



Prospectus – Amendment for Bank Expansion
Roanoke River Wetlands and Stream Mitigation Bank
Franklin County, Virginia
Henry County, Virginia

Prepared for:

Roanoke River Wetlands and Stream Mitigation Bank, LLC
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Prepared by:

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March 2013

I. INTRODUCTION

A. Summary

Roanoke River Wetlands and Stream Mitigation Bank, LLC, (hereinafter, the “Sponsor”) hereby proposes to amend the current Roanoke River Wetlands and Stream Mitigation Bank (hereinafter, the “Bank”) Mitigation Banking Instrument (MBI) by adding land and stream mitigation activities (hereinafter, the “Site”) to the current Bank located in Franklin County and Henry County, Virginia. This proposal calls for the addition of 246+/- acres to the Bank situated along an unnamed tributary of Reed Creek immediately East of the current Bank location, within the Upper Dan watershed and the Roanoke River drainage basin.

The addition of this Site will improve the Bank’s capability to fulfill its purpose of providing compensatory stream mitigation credits to offset the unavoidable loss of streams as a result of aquatic impacts from development projects. Such impacts are authorized under Section 401 and 404 of the Clean Water Act, Section 10 of the Rivers and Harbor Act and Section 62.1-44.15:20 of the Code of Virginia provided they have met all applicable requirements and are approved by the respective permitting agencies. The stream mitigation activities onsite will be accomplished by restoring and enhancing degraded stream channels to higher value natural aquatic resource areas, and preserving high quality stream resources and adjacent high quality mature forested riparian buffers.

B. Sponsor and Agent Qualifications

The Sponsor currently sponsors and operates the Roanoke River Wetlands and Stream Mitigation Bank within Virginia. The Sponsor owners also own a portion of and manage the York River Mitigation Bank, and have extensive experience in the design, operation, and maintenance of multiple mitigation banks throughout Virginia. Williamsburg Environmental Group, Inc. (hereinafter, the Agent), has extensive experience in all stages of the mitigation banking process, from initial site assessment through design and construction oversight, with approximately twenty-seven (27) approved or pending mitigation bank sites in Virginia.

C. Contact Information

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(540) 320-3429

Agent: Williamsburg Environmental Group, Inc.
c/o Mr. Michael Keeler
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Richmond, VA 23225
(804) 267-3474
mkeeler@wegnet.com

II. BANK SITE DESCRIPTION

A. Location and Current Use

The proposed Site will consist of two properties located in Franklin and Henry Counties, Virginia (Figure 1: Vicinity Map). The total area of the expansion Site is approximately 246 acres within the approximate 398 acre properties. The Site is bounded by State Route 657 (Old Quarry Road) to the south, and encompasses several unnamed tributaries to Reed Creek (Figure 2: Location Map). The Site is located immediately to the East of the approved Bank property.

The proposed site contains approximately 20,950 linear feet of non-tidal stream channel (Mitigation Feasibility Map, Appendix A). Several unnamed tributaries to Reed Creek generally flow north to south prior to reaching the main stem of Reed Creek downstream of the property limits and offsite. The Site consists of mature bottomland and riparian hardwood forests; late-succession regenerative growth; forested and emergent wetlands; and few areas of pine stands in the uplands. The southern and eastern portion of the Site was harvested for timber eight to ten (8-10) years ago, while the northern and western portion of the Site has not been harvested for several decades. A series of historical aerial photographs dating from 1948 show the land use pattern of the Bank and Site over time and are included in the Historic Images Map located in Appendix B. The elevation within the Site ranges from 1,480 feet in the uplands in the central portion of the site to approximately 1,100 feet along the stream as it exits the southern portion of the site.

B. Zoning / Easements

The Site is currently zoned Agricultural Forestry/Rural Residential. The properties are transected by one (1) overhead power transmission line and one (1) pipeline easement. The Site also contains easement road access for a local radio tower. The location and approximate limits of these easements is depicted on the Mitigation Feasibility Map (Appendix A). These easements should have no adverse effect on the viability or success of the mitigation performed at the Site. The area of the easements has been excluded from the calculation of stream credits.

The lands adjacent to the Site are currently zoned Agricultural Forestry/Rural Residential. The Comprehensive Plans for Henry and Franklin Counties do not indicate any planned uses for the Site that could adversely affect it or the Bank. Several maps from the Franklin County Comprehensive Plan are included in Appendix C.

The amendment Site is not currently included under any conservation easements. The approved Bank is protected under a Virginia Outdoors Foundation (VOF) easement that limits future development, and the landowner plans to place a VOF easement on the new Site as well. The easement on the approved Bank allows agricultural and forestry practices, as well as the following activities relating to mitigation: 1) wetland and stream

bank restoration, or erosion control, pursuant to a governmental permit, 2) fencing along or within the buffer area, 3) construction and maintenance of stream crossings that do not obstruct water flow, and 4) creation and maintenance of foot or horse trails with unimproved surfaces.

C. Soil Data

The Site is located within the Piedmont Physiographic Region. The soils of this region are derived from residuum weathered from mica schist, mica gneiss, metagrawacke, and high grade metamorphic parent material. The soils along the flood plain of the streams that transect the property are derived from alluvium deposited from the erosion of the soils weathered from these parent materials. According to the Natural Resources Conservation Service (NRCS) *Soil Survey for Franklin County, Virginia* and the *Soil Survey for Henry County, Virginia*, the Site is situated on six soil series: Clifford fine sandy loam, Colescreek-Delanco complex, Hickory Knob-Rhodhiss-Stott Knob complex, Woolvine-Fairview-Westfield complex, and Woolvine-Clifford complex. None of the above soil series are classified by the NRCS as hydric.

D. Threatened and Endangered Species

A search of the Virginia Department of Game and Inland Fisheries (VDGIF) Virginia Fish and Wildlife Information Service (VaFWIS) database was conducted on March 6, 2013 to determine potential threatened and endangered species and habitat located within a two-mile search radius of the Site.

The VDGIF search revealed no known threatened or endangered species within the search area. No threatened and endangered waters, cold water streams, anadromous fish reaches or other items of significance were identified on the proposed Site.

The FWIS database search also lists Wildlife Action Plan (WAP) Tier I, II, and III species predicted habitat that is located within the two-mile radius search. Spotted-margin Madtom (*Noturus insignis*), Roanoke bass (*Ambloplites cavifrons*), and Roanoke logperch (*Percina rex*) were listed for their known association with Reed Creek. Spotted-margin Madtom and Roanoke bass are Tier II species, species with a very high conservation need. Roanoke logperch is a Tier I species, characterized by critical conservation need, and also a federal and state endangered species. Predicted habitat for all these species is located ¼-mile to 1-mile from the Site. Specifically, the Roanoke logperch is found throughout the Smith River. Most of the larger tributaries to the Smith River, including the lower reaches of Reed Creek, are considered potential habitat for this species.

The U.S. FWIS IPaC system generated a list of federally endangered species that may be affected by the proposed project. The species listed include the James spiny mussel (*Pleurobema collina*), Mitchell's Satyr Butterfly (*Neonympha mitchellii mitchellii*), Roanoke logperch (*Percina rex*), and Smooth coneflower (*Echinacea laevigata*). As part of the IPaC review, a search of the Center for Conservation Biology (CCB) Bald Eagle Nest Locator was also conducted. No identified nests or associated management zones were located within the Site, according to the CCB Bald Eagle Nest Locator.

In addition to the online database search, a project review request was submitted to the Virginia Department of Conservation and Recreation (DCR) Division of Natural Heritage (DNH) on March 5, 2013. The results of DCR's project review are expected within 30 days.

E. Cultural Resources

The Virginia Department of Historic Resources (VDHR) maintains an extensive archive of architectural and archaeological resources that have been identified within the state through surveys and excavations conducted by private organizations, not-for-profit organizations, and other state agencies. The initial review of the database on the approved Bank limits revealed three (3) cultural resource sites in and within the vicinity of the project limits. *A Phase I Cultural Resources Survey of Approximately 153 Acres Associated With Impact Areas For The Proposed Roanoke River Mitigation Bank, Franklin and Henry Counties, Virginia* was conducted per DHR request. Although additional sites were identified during this survey, it was concluded that no historic properties will be affected by the mitigation activities at the Bank. This conclusion was supported by DHR in a letter issued on September 1, 2010.

One additional cultural resource location was noted in the vicinity of the proposed Site (Appendix D). This location, 44HR0114, is a terrestrial open air archaeological site that was identified during a survey associated with the power line easement. Department of Historic Resources staff determined the archeological site "not eligible" for listing in the National Register of Historic Properties in 2002. Furthermore, the proposed mitigation within the Bank and Site are not anticipated to affect the archeological site.

F. Existing Stream Conditions

No streams on the Site are listed as impaired according to the Virginia Department of Environmental Quality (VDEQ) Impaired Waters List (*Draft 303(d) Water Quality Assessment Integrated Report, 2012*). The main stem of Reed Creek, from its confluence with Smith River upstream approximately four (4) miles, has been identified as an impaired stream. The reach failed to meet standards for *Escherichia coli* (*E. coli*) and the VDEQ has identified potential pollution sources as municipal (urbanized high density area), residential districts, non-point sources, and wildlife other than waterfowl. The Bank and Site are located approximately four (4) miles upstream of the impaired area of Reed Creek. The Impaired Waters listing and a map showing its location is included in Appendix E. Though the proposed Site is upstream of the impaired waters, it is expected that the Site mitigation activities will further advance the goals of the current Bank, by decreasing sediment runoff and maintaining water quality through protection of mature wetland and riparian buffers.

Stream quality within the Site varies. The majority of the site contains mature forested riparian buffer and stable streams. The site also contains streams with banks that are eroded and the stream bed exhibits active headcutting or other bed instability. As a result, sediment has deposited in the streams and portions of the stream demonstrate an unstable profile or diminished aquatic habitat.

A preliminary stream assessment was conducted in January 2013, utilizing the US Army Corps of Engineers (Corps) and Virginia Department of Environmental Quality (VDEQ)

Unified Stream Methodology (USM). A USM Form 4 mitigation compensation summary is provided in Appendix F.

Drainage areas for onsite stream resources are listed below:

Reach	DA (Acres)	DA (Square Miles)	Headwater stream
R1	16.58	0.03	Yes
R2	5.10	0.01	Yes
R3	462.16	0.72	
R4	7.30	0.01	Yes
R5	13.42	0.02	Yes
R6	7.61	0.01	Yes
R7	19.51	0.03	Yes
R8	7.78	0.01	Yes
R9	8.84	0.01	Yes
R10	51.38	0.08	
R11	6.19	0.01	Yes
R12	16.03	0.03	Yes
R13	17.76	0.03	Yes
R14	52.59	0.08	Yes
R15	76.97	0.12	Yes
R16	9.73	0.02	Yes

G. Virginia Off-Site Mitigation Location Guidelines

The location and landscape of the Site meets several of the suggested criteria for locating mitigation areas. The following briefly explains how these criteria are being met:

- The Site contains stream restoration and enhancement opportunities in conjunction with preservation of high quality streams and riparian buffers. Restoring and stabilizing the degraded stream channels will improve the overall quality of the stream resources onsite and within the watershed.
- The Site is contiguous with Reed Creek which eventually flows into the Smith River. Restoring, enhancing and preserving these streams will improve the chemical, biological, and physical integrity of Reed Creek (303(d) listed stream) and Smith River (Roanoke Logperch confirmed) by eliminating a significant amount of sediment inputs from upstream.
- The Site will preserve and restore headwater streams that flow to Reed Creek which contains potential habitat for the several Tier I and II species, as well as the state and federally listed endangered species, Roanoke Logperch.
- The Site is not located in an area with future foreseeable activities that would cause adverse effects to it. The surrounding area is zoned Agricultural Forestry/Rural Residential and the Henry and Franklin Counties Comprehensive Plans have not identified the area for intense development.
- 300 foot buffers will be preserved on each side of the stream where appropriate.
- A majority of the streams originate on the Site and several have their entire watershed on the Site and/or the approved Bank property with a VOF easement.
- The Site is immediately adjacent to the existing Bank, and will significantly increase the size of the Bank and the linear footage of stream protected.

III. GOAL AND NEED

The goal of the amendment to the Bank is to add this Site and the proposed stream mitigation to the existing Roanoke River Wetlands and Stream Mitigation Bank. This will increase the size of and add ecological value to the Bank, enabling it to more efficiently replace the functional values of streams anticipated to be adversely affected within the authorized geographic service area.

The specific need for preserving this Site as part of the Mitigation Bank is to prevent future disturbance of the Site through silvicultural or agricultural activities. Protecting the headwater systems onsite will help improve downstream water quality for threatened and endangered species known to occur within the watershed.

The general need for the Bank comes from the demand for stream compensation within the proposed Geographic Service Area. There are a limited number of stream mitigation banks that serve this area, and this will provide an additional alternative.

IV. MEASURES TO BE TAKEN TO ESTABLISH BANK

A. Mitigation Banking Instrument (MBI)

The current MBI will be amended by the Sponsor and Agent to include the Site and stream mitigation credits. The MBI and 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 follow the existing version of the Mitigation Banking Template provided by the Norfolk District, Army Corps of Engineers.

B. Permits

Development of the 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 channel or wetlands may be required for the implementation of natural stream channel design. The Sponsor will obtain all documentation, permits, and other authorizations required to implement the final design and maintain the Site, as part of the Roanoke River Wetlands and Stream Mitigation Bank.

C. Ownership Arrangements

The Sponsor is establishing a landowner agreement with the owner of the Site, which will allow the Sponsor to perform mitigation activities within the areas 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 property.

D. Mitigation Methods

Stream mitigation credits will be calculated using the most current version of the Unified Stream Methodology (USM). USM Form 4 is provided in Appendix F. In accordance

with the USM method, the total number of stream credits will be derived by a combination of stream preservation, enhancement, and restoration activities. Degraded channels will be restored to an appropriate dimension, pattern, and profile based upon natural stream channel design principles. All remaining jurisdictional waters and riparian buffers will be preserved in perpetuity. The proposed stream preservation, enhancement, and restoration activities are shown on the Mitigation Feasibility Map provided in Appendix A. A Bank Summary Map showing the total proposed credits for the amended Bank is also located in Appendix A.

- **Stream Preservation** – Preservation of existing stable stream channels will include approximately 19,526 linear feet along portions of all stream reaches within the Addendum.
- **Stream Enhancement** – Enhancement of existing stream channels will include approximately 205 linear feet along stream reaches R14 and R15, which may provide approximately 70 compensation credits. In-stream structures, that provide grade control and aquatic habitat, are proposed to enhance the overall stream channel condition and stabilize channel banks. Lying back of banks and creating bankfull benches are proposed to provide access to floodplains and lower shear stress on the banks. Stream bank plantings are proposed to improve the overall health of the stream by providing local bank stabilization and enhancing habitat for terrestrial and aquatic wildlife.
- **Stream Restoration** – Restoration will include approximately 1,219 linear feet along stream reaches R3, R13, R14, R15, and R16, which may provide approximately 1,219 compensation credits. The restoration of dimension, pattern, and profile of these stream reaches is proposed to improve the overall channel condition, stabilize channel banks, re-establish hydraulic connectivity to flood prone areas, and improve local instream aquatic habitat.
- **Adjustment Factors** – Adjustment factors are proposed to provide approximately 1,698 compensation credits. Streams R1-2, R6-8, and R12-R16 will receive watershed preservation credit along their entire length.

B. Riparian Buffer Activities

- **Riparian Buffer Preservation** – Preservation of existing riparian buffer will include 224.99 acres and may provide approximately 4,917 credits.

V. GEOGRAPHIC SERVICE AREA

The proposed geographic service area for the Site will be the same as the current Bank, and shall be consistent with Section 62.1-44.15:23 of the Code of Virginia, and in accordance with the Federal Mitigation Banking Guidance.

The proposed Geographic Service Area is shown in Appendix G, and includes Hydrologic Units 03010101 (except Montgomery, Roanoke, and Botetourt Counties), 03010103, 03010104, and 03010105 within the State of Virginia. This area includes all or portions of Bedford, Campbell, Floyd, Franklin, Halifax, Henry, Mecklenburg,

Patrick, and Pittsylvania Counties and the Cities of Bedford, Danville, and Martinsville (Appendix G).

VI. ESTABLISHMENT AND USE OF CREDITS

A. Decisions concerning project applicability, relationship to mitigation requirements, use of a mitigation bank vs. onsite mitigation, in-kind vs. out-of-kind mitigation, and compensation ratio determinations will be made as part of permit decisions.

B. Decisions concerning credit withdrawal from the Bank will be made in accordance with the Mitigation Regulations. In addition, the following general guidelines apply to the Bank. Availability of credit will be based on the level of achievement of those Goals and Objectives contained in the MBI and the Amendment approved by the IRT.

1. Stream credits will be based upon calculations using the USM, and will be released pending the accomplishment of the success criteria as outlined in the MBI.

2. Debits of available credit from the Bank will be based on the permit requirements of projects duly authorized. The permit requirement will normally reflect consideration of the value of the streams impacted along with the value of the compensation streams in the Bank. Compensation requirements consistent with those used by the permitting agencies will be applied at the time of application.

3. Limited use of the Bank for projects outside the service area will be considered by the IRT on a case-by-case basis.

C. The Bank Sponsor will establish and maintain an accounting system (i.e., ledger) which documents credits and debits to the Bank account. Each time an approved debit/credit transaction occurs, the Bank Sponsor will submit a statement to the permitting agencies. The Bank will also generate an annual ledger report to be submitted to all members of the IRT. The ledger will be available for inspection upon request by any participating agency.

VII. LONG-TERM MONITORING AND MAINTENANCE

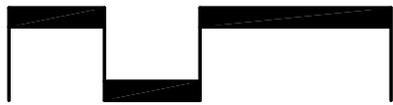
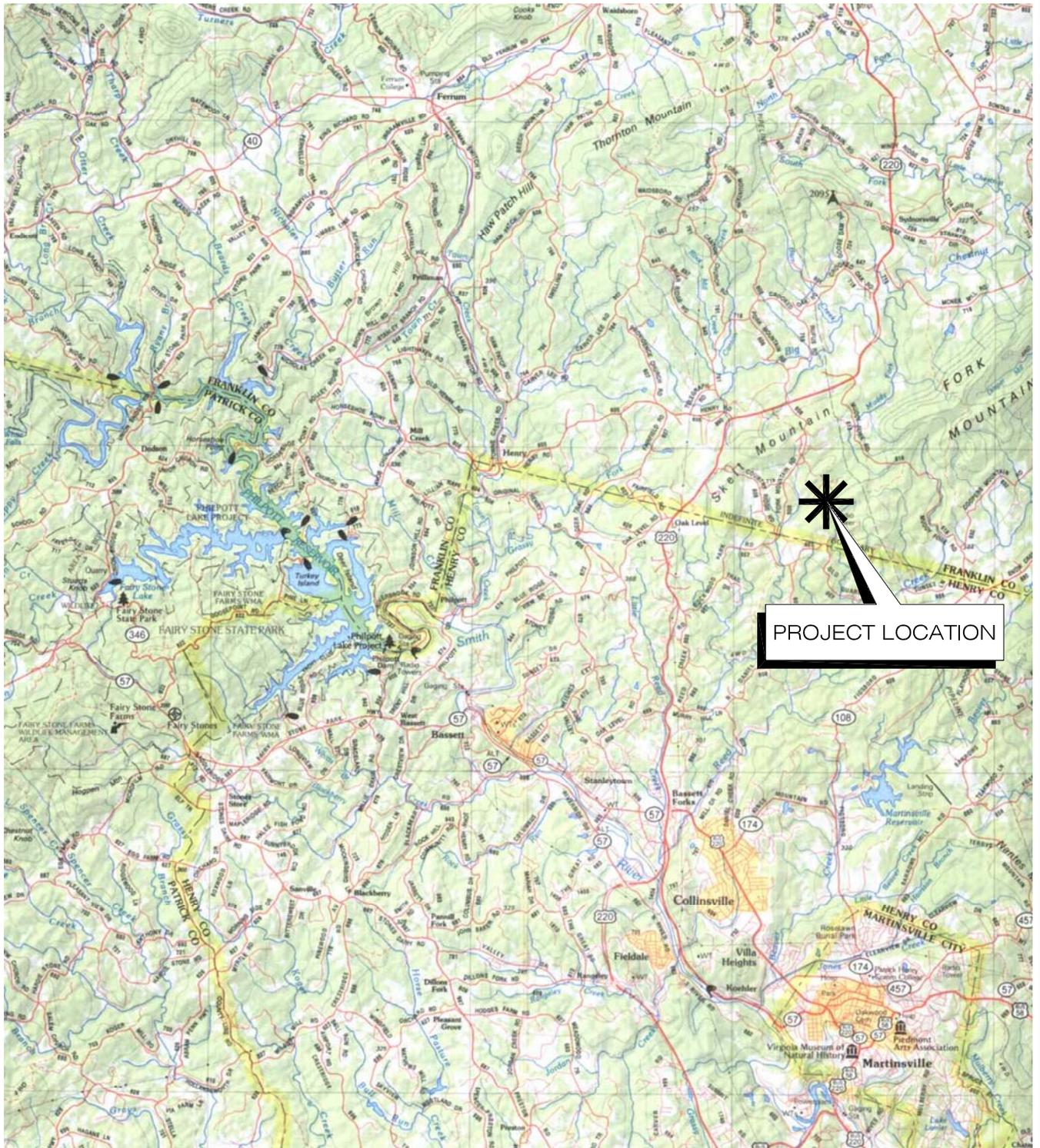
Decisions concerning the operational life of the Bank, long-term monitoring/management, remedial actions, and financial assurances will be made in accordance with Federal Mitigation Banking Guidance and approval by the IRT.

Streams and buffer areas which are part of the Bank, and which are ultimately used as compensation, will provide long-term protection in the form of a restrictive covenant, or other equivalent instrument, that is agreeable to the IRT. An alternative is to have a non-profit land conservancy organization hold a conservation easement on the Bank. The legal easement 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 may offer all interest in the Bank to the current owners of the site(s) or their heirs. The Sponsor may also transfer interest to a public resource agency, a non-profit organization engaged in conservation activities, or an academic institution engaged in research activities subject to written approval of the receiving entity by the IRT.

VIII. ANTICIPATED SCHEDULE FOR COMPLETION

The Sponsor plans to move forward with adding the Site to the Bank upon approval by the IRT. All necessary signatures are anticipated to be obtained in Summer 2013.



2.4 MILES 1.2 0 MILES 2.4 MILES
 SCALE: 1 INCH = 2.4 MILES



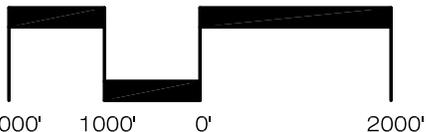
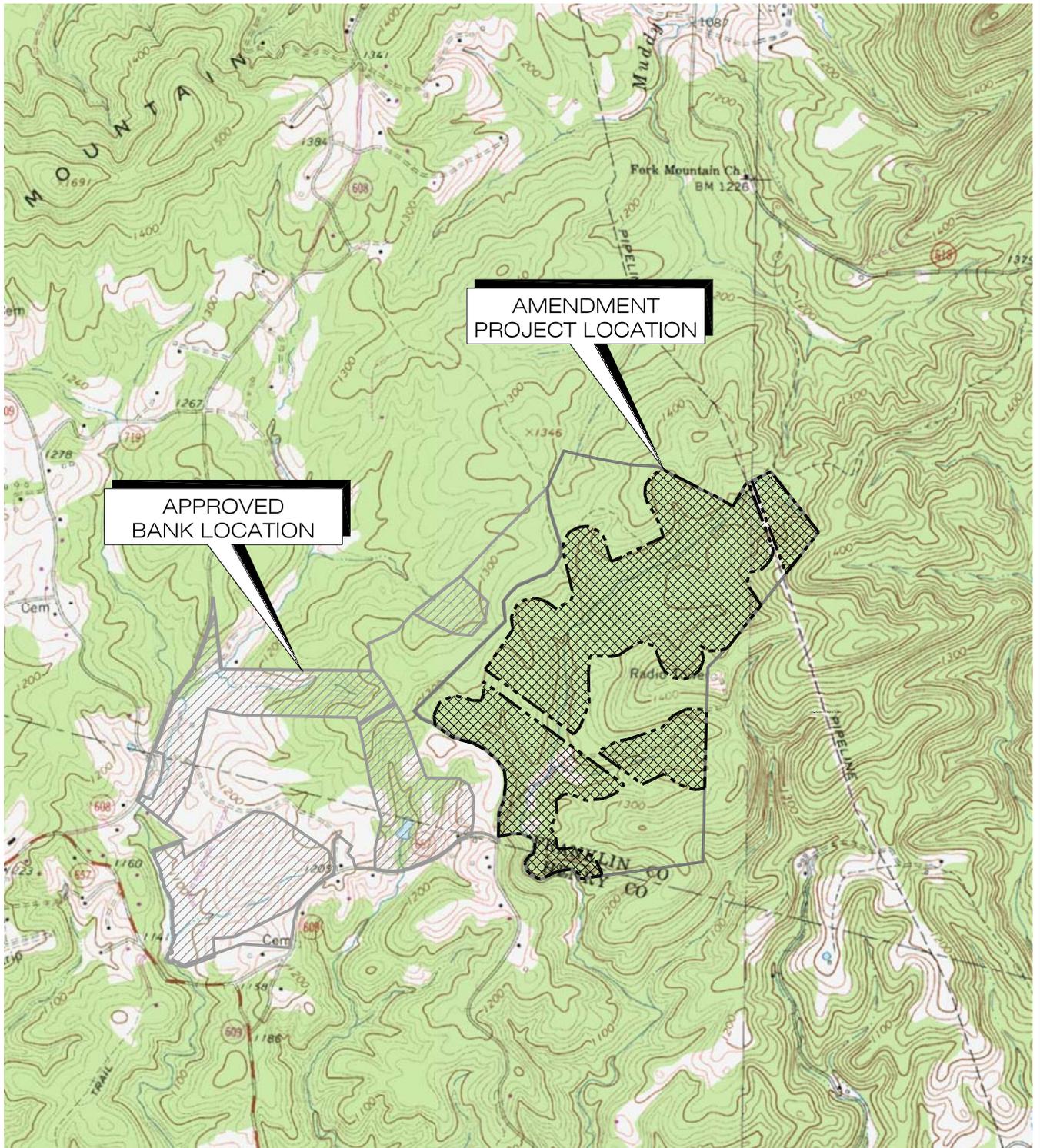
WILLIAMSBURG
 ENVIRONMENTAL
 GROUP, INC.

FIGURE 1
 PROJECT VICINITY MAP
 ROANOKE RIVER WETLANDS AND STREAM
 MITIGATION BANK - AMENDMENT

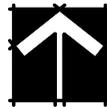
FRANKLIN CO., VA
 AND HENRY CO., VA

MARCH 2013

SOURCE: VIRGINIA ATLAS AND GAZETTEER,
 DeLORME MAPPING CO., 2005.



SCALE: 1 INCH = 2000 FEET



LATITUDE: 36° 48' 37.9"
 LONGITUDE: 79° 53' 41.5"

SOURCE: USGS 7.5 MINUTE SERIES TOPOGRAPHIC MAP,
 BASSETT, VA AND SNOW CREEK, VA QUADRANGLES,
 1965 (REVISED 1978).



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 ENVIRONMENTAL
 GROUP, INC.

FIGURE 2
 PROJECT LOCATION MAP
 ROANOKE RIVER WETLANDS AND STREAM
 MITIGATION BANK - AMENDMENT

FRANKLIN CO., VA
 AND HENRY CO., VA

MARCH 2013

APPENDIX A
MITIGATION FEASIBILITY MAP

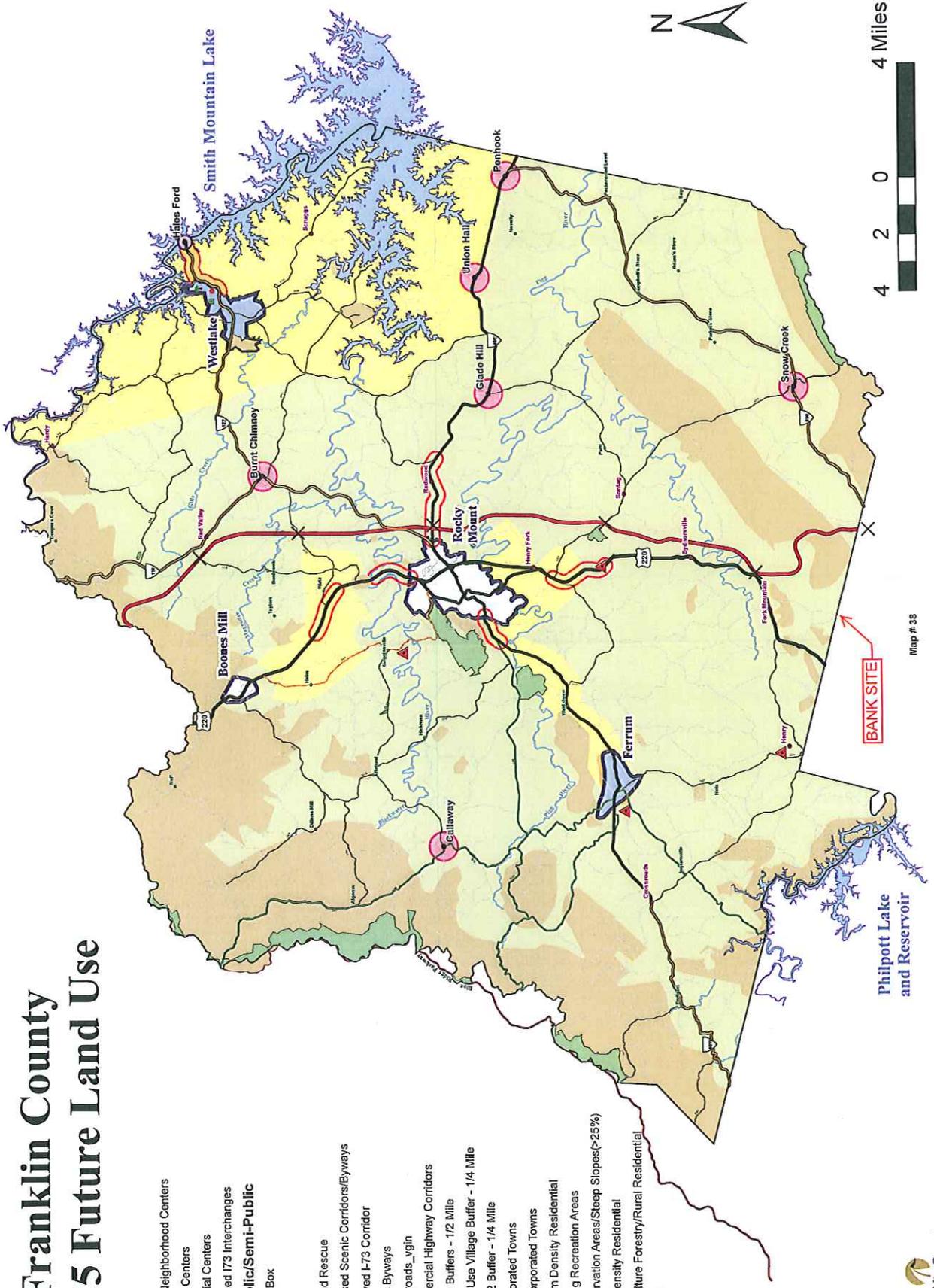
APPENDIX B
HISTORIC AERIALS

APPENDIX C
FRANKLIN COUNTY COMPREHENSIVE PLAN MAPS

Franklin County 2025 Future Land Use

Legend

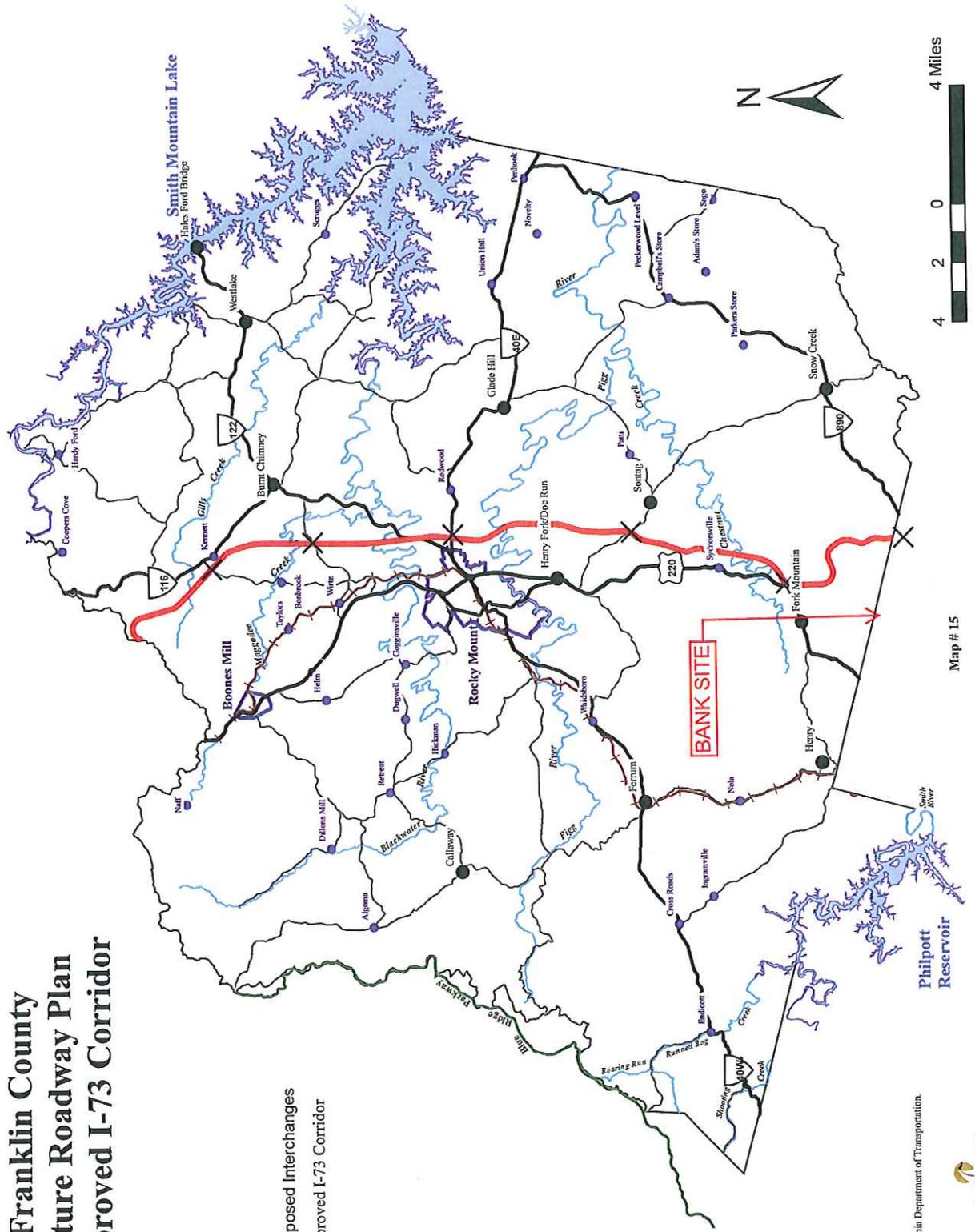
- Rural Neighborhood Centers
- Village Centers
- ▲ Industrial Centers
- ✕ Proposed I73 Interchanges
- Future Public/Semi-Public
- Green Box
- ↑ Park
- Fire and Rescue
- Proposed Scenic Corridors/Byways
- Approved I-73 Corridor
- Scenic Byways
- state_roads_vgin
- Commercial Highway Corridors
- Village Buffers - 1/2 Mile
- Mixed Use Village Buffer - 1/4 Mile
- Rt. 122 Buffer - 1/4 Mile
- Incorporated Towns
- Unincorporated Towns
- Medium Density Residential
- Existing Recreation Areas
- Conservation Areas/Steep Slopes (>25%)
- Low Density Residential
- Agriculture Forestry/Rural Residential
- Lakes



Franklin County Future Roadway Plan Approved I-73 Corridor

Legend

- X Proposed Interchanges
- Approved I-73 Corridor



Source: The Virginia Department of Transportation.



Map # 15

APPENDIX E
VDEQ IMPAIRED WATERS INFORMATION



2012 Impaired Waters

Category 4 & 5 by Basin and Stream Name*

Roanoke and Yadkin River Basins

Cause Group Code: L53R-04-BAC - Reed Creek

Location:	Reed Creek mainstem from its mouth on the Smith River upstream approximately one mile above the Rt. 609 crossing.
City/County	Henry Co.
Use(s):	Recreation
Cause(s) / VA Category:	Escherichia coli / 4A

This 2008 303(d) Listed water extends 3.95 miles resulting in non-support for the Recreational Use. The Dan River Bacteria Total Maximum Daily Load (TMDL) is U.S. EPA approved on 12/08/2008 [Fed ID 35757] and SWCB approved 4/28/2009. The Dan River Bacteria TMDL incorporates Reed Creek as it lies within the TMDL Watershed. The TMDL and allocations can be viewed at <http://www.deq.virginia.gov>.

4AREE000.80 (Rt. 993 Bridge upstream of Rt. 57 Bridge) Four Escherichia coli (E.coli) samples of 21 exceed the 235 cfu/100 ml instantaneous criterion in both the 2008 and 2010 assessments. Exceeding values range from 300 to greater than 2000 cfu/100 ml.

Reed Creek

Recreation

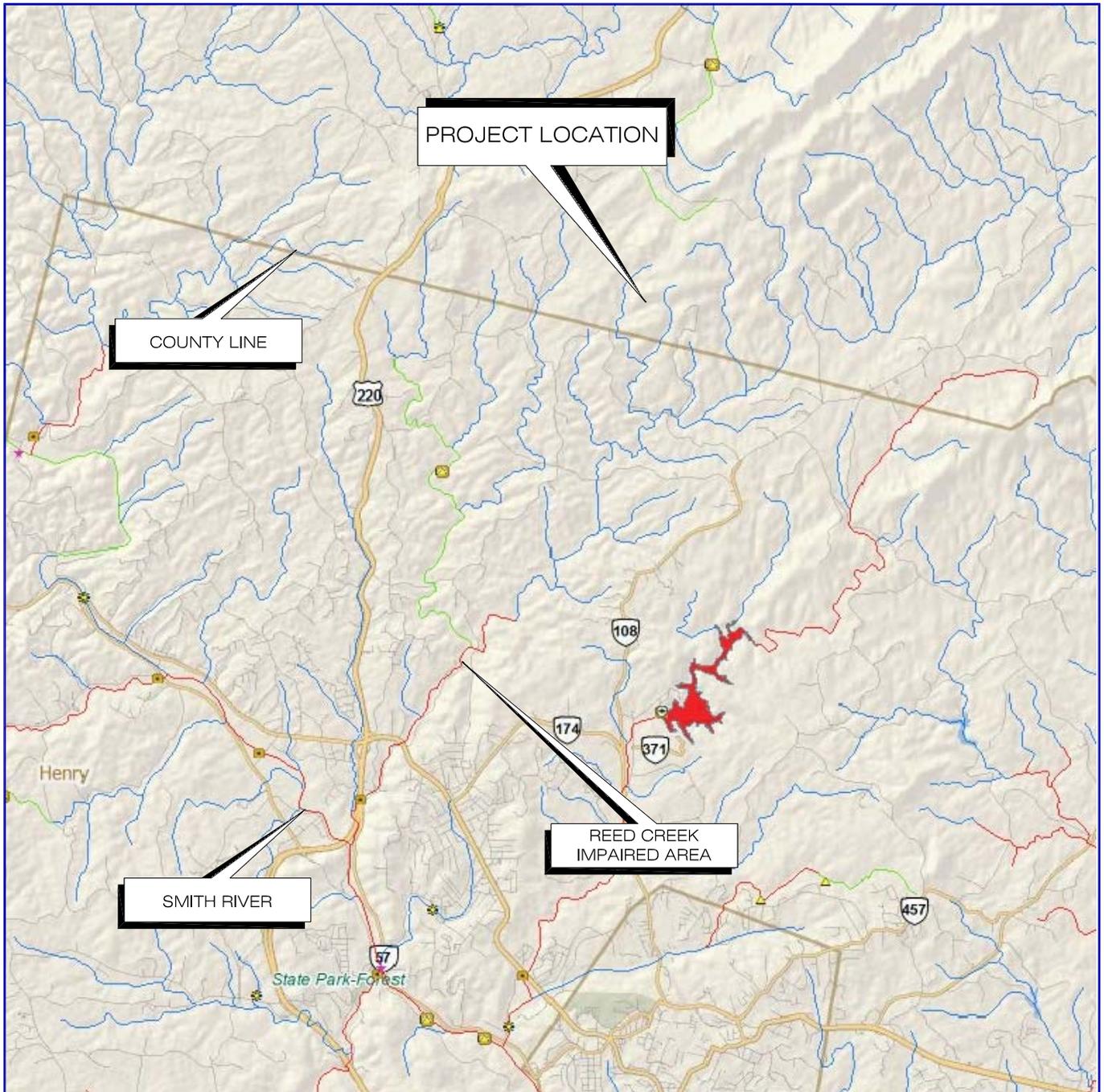
Estuary	Reservoir	River
(sq. miles)	(acres)	(miles)
		3.95

Escherichia coli / 4A
Total impaired size by water type:

Sources:

- Municipal (Urbanized High Density Area)
- Residential Districts
- Unspecified Domestic Waste
- Wet Weather Discharges (Non-Point Source)
- Wildlife Other than Waterfowl

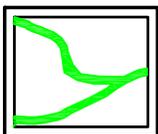
* Narrative descriptions, location and city/county describe the entire extent of the impairment. Sizes may not represent the total size of the impairment.



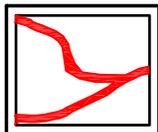
SCALE: NO SCALE



LEGEND:



NON-IMPAIRED
WATERS



IMPAIRED WATERS



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GROUP, INC.**

**APPENDIX D
303(D) IMPAIRED WATERS MAP
ROANOKE RIVER WETLANDS &
STREAM MITIGATION BANK - AMENDMENT**

FRANKLIN & HENRY
COUNTIES, VIRGINIA

MARCH 2013

APPENDIX F
USM COMPENSATORY SUMMARY FORM

Compensation Summary Form (Form 4)

Unified Stream Methodology for use in Virginia

Project #	Applicant	Date
4189	Roanoke River Wetlands & Stream MB - Amendment	3/27/2013
Evaluators		HUC
SW, GH		3010103
		Locality
		Franklin

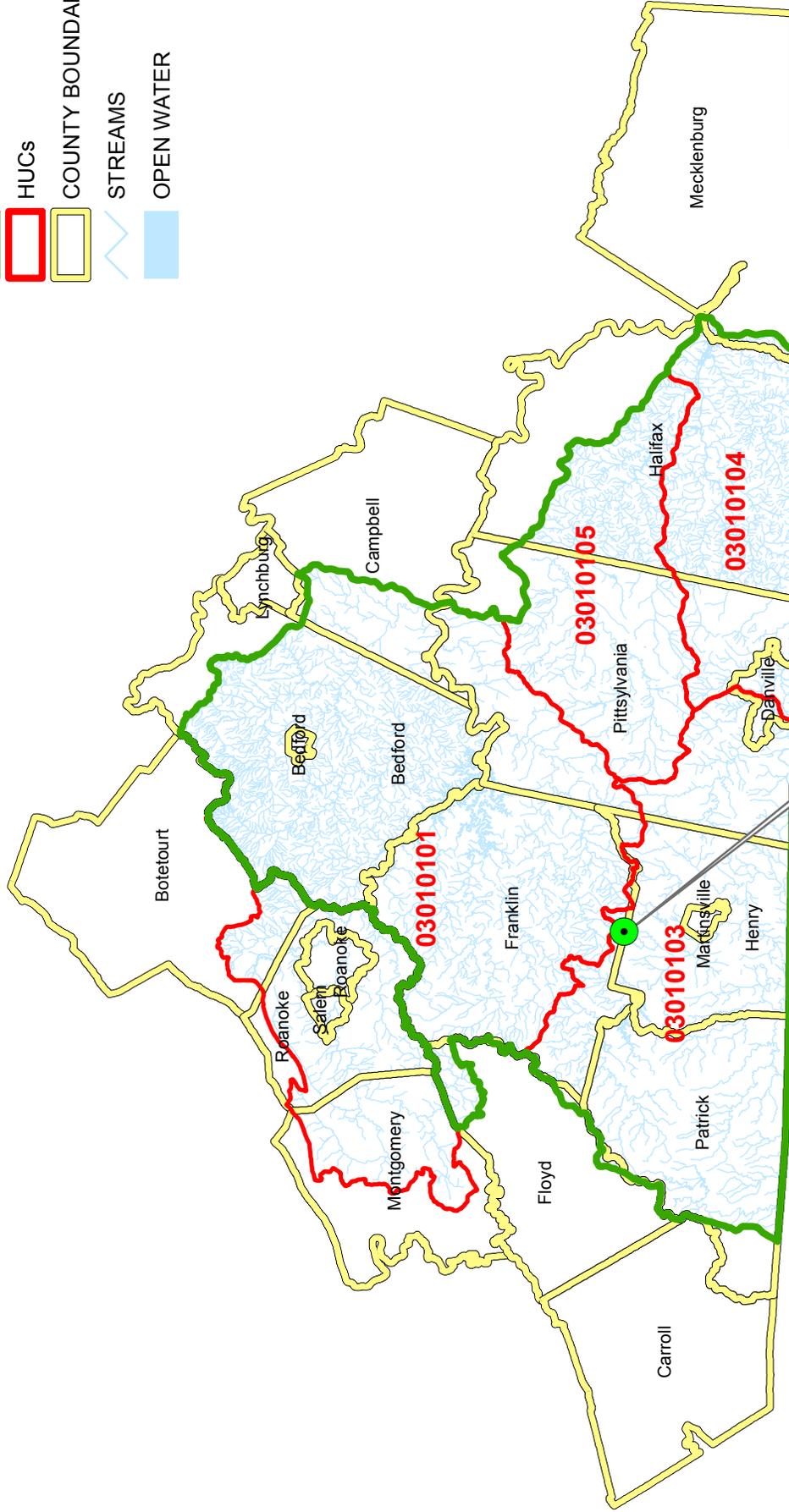
Stream Name	Reach ID	Comp. Length (L _c) (feet)	Total Compensation Credit (Total CC) (From Form 3)
Tributary to Reed Creek	R1	840	327
Tributary to Reed Creek	R2	386	243
Tributary to Reed Creek	R3	8,869	2,419
Tributary to Reed Creek	R4	41	0
Tributary to Reed Creek	R5	885	239
Tributary to Reed Creek	R6	145	93
Tributary to Reed Creek	R7	911	528
Tributary to Reed Creek	R8	419	260
Tributary to Reed Creek	R9	426	86
Tributary to Reed Creek	R10	2,304	553
Tributary to Reed Creek	R11	246	71
Tributary to Reed Creek	R12	843	447
Tributary to Reed Creek	R13	642	372
Tributary to Reed Creek	R14	1,612	1,310
Tributary to Reed Creek	R15	1,903	797
Tributary to Reed Creek	R16	478	159
Totals		20,950	7,904

Note: Round all feet & CC's to the nearest whole number.

APPENDIX G
GEOGRAPHIC SERVICE AREA MAP

LEGEND

-  SERVICE AREA
-  HUCs
-  COUNTY BOUNDARIES
-  STREAMS
-  OPEN WATER



PROJECT LOCATION



SOURCE: VDOT COUNTY MAP SERIES, 2001
HUC, U.S.EPA

SCALE: 1 INCH = 18 MILES



APPENDIX G
SERVICE AREA MAP
ROANOKE RIVER WETLANDS
AND STREAM MITIGATION BANK

FRANKLIN AND HENRY COUNTIES, VA MARCH 2013