, including Federally designated critical habitat or State designated Threatened and Endangered Species Waters" by stream enhancement through efforts including riparian buffer plantings, invasive species removal, and fencing out livestock. As detailed above, potential habitats for threatened and endangered species are located onsite. Additionally, the bank will "conserve or restore" a tributary to an area designated by DGIF as an Anadromous Fish Use Area.

#### 8) Future Ownership and Long-Term Management

The Sponsor will manage the Bank for the operational life of the Bank, however, the Sponsor may transfer the Bank to a public resource agency, a non-profit organization involved in conservation, or the like, subject to approval of the transfer by the IRT.

The majority of streams and wetlands within the Bank are recharged by headwaters located onsite. Easements will be extended to protect the delineated headwaters of the streams in order to preserve their hydrology. In addition to a minimum 200-foot buffer around headwaters, a minimum 200-foot riparian buffer will preserve streams within the bank in order to exclude livestock and address water quality issues. These defined areas will be placed under a Conservation Easement which will protect the bank areas in perpetuity from future development. The Easement will be held between Potato Run, LLC and an approved land holding company. The legal easement will be recorded on the Bank site in the County land records.

Following construction activities, the Sponsor will implement a monitoring plan to ensure that the hydrology, vegetation, and success criteria outlined in the MBDP are met. The monitoring plan will be detailed in the final MBI for the Bank 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 also be developed and will be included in the MBI.

#### 9) Sponsor and Agent Qualifications

The Sponsor's anticipated successful completion of the Mitigation Bank project is based on the extensive preliminary studies and feasibility work conducted for this project. Additionally, the Sponsor's Agent, ECS Mid-Atlantic, LLC (ECS), has developed this Prospectus and conducted the field work to evaluate the wetlands and stream channels onsite. ECS (the Agent) has experience in all stages of the mitigation banking process and is supported by a staff with design and oversight experience in mitigation and restoration projects.

#### Red Hill Stream Mitigation Bank, Loudoun County, Virginia

ECS prepared stream restoration/enhancement plan for mitigation banking that was approved by the Interagency Review Team in September 2008. Stream assessments on approximately two-miles of perennial and intermittent streams were conducted utilizing the Unified Stream Methodology on a 325-acre parcel to quantify the current functionality of the aquatic system. ECS is also responsible for mitigation credit calculation, stream restoration design and planting plan design and implementation. ECS is currently providing stream and success monitoring for restoration and enhancement activities.

#### Rock Hedge Mitigation Bank, Loudoun County, Virginia

ECS provided assessments, restoration and enhancement design, plant selection, construction oversight and post-construction monitoring for a mitigation bank preserved in a conservation easement for 2,000 linear feet of stream restoration/relocation and the creation of a six-acre wetland. ECS conducted longitudinal profiles, cross sectional analyses, vegetation analyses, stem counts and general site compliance evaluations. ECS also provided As-Built plan reviews for design compliance and installation of groundwater monitoring wells and stream gages. Monitoring for this Bank is on-going as of 2013.

#### 10) Long-Term Sustainability (Assurance of Water Rights) a. Existing Hydrologic Disturbances

Extensive beaver activity has been observed on the proposed Bank. Dams have been created and impede the flow of hydrology and aquatic life downstream. Additionally, livestock access to the streams is an additional hydrologic disturbance which will be treated by their exclusion and heavy and light riparian buffer plantings.

#### b. Temporary or Long-term Structural Management Requirements

Potato Run, LLC proposes long-term structural management requirements (i.e. culverts at existing Waters and wetlands crossings), as indicated on the enclosed conceptual plan. Where indicated on the conceptual map, existing culverts will be replaced as necessary and counter-sunk where appropriate to provide suitable access to both the overall property and to the mitigation bank areas and minimize disruption to the movement of aquatic organisms along the channel bed. Wetland and stream crossing with culverts are proposed in existing crossing locations and will be no more than 30-feet in width.

#### c. Water Data

A Watershed/Drainage study was conducted to determine the designation of the Watershed credit using the USM forms for Compensation Credit. Several onsite streams contain 95-100% of their watersheds onsite as shown on the enclosed map.

#### 11) Adjacent Property Owners

The following table represents a list of adjacent property owners as of February 1, 2013. As requested, mailing labels are enclosed with this Prospectus for the following adjacent land owners:

Name	Mailing Address	Tax Map Parcel
PERRYMAN, EDWARD H ET UX TR	21026 BATNA RD CULPEPER, VA 22701	65-13A
PERRYMAN, WILLIAM HENRY ET ALS	21058 BATNA RD CULPEPER, VA 22701	65-9

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Name	Mailing Address	Tax Map Parcel
PERRYMAN, JOHN E JR & SHAHAN, FAYE U	21088 BATNA RD CULPEPER, VA 22701	65-9A
SILVA'S CONSTRUCTION CORP	10619 JONES ST, 3RD FL STE 301B FAIRFAX, VA 22030	65-7A
SOOKSANGUAN, TARNEY	21236 BATNA RD CULPEPER, VA 22701	65-25D
PRITT, LAWRENCE M ET UX	21272 BATNA RD CULPEPER, VA 22701	65-25B
JENKINS, WADE W III ET UX	21412 BATNA RD CULPEPER, VA 22701	65-25F
BELLE MEADE FARM LLC	21424 BELLE MEADE FARM RD CULPEPER, VA 22701	65-25C
COTTOM, WILLIAM	4806 SPRAYER ST ALEXANDRIA, VA 22309	65-14
WALKER, LEWIS C ET UX	19238 INGLEWOOD RD CULPEPER, VA 22701	64-67a
WALKER, JOHN M ET UX	PO BOX 547 MANASSAS, VA 20108	64-67
DINKINS, J MADISON JR	2342 HAMILTON AVE WILLOW GROVE, PA 19090	64-70
REDDISH, TRINA W	1921 NEW DAWN DR HARRISBURG, PA 17110 9447	64-71
WAUGH, ABRAM	7315 KEENAN ST LAMOTT, PA 19027	64-20
BOWLES, ROBERT W JR	21226 BLACKJACK RD CULPEPER, VA 22701	64-19a and 19b
TIBBS, WALTER ET UX	125 HOUSTON AVE GLENSIDE, PA 19038	64-19
HARRELL, JAMES ET UX	1831 W. ELM TERRACE OLATHE, KS 66061 3877	64-73
DINKINS, ERNEST ET UX	21066 BLACKJACK RD CULPEPER, VA 22701 7610	64-18
PEUGH, ARTHUR E SR ET UX	21090 BLACKJACK RD CULPEPER, VA 22701	64-17
HART, HOWARD ET UX	21066 BLACKJACK RD CULPEPER, VA 22701	64-16
RENO, EDWIN DELMAR ET UX	18266 KIBLER RD CULPEPER, VA 22701	64-15
SOUTHARD, ROGER ET AL	14422 RIXEYVILLE RD CULPEPER, VA 22701	52-39B
HENNAGE, WILLIAM EDISON	20362 BLACKJACK RD CULPEPER, VA 22701	52-40A and 52-40
HITT, GEORGE EDWIN ET UX	20287 BLACKJACK RD CULPEPER, VA 22701	53-49
E & H FARM LLC	8722 LORFAX DR LORTON, VA 22079	53-48
DASILVA, MANUEL C ET AL	5014 EIGHTH ST ALEXANDRIA, VA 22312	53-46A & 53-63
E & H FARM LLC	1751 GILSON ST FALLS CHURCH, VA 22043 1131	53-57, 53- 55, 53-53





