

## Prospectus

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# **FROG BOTTOM UMBRELLA MITIGATION BANK**

**Pittsylvania County, Virginia**

**December 6, 2013**

**Prepared For:**  
Frog Bottom, LLC  
Mr. Andrew Wall  
Mrs. Staci Wall  
Post Office Box 1127  
Chatham, Virginia 24531

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112 South Main Street  
Post Office Box 556  
Gretna, Virginia 24557



Phone: 434.656.8961  
Fax: 434.656.8995  
[www.reynoldsclark.com](http://www.reynoldsclark.com)

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## 1. Introduction

### A. Summary

Frog Bottom, LLC (Sponsor) proposes to create the Frog Bottom Umbrella Mitigation Bank (Bank) to provide compensation for unavoidable impacts to waters of the United States (WOUS) in the Roanoke River drainage basin. The property, located in Pittsylvania County (see Figure 1-1), contains 122.8 acres along the Banister River. It also contains tributaries to the Banister River.

The bank will serve the following hydrologic unit codes, which can be seen in Figure 1-2:

**TABLE 1-1 HUC Areas**

HUC	Description	Counties (portions of, see Figure 1-2)
03010101	portion of upper Roanoke River	Bedford, Franklin, Pittsylvania, Campbell
03010102	middle Roanoke River	Campbell, Charlotte, Halifax, Mecklenburg, Appomattox
03010103	upper Dan River	Henry, Pittsylvania, Danville, Martinsville, Franklin
03010104	lower Dan River	Danville, Pittsylvania, Halifax, Mecklenburg
03010105	Banister River	Pittsylvania, Halifax

The proposed service area is the same service area used for Banister Bend Mitigation bank. Since this proposed bank is in the same primary HUC, the same service area is proposed.

The property is currently a cattle and horse farm and the livestock have unrestricted access to all streams, ponds and the Banister River. The Sponsor will construct a fence to restrict livestock access from the Banister River, tributaries and ponds within the 122.8 acres shown in Figure 1-3.

The Sponsor intends to develop this bank site and add additional bank sites in the future; therefore an umbrella bank is being proposed. This is being developed to provide compensatory mitigation credits for unavoidable impacts in the HUC areas listed above. The property was selected for a mitigation site after an extensive property search in south central Virginia.

Approximately 8,657 credits could be achieved on the property. They will be generated from a combination of buffer preservation, planting trees in the buffers, stream bank restoration, and livestock exclusion. Very little excavation work will be done. The majority of work involves planting woody stems. Grasses and live stakes will be planted along the right Banister River bank to restore understory vegetation in bare areas. Section 4 of this report contains more details about the work to be performed.

### B. Sponsor and Agent Qualifications

The Sponsor and Owner, Andrew Wall and Staci Wall, have over ten years of experience in the mitigation banking business. They are also the managers of Banister Bend Mitigation Bank, which is just downstream of this site.

The entire family has a love for the outdoors, wildlife and protecting the streams and rivers that they enjoy. This is demonstrated through their community service and previous projects with Ducks Unlimited and DEQ for habitat creation at Banister Bend.

Reynolds-Clark Development, Inc. (Agent) has extensive experience in permitting with the DEQ and ACOE. Reynolds-Clark currently serves as the agent for the Banister Bend Mitigation Bank and prepares the annual monitoring reports.

### **C. Contact Information**

Sponsor: Frog Bottom, LLC  
Mr. Andrew D. Wall  
Mrs. Staci T. Wall  
Post Office Box 1127  
Chatham, Virginia 24531  
Phone: 434.203.7663  
Email: [andrew@banisterbend.com](mailto:andrew@banisterbend.com)  
[drewandstaci@msn.com](mailto:drewandstaci@msn.com)

Owner: Frog Bottom, LLC  
Mr. Andrew D. Wall  
Mrs. Staci T. Wall  
Post Office Box 1127  
Chatham, Virginia 24531  
Phone: 434.203.7663  
Email: [andrew@banisterbend.com](mailto:andrew@banisterbend.com)  
[drewandstaci@msn.com](mailto:drewandstaci@msn.com)

Agent: Reynolds-Clark Development, Inc.  
Mrs. Gretchen B. Clark, P.E., President  
Post Office Box 556  
112 South Main Street  
Gretna, Virginia 24557  
Phone: 434.656.8961  
Email: [gclark@reynoldsclark.com](mailto:gclark@reynoldsclark.com)

## 2. Bank Site Description

### A. Location and Current Use

The bank is located in Pittsylvania County, just east of Chatham along the Banister River. It is currently a horse and cattle farm where the livestock has free access to the river, streams and wetlands on the property. The property is accessed by a private road which begins at the end of State Road 1006, off of Route 57/Halifax Road (See Figures 1-1 and 1-4).

The proposed site includes 122.8 acres of the current 190 acre tract. The current owner has agreed to sell the riverfront and streams to the bank Sponsor (See Figure 1-7). Fencing will be installed to keep the livestock on the remaining 67.6 acres and out of the streams and Banister River.

### B. Zoning/Easements

The property is currently zoned (A-1) Agriculture. This designation is intended for rural pasture and forested land in the County. There are no plans by Pittsylvania County to change the designation of this property or areas surrounding it.

There is a 50' ingress/egress easement across the west fence line of the remaining 67 acre tract to allow access for the Sponsor and Owner (see Figure 1-7). A title search was prepared before the property was purchased and there are currently no easements on the property (see Appendix A). The entire parcel will be placed in a conservation easement once the banking instrument is established and signed.

### C. Preliminary Wetland and Stream Delineation

Streams and wetlands have been identified by the Agent and Sponsor in preliminary site visits and are shown in Figure 4-1. The majority of the property is in the 100 year flood zone of the Banister River and has wetland characteristics and a high water table. A formal wetland delineation has not been performed at this time.

### D. Soils Data

The bank site is located within the Piedmont Physiographic Province. This wide spread area is well dissected by streams. According to the *Soil Survey of Pittsylvania County* conducted by the United States Department of Agriculture, the general soil description for the bank site is Meadows-Stoneville. The soils are gently sloping, shallow and well drained soils that have a gravelly, loamy subsoil or a clayey subsoil. They are moderately permeable to rapidly permeable.

For a more detailed description of the soils located on the property, see Figure 1-5. Those soils can be described as follows:

- **7A – Chenneby loam**, 0 to 2 percent slopes, occasionally flooded. This soil is very deep, nearly level, and somewhat poorly drained. It is typically located on low flood plains along rivers and large creeks and is occasionally flooded for brief periods from late fall to spring. The soil is not highly erodible, making it well suited to cultivated crops.

- **18B3 – Hiwassee clay loam**, 2 to 7 percent slopes, severely eroded. This soil is very deep, gently sloping, and well drained. It is found on high terraces along large streams. This soil is moderately well suited to cultivated crops and is known to be used for pasture or hay.
- **20B – Leaksville silt loam**, 0 to 4 percent slopes. This soil is moderately deep, nearly level to gently sloping, and poorly drained. It is commonly found on low flats, in swales, in slight depressions, and on low, broad ridges. This soil is moderately well suited to cultivated crops.
- **35B – State sandy loam**, 0 to 4 percent slopes, rarely flooded. This soil is very deep, nearly level to gently sloping, and well drained. It is typically located on low stream terraces. Some areas containing this soil are used for cultivated crops, however, this soil meets the requirements for prime farmland.
- **36B – Stoneville silt loam**, 2 to 7 percent slopes. This soil is deep over soft bedrock, gently sloping, and well drained. It is found on the summits of ridges. This soil is well suited to cultivated crops and for the use as farmland.
- **38A – Toccoa fine sandy loam**, 0 to 2 percent slopes, occasionally flooded. This soil is very deep, nearly level, and well drained. It is on narrow or wide flood plains along rivers and large creeks and is occasionally flooded for brief periods, usually during winter and early spring. Most areas containing this soil are cultivated, used as pasture, or are wooded.
- **41A – Wehadkee silt loam**, 0 to 2 percent slopes, frequently flooded. This soil is very deep, nearly level, and poorly drained. It is typically on low flood plains along rivers and large creeks and is frequently flooded for brief periods from late fall to spring. Most areas containing this soil are used as woodland and a few areas are used as pasture.

#### **E. Threatened and Endangered Species**

The threatened and endangered database maintained by Virginia Department of Game and inland Fisheries was searched. The results revealed that the Roanoke Logperch (*Percina rex*) is a Federal Endangered and State Endangered species that could be in the Banister River. It is unlikely that this species is in the river based on extensive research for Banister Bend Mitigation Bank owned by the Sponsor. Supercoil spirit (*paravitrea hera*) was also identified in the database but is unlikely to be on the banks of the river again based on extensive research by the Sponsor for Banister Bend Mitigation Bank.

The upland Sandpiper, loggerhead Shrike, Carolina Darter and migrant loggerhead Shrike are all state threatened species which can be researched during the design phase of the bank.

The proposed bank will improve water quality, stabilize stream and river banks and provide vegetative habitats for wildlife. These will be significant improvements for this property and for all of the wildlife in the watershed.

**F. Cultural Resources**

There are no known cultural resources located within the proposed bank limits. The property has been used for agricultural pasture and cultivation for many years. Any artifacts that may have been along the river bank have most likely been affected by prior cultivation and excavation work. The previous property owner has manipulated the river and stream bank contours with an excavator to allow access to water for his livestock. No further coordination is anticipated for historic resources.

**G. Scenic River Designation**

In 2012, the Virginia Department of Conservation and Recreation (DCR) studied the Banister River to determine if it met the qualifications for the scenic river designation. The initial evaluation was prepared for a 38 mile stretch of river from the Route 640 bridge in Pittsylvania County to the confluence of the Banister and the Dan River. This section was designated during the 2013 session of the General Assembly.

DCR is now studying the 25 mile portion of river between Route 29 near the Town of Chatham to the Route 640 bridge, which is just downstream of Banister Bend Mitigation Bank. Legislation will likely be introduced in the 2014 General Assembly session to increase the designation, which will include the portion of the banister that flows by the subject property.

The Pittsylvania and Halifax County Board of Supervisors have both supported this designation as well as Delegate James Edmunds and Senator Frank Ruff, who intend to introduce the legislation in 2014. More information is included in Appendix B.

**H. Existing Conditions**

The existing conditions of the property are poor. The Banister River has a heavy sediment load and the banks have been mechanically altered several places along the 6,196 LF of riverfront. The property has been heavily grazed by livestock and there are many bare spots with no understory vegetation where trees exist. The livestock have undoubtedly increased the sediment and nutrient load to the Banister River and the tributaries on the property.

The streams feeding the river have very few trees along their banks. Trees need to be added to improve water quality and stream function on the property and in the watershed. The streams have been mechanically straightened.

The current vegetation consists of many types of weeds and grasses. The trees are sparse except for a few groups of mature trees which are mostly along the river. The dominant tree species include sycamore, a variety of oaks and river birch.

**I. Hydraulic Conditions**

The Banister River has a large watershed and has a width of approximately 50 feet along the riverfront portion of the subject property. The average depth ranges from 6 inches to 15 inches on normal days. A significant portion of the property is in the 100 year flood plain as shown on Figure 1-6.

The streams begin offsite and flow to the Banister River. The drainage area map is included as Figure 1-8. The streams are also influenced by groundwater.

#### **J. Adjacent Property Conditions**

The adjacent properties are all in agricultural operations. The property to the east is forested with has planted pines. The properties to the west are in cultivation with tobacco. The property across the river is in a combination of forest and grassed fields. This entire area of Pittsylvania County is agricultural in nature and no residential or commercial development is anticipated.

The drainage areas for Stream B offsite properties are included as Figure 2-1. This map delineates the drainage patterns from the east which feed Stream B. This runoff is coming from the top of White Oak Mountain with a total drainage area of 445 acres.

The list of adjacent property owners is as follows:

<b>GPIN</b>	<b>Owner Name &amp; Address</b>
2457-62-4959	Southside Cattle Company, LLC 1040 Coles Road Chatham, VA 24531
2457-51-2572	Southside Cattle Company, LLC 1040 Coles Road Chatham, VA 24531
2456-29-6239	Jon A. Bell 884 Pleasant Gap Road Dry Fork, VA 24549
2456-37-0576	William H. Rogers 460 Carter Lodge Road Blairs, VA 24527
2456-38-8560	Mary M. Motley 1120 Washington Drive Chesapeake, VA 23320
2456-45-6098	Willie E. Redd, Jr. 1673 Chalk Level Road Chatham, VA 24531
2456-76-2843	William F. Brown 2620 E. Gretna Road Gretna, VA 24557
2456-87-5693	Joseph H. Wilburn 304 A Carol Drive Yorktown, VA 23692
2457-91-4030	John T. Ferrell 4071 S. Ivy Lane Englewood, CO 80111-1018

### **3. Goal**

The main goal of the bank is to provide stream credits for the watershed since upcoming projects will need a significant amount of credits. The Sponsors also have a love of the outdoors and want to improve the water quality and wildlife habitat in the region. This bank, along with the Banister Bend Mitigation Bank (downstream) which the Sponsor also owns, will work towards improving the watershed. They plan to continue to look for properties along this river to improve.

Preserving this property and providing a forested buffer will protect and enhance the river. Excluding livestock from the river will also improve water quality by reducing the nutrient load and sediment load in the river. The preservation easement that will be placed on the property will protect the property from silvicultural activities. This also furthers the goals of DCR's Scenic River designation.

The Sponsor would also like to use the property for recreation. They are avid hunters and fishermen. This property will provide a wonderful wildlife habitat for outdoor recreation. A small campsite will be selected along the Banister River in SAR 3 for family camping and fishing.

## 4. Measures to be Taken to Establish the Bank

### A. Mitigation Banking Instrument

A Mitigation Banking Instrument (MBI) will be developed by the Agent to establish the Bank. The MBI will include all required documents and information to outline the credit basis, credit release and monitoring requirements. Specifications for construction, operation and maintenance of the bank will also be included. The MBI will follow the most recent version of the MBI template available and will be in accordance with the “Compensatory Mitigation for Losses of Aquatic Resources: Final Rule, 33 CFR 332”.

### B. Permits

The Agent will apply for and obtain required County, State and Federal permits as needed to construct the Bank. The County has an Erosion and Sediment Control Permit requirement. The other permits will be within the MBI process.

The improvements done to the site will be designed in such a way to limit impact to the environment. Special care will be taken along the Banister River to try to prevent additional sediment loading.

The permanent easements which will be placed along the river and streams will be recorded at the Pittsylvania County courthouse.

### C. Ownership Arrangements

The Sponsor owns the property as Frog Bottom, LLC. A subdivision plat has been created by a surveyor and has been filed at the Pittsylvania County Courthouse. The Sponsor will own the property throughout the credit sale, monitoring period and as a long-term steward. The property will remain as one parcel consisting of 122.8 acres.

### D. Stream Mitigation Methods

Stream credits will be derived from common methods listed in the Unified Stream Methodology (USM) forms. Stream preservation, enhancement, restoration and livestock exclusion will be used to generate the credits. The USM Form 4 (Figure 4-2) is included in this section. Figure 4-1 shows the buffer preservation areas that are proposed at this time.

The following is a more detailed description of the methods to be used in each area:

#### 1. Stream and Riparian Buffer Preservation & Planting

The buffer area along the right side of the Banister River will be preserved and trees will be planted to enhance the riparian area of this system. The reach is 6,196 feet and the buffer area will be approximately 43 acres. The majority of the reach will have a 300 foot buffer. Buffer area will be slightly less where tributaries enter the river. Approximately 3,905 credits are anticipated by preserving and enhancing this reach.

The other streams on the property will also be preserved and enhanced. There is little value in moving the streams back to their original location and doing so could cause additional unnecessary sediment runoff to the Banister River.

Therefore, planting woody stems to create a forested buffer will be the enhancement along with preserving the entire buffer area.

The majority of the buffers for the tributaries will also be 300' in width. Approximately 4,752 credits are anticipated by preserving and enhancing reaches B and D.

## **2. Stream Enhancement**

There are 2 areas of the Banister River (Stream A) that need to be enhanced with biological bank work. One is a 400 foot stretch (SAR 2) which has been graded to allow livestock to easily enter the river. This section needs to be planted with live stakes and grasses to bank full depth. Woody stems also need to be added to create a forested system.

Stream A, SAR 6 along the Banister River also needs some biological bank work due to the livestock impact to the river banks there. This area is another common entry point for watering which needs to be restored.

There will be some work on Stream B, SAR 2 to replace the right bank for approximately 130 feet. The bank has been mechanically removed to create a watering hole for livestock. The bank will be repaired to keep the stream within 2 banks of similar size and width as the rest of the stream.

## **3. Livestock Exclusion**

The livestock has had a significant impact on this property. As mentioned above, the river banks need to be re-vegetated with grasses and trees. The natural understory vegetation has all been trampled or eaten by the cattle and horses. Credits for removing the livestock will total 3,287.

# FIGURE 4-2 USM Form 4 Compensation Summary Form (Form 4)

## Unified Stream Methodology for use in Virginia

Project #	Applicant	Date
Frog Bottom Mitigation Bank	Frog Bottom Mitigation Bank, LLC	9/12/2013
Evaluators	HUC	Locality
G.Clark	03010105	Pittsylvania Co.

Stream Name	Reach ID	Comp. Length (L <sub>c</sub> ) (feet)	Total Compensation Credit (Total CC) (From Form 3)
Banister River - SAR 1	A	1089	763
Banister River - SAR 2	A	404	311
Banister River - SAR 3	A	838	545
Banister River - SAR 4	A	2077	1417
Banister River - SAR 5	A	645	439
Banister River - SAR 6	A	894	430
Tributary - SAR 1	B	2096	2221
Tributary - SAR 2	B	962	1020
Tributary - SAR 3	B	529	360
Tributary - SAR 4	B	463	361
Tributary - SAR 5	B	692	574
Tributary - SAR 1	D	263	216
<b>Totals</b>		<b>10,952</b>	<b>8,657</b>

## 5. Geographic Service Area

The Geographic Service Area includes the following hydrologic unit codes, which can be seen in Figure 1-2:

<b>HUC</b>	<b>Description</b>	<b>Counties (portions of, see Figure 1-2)</b>
03010101	portion of upper Roanoke River	Bedford, Franklin, Pittsylvania, Campbell
03010102	middle Roanoke River	Campbell, Charlotte, Halifax, Mecklenburg, Appomattox
03010103	portion of upper Dan River	Henry, Pittsylvania, Danville, Martinsville, Franklin
03010104	lower Dan River	Danville, Pittsylvania, Halifax, Mecklenburg
03010105	Banister River	Pittsylvania, Halifax

The final GSA is subject to approval by the Corps and Interagency Review Team (IRT) members.

## **6. Establishment and Credits**

The credits will be established through the permitting process of the bank. Decisions about credits will be made based on federal guidance and USM Forms. The credits will be released pending the accomplishment of the success criteria as outlined in the MBI.

Use of the proposed Bank for credits outside the service area will be considered by the IRT on a case-by-case-basis and the decision will be made by DEQ and/or ACOE.

## **7. Long Term Monitoring and Maintenance**

The property will be owned and maintained by Frog Bottom, LLC during development, credit sales, and long term ownership. Frog Bottom, LLC intends to be the Long Term Steward of the property. They will maintain the fences to restrict livestock from other properties from entering the conservation area.

The property will be placed in a conservation easement to protect the trees that will be planted in perpetuity. Restrictive covenants will be filed at the Pittsylvania Courthouse detailing the restrictions permanently placed on the property prior to the sale of credits.

Following the planting of new tree species, the sponsor will implement a monitoring program to ensure that the success criteria have been met. This program, along with financial assurances, will be detailed in the Banking Instrument. Details regarding long-term performance criteria, monitoring, and operational life of the bank will also be detailed in the Banking Instrument.