

PROSPECTUS

RAVENS CROFT STREAM MITIGATION BANK Henry County, Virginia

ROANOKE RIVER BASIN
HUC 03010103

July, 2013



Prepared for:
The Mitigation Banking Review Team

Prepared, Managed, and Sponsored by:



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1.0 Introduction

1.1 Summary

The Bank Sponsor, Wildlands Engineering, Inc. (Wildlands), proposes to establish the Ravenscroft Stream Mitigation Bank (RSMB) to provide compensatory stream mitigation credits to offset unavoidable impacts to jurisdictional streams 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. Wildlands proposes to develop the RSMB in Henry County, VA, at a site located 9.1 miles northeast of Martinsville (Figure 1 – Vicinity Map). The proposed RSMB site proposes restoration, enhancement, and preservation along portions of East Fork Leatherwood Creek, West Fork Leatherwood Creek, and their headwater tributaries. The RSMB site is located in the Roanoke River Basin along the southern slopes of Turkeycock Mountain.

The bank will consist of preservation of 4,941 linear feet (LF) of perennial streams, enhancement of 662 LF of perennial streams, and restoration of 8,347 LF of perennial streams. The total length of existing streams included in the project is 13,950. The restoration of 8,346 LF of perennial streams is anticipated to result in 9,183 LF of restored perennial stream due to an anticipated sinuosity of 1.1. The total credits proposed for the RSMB is 15,559 stream mitigation units (SMU) resulting from the stream preservation, enhancement, and restoration; buffer preservation and heavy buffer planting; and livestock exclusion. 681 SMU's (4.4% of total credits) are generated from preservation and 14,878 SMU's (95.6% of total credits) are generated from restoration and enhancement.

The RSMB property is one of the only agricultural parcels located along Turkeycock Mountain and as such presents an excellent opportunity to improve water quality and wildlife connectivity. The ecological importance of Turkeycock Mountain is recognized in The Nature Conservancy's Watershed Approach to Compensation Planning for the Virginia Aquatic Restoration Trust Fund (2009) which lists it as a priority conservation area. The specific goals of the bank are discussed in section 3.1.

1.2 Contact Information

Wildlands is the sponsor and agent and has a recorded option with the land owner to place the land area required to develop the bank in conservation. Wildlands is the default long term steward until such time as another long term steward is identified and approved by the Interagency Review Team. The contact information for the proposed RSMB is as follows:

Sponsor/Agent:	Wildlands Engineering Inc c/o Shawn Wilkerson 1430 South Mint Street Suit 104 Charlotte, NC 28203 (704) 332-7754 swilkerson@wildlandseng.com
Owner:	Henry Wall PO Box 2067 Martinsville, VA 24113
Property Location:	Address: Ravenscroft Road 24112 LAT: 36° 45.920'N LONG: 79° 47.357'W



2.0 Existing Conditions

2.1 Geographic Location and Land Use

The property is situated in the Piedmont Physiographic Province bordered on the north by Turkeycock Mountain (Figure 2 – Watershed Map). The site is situated in the headwaters of the Leatherwood Creek watershed which drains to the Smith River then ultimately feeding the Dan River (hydrologic unit code: 03010103).

The property exhibits a mix of rolling and steep topography with elevations ranging from 800 feet above mean sea level (AMSL) in the southern portion of the site to 1000 feet AMSL located at the northern most portion of the site along the southern slope of Turkeycock Mountain.

The pastured portions of the property located in the lower stream valleys along the East and West Forks of Leatherwood Creek are currently used for cattle and horse grazing. Livestock have full access to the streams. The combination of land conversion, historic channelization, livestock access, and watershed land use practices have contributed to the current impaired and degraded condition of the streams running through the lower valley.



Example of eroded banks on East Fork Leatherwood



Example of high quality reach on East Fork Leatherwood

The lower valley system is connected to the upper valley system, which contains high quality, stable streams located within forest. The property is one of the last agricultural parcels located along Turkeycock Mountain. The project site also contributes runoff to Reservoir #3, located downstream of the site on Leatherwood Creek, which is a supplemental drinking water supply reservoir for the City of Martinsville.



2.2 Property Ownership and Long Term Site Protection

The site is contained within five parcels as recorded in the Henry County Register of Deeds (parcel identification numbers 232370000-5). The parcels are contiguous and owned by Henry C. Wall and total 322.6 acres of agriculturally zoned land. A copy of the title summary and property plat is presented in Attachment 1.0. An Option Agreement for the project area has been signed by the property owner and a Memorandum of Agreement, as presented in Attachment 1.0, has been recorded. The option agreement allows Wildlands to restrict the land use in perpetuity through deed restrictions or restrictive covenants.

2.3 Geology and Soils

The site is located near the western limits of the Outer Piedmont Subprovince of the Piedmont Physiographic Province near the division between the Outer Piedmont and the Piedmont Foothills in the Western Piedmont Geological Terrane. The western Piedmont Terrane is composed of early Paleozoic igneous and meta-sedimentary rocks associated with the suture zone with the Blue Ridge Province. The physiography of the area is characterized by broad rolling hills and moderate slopes with deeply weathered bedrock, and a relative paucity of solid outcrop. Rocks are strongly weathered in the Piedmont's humid climate and bedrock is generally buried under a thick (2-20 meter) blanket of saprolite. Outcrops are commonly restricted to stream valleys where saprolite has been removed by erosion. The topography of the site is somewhat more rugged with its proximity to the Foothills and Blue Ridge Mountains.

Soils information for the site was obtained from the Henry County Virginia Soil Survey, USDA-NRCS. Soils in the steeper slope areas were formed from igneous and metamorphic rocks with a high base content of calcium and magnesium. The Woolwine-Clifford complex is a common example of soils found on the slopes of the RSMB site. Due to the steep nature of the topography and frequency of limestone rock outcrops, these areas are typically used for pasture or remain wooded. The depth to bedrock is generally two to six feet. All of the soils are deep and well drained with moderate permeability. The majority of the soil complexes found in the lesser sloped valley areas were generally formed from alluvium and residuum from sandstone and shale. Colvard fine sandy loam is the predominant soil complex found in the lower valley floodplain areas of the site.

2.4 Streams

The RSMB contains approximately 13,950 linear feet of perennial streams within the project limits (See Figure 3 – Stream Map) and can be divided into two categories: forested preservation reaches and pastured restoration/enhancement reaches. The restoration/enhancement reaches are impaired low slope streams located in pastures, and consists of the lower portions of East Fork Leatherwood Creek (EF), EF₂, EF₃, EF₄, EF₅, West Fork Leatherwood Creek (WF), and WF₁. The preservation reaches are generally high slope streams and consists of all of WF₂, WF₃, EF₁, and



East Fork Leatherwood Creek in upper valley forest

EF₆ in addition to the upper forested portions of EF₂, EF₃, EF₄, EF₅, and the headwaters of EF (See Figure 4 – Concept Map). Each stream is described briefly below.



2.4.1 East Fork Leatherwood Creek

East Fork Leatherwood Creek begins in the southern slope of Turkeycock Mountain and meanders through a mature forest before emerging into open pasture. The upper valley reach of East Fork Leatherwood Creek, which is proposed for preservation, is a high quality stream with mature buffers. The channel substrate is generally comprised of cobble, gravel, and large woody debris with frequent bedrock outcroppings. Observations of this stream reach indicate high quality conditions for diverse macro invertebrate habitat.



East Fork Leatherwood Creek entering the lower valley

As the East Fork Leatherwood Creek emerges into the open pasture area it becomes relatively straight with only a few over-exaggerated meander bends. This reach, which is proposed for enhancement and restoration, is currently incised, experiencing moderate to severe bank erosion, and is severely impacted by cattle trampling. It has a very low width depth ratio and may have been historically dredged and straightened. There is what appears to be a low berm feature likely comprised of dredge spoils on river right.

2.4.2 Tributaries to East Fork Leatherwood Creek

The upper valley tributaries to East Fork Leatherwood Creek, which include EF1, EF2, EF3, EF4, EF5, and EF6, contain reaches proposed for preservation, enhancement, and restoration. All of these tributaries originate in the high quality preservation areas on the southern slope of Turkeycock Mountain and extend to the East Fork Leatherwood Creek valley .



Tributary EF 1 – Preservation Reach

Tributary EF1 is a high quality stream channel with mature buffers. This tributary originates at Blue Knob and cascades through the mature forest canopy before converging with East Fork Leatherwood Creek .

Tributary EF6 converges with EF1 at the midpoint of the EF1 reach. EF1 and EF6, which are proposed for preservation, are highly stable stream channels with small waterfall and step pool morphology. Channel substrate is generally comprised of cobble, gravel, and large woody debris with frequent bedrock outcroppings. Visual observations indicate a high quality and diverse community assemblage conducive to high quality macro invertebrate habitat. Riparian buffers are hardwood stands comprised of species generally associated with Rich Cove and Slope Forests as classified by Fleming, et. al., (2012).





Tributary EF 2 in Pasture Area

Tributary EF2 forms in the western headwaters of East Fork Leatherwood Creek and runs through forested land cover. The stream reach within the forested area, which is proposed for preservation, is stable with high quality channel substrate and minimal bank erosion. The tributary enters the pasture upstream of its confluence with East Fork Leatherwood Creek. The EF2 reach within the pasture, which is proposed for restoration, appears channelized and is heavily impacted by cattle trampling. EF2 has a low width depth ratio, appears incised, and is entrenched within a narrow valley as it approaches its confluence

with EF. It lacks riffle and pool morphology and exhibits moderate stream bank erosion.

Tributary EF3 flows east to west through a hardwood forest stand. This reach, which is proposed for preservation, has stream banks that are stable and the bed substrate contains cobbles and gravel with occasional boulders providing grade control. The tributary enters the pasture area upstream of the confluence with East Fork Leatherwood Creek. As Tributary EF3 emerges into the pasture area, the stream exhibits minor to moderate bank erosion and is incised above the confluence with East Fork Leatherwood Creek. This reach is proposed for a combination of enhancement and restoration.

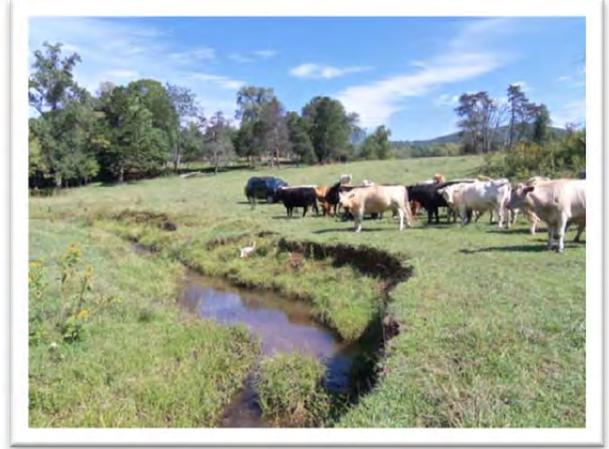
Tributary EF4 also forms in the western headwaters of East Fork Leatherwood Creek and runs through forest. The stream reach within the forested area, which is proposed for preservation, is stable with high quality channel substrate and minimal bank erosion. The tributary enters the pasture upstream of its confluence with East Fork Leatherwood Creek. The EF4 reach within the pastured area, which is proposed for restoration, exhibits historic channelization and clearing of vegetation. In addition, this reach is open to cattle access so the banks have been trampled which has resulted in the lack of well-defined channel dimension, fine sediment aggradation, and decreased vegetation cover. EF4 has a low width depth ratio, appears incised, and is entrenched within a narrow valley as it approaches its confluence with EF.

Tributary EF5 flows through a hardwood forest. The stream reach within the forested area, which is proposed for preservation, is stable and the bed substrate contains cobbles and gravel with occasional boulders providing grade control. The tributary enters pasture upstream of the confluence with East Fork Leatherwood Creek. As Tributary EF5 emerges into the pasture area, the stream exhibits minor to moderate bank erosion. This reach, which is proposed for restoration, is vertically unstable directly above its confluence with EF.



2.4.3 West Fork Leatherwood Creek

West Fork Leatherwood Creek, which is proposed for restoration, is located in pasture and cattle have access to the entire stream length. Moderate to severe bank erosion is present throughout the reach. Channel substrate is generally comprised of cobble, gravel, and a high fine sediment load with infrequent bedrock outcroppings. The combination of bedrock and large bed material has limited channel incision. Habitat for fish and macro invertebrates is poor due to a lack of large woody debris, heavily embedded riffle substrates, and poor bed form diversity.



West Fork Leatherwood Creek

2.4.4 Tributaries to West Fork Leatherwood Creek

Tributary WF1 is currently impaired due primarily to cattle access and is proposed for restoration. The stream has eroding banks and lacks well defined diverse bed forms. The stream's substrate is impacted by fine sediment and habitat for fish and macro invertebrates is low quality.

WF2 is a small, low gradient stream proposed for preservation. WF2 is a high quality stream located in a mix of scrub shrub and regrowth forest.

WF3, which is proposed for preservation, is a high quality small stream channel with mature buffers. The channel ranges in form from small waterfall and step pool morphology to slightly meandering channels within deep valleys. Channel substrate is generally comprised of cobble, gravel, and large woody debris with frequent bedrock outcroppings. Observations of macro invertebrates indicate a high quality and diverse community assemblage.



Tributary WF1 in Pasture Area

2.5 Watersheds

The property's hydrology is supplied by surface water runoff from the surrounding landscape and groundwater-fed springs and seeps located along the drainage ways which provide essential base flow and recharge to all stream channels. The watershed begins at the ridge of Turkeycock Mountain and drains south forming the East Fork Leatherwood Creek. The East Fork Leatherwood Creek converges with the West Fork Leatherwood Creek at the southern-most point in the project area which drains into the Smith River.

The East Fork Leatherwood Creek watershed is estimated to be 98% forested and 2% agricultural land use with a few mountain homes. Since Turkeycock Mountain is a Wildlife Management Area no significant changes are expected in this watershed.



Table 2.1 Stream Reaches and Contributing Watersheds

Project Reach	Drainage Area (acres)	Predominant Land Use	Stream Reach Length	Stream Order
East Fork Leatherwood	1040.0	Agriculture 11%, and Forest 89%	5450	3
EF 1	140.4	Forest 100%	1120	1
EF 2	35.1	Forest 100%	755	1
EF 3	74.8	Agriculture 7.5% and Forest 92.5%	779	1
EF 4	10.7	Forest 100%	1003	1
EF 5	19.1	Agriculture 5%, and Forest 95%	1417	1
EF 6	24.7	Agriculture 77% and Forest 23%	187	1
West Fork Leatherwood	1004.0	Agriculture 7%, and Forest 93%	1919	3
WF 1	796.0	Agriculture 42%, Forest 32%	773	2
WF 2	12.0	Agriculture 35% and Forest 65%	137	1
WF 3	20.8	Forest 100%	410	1

2.6 Vegetation

Native vegetation within the floodplain limits of East Fork and West Fork Leatherwood Creek has been significantly disturbed from past land use practices. Vegetation within the lower valley areas with enhancement and restoration reaches consists mostly of grass/forb pasture community with a few large overstory trees scattered along the streambank and across the floodplain that include black walnut, sour wood, and tag alder. The preservation reaches contain high quality forests typically associated with Rich Cove and Slope Forests. The hardwood species include Red maple, American sycamore, witch hazel, hickory, dogwood, beech, spice bush, ironwood, and mountain laurel.

2.7 Wildlife

Most of the wildlife species observed on or adjacent to the property and surrounding areas are typical for the Piedmont region. Based on data from the Virginia Department of Game and Inland Fisheries (VDGIF), the following wildlife species are likely to be observed on the property:

- Avian species include: American goldfinch, barn swallows, barred owl, blue jay, Canada goose, Carolina chickadee, cedar waxing, dark-eyed junco, downy, eastern bluebird, eastern meadowlark, eastern phoebe, eastern towhee, grasshopper sparrows, great horned owl, hairy and red-bellied woodpeckers, hooded merganser, indigo bunting, mallard duck, mourning dove, northern cardinal, northern flicker, northern harrier, northern bobwhite quail, red-eyed vireo, red-tailed hawk, red-wing black bird, tufted titmouse, wild turkey, white-breasted nuthatch, and wood duck.



- Butterflies include: eastern tiger swallowtail, great spangled fritillary, monarch, pearl crescent, pipevine swallowtail, queen, silver spotted skipper, and spicebush swallowtail. Mammals include black bear, bobcat, chipmunk, coyote, gray squirrel, ground hog, opossum, rabbits, red fox, skunk, and white-tailed deer.
- Reptiles include: black racer, copperhead, eastern box turtle, eastern fence lizard, eastern garter snake, eastern king snake, eastern milk snake, hognose snake, northern water snake, painted turtle, rat snake, skink, and snapping turtle.

2.8 *Heritage Elements and Permitting Limitations*

Wildlands will submit a data request to the Division of Natural Heritage to document the location of the Natural Heritage Conservation Sites (NHCS) and their proximity to the RSMB Site. The data will detail the study area, including site name, biodiversity ranking, site description and acreage. The NHCS will include the plant, animal, natural community or geologic feature its associated habitat and buffer or other adjacent land thought necessary for the element's conservation. The NHCS will be given biodiversity significance rank based on the rarity, quality, and number of element occurrences it contains.

2.8.1 Threatened and Endangered Species

Information pertaining to the presence and/or absence of rare, threatened and endangered species and communities has been obtained from the VDGIIF. The Fish and Wildlife Information System (FWIS) have provided a list of documented or "likely to occur" rare, threatened, and endangered species including flora and fauna within a three-mile radius of the site. The results of the FWIS data base search are presented below in table 2.2. The United States Fish and Wildlife Service's (USFWS) Information, Planning, and Conservation System (IPac) Environmental Conservation Online System was queried for the project. The resulting Endangered Species Act species list for the project includes James spiny mussel (*Pleurobema collina*), Roanoke logperch (*Percina rex*), Smooth coneflower (*Echinacea laevigata*). Wildlands submitted a project review package to the USFWS Virginia Field Office on July 11, 2013. The initial conclusion based in site visits and review of habitat requirements is that there would be no effect on the James spiny mussel and Smooth coneflower and a "not likely to adversely affect" for the Roanoke logperch. The project review package is included in Attachment 4.0



Table 2.2 Threatened and Endangered Species List (FWIS)

Common Name	Scientific Name	Status	Tier
Shrike, loggerhead	Lanius ludovicianus	State Threatened	I
Falcon, peregrine	Falco peregrines	State Threatened	I
Orangefin madtom	Noturus gilberti	Federal Species of Concern State Threatened	II
Roanoke logperch	Percina rex	Federally Endangered State Endangered	I
Sandpiper, upland	Bartramia longicauda	State Threatened	I
Eagle, bald	Haliaeetus leucocephalus	Federal Species of Concern State Threatened	II
Pigtoe, Atlantic	Fusconaia masoni	Federal Species of Concern State Threatened	II
Shrike, migrant loggerhead	Lanius ludovicianus migrans	State Threatened	II

2.8.2 Historical Resources Screening

Based on a search of The Virginia Department of Historic Resources (VDHR) for prehistoric and historic archaeological and architectural resources, there are two archeological sites located south of the RSMB that have been deemed Potentially Eligible for listing on the National Register of Historic Places (NRHP) by DHR. Information for these sites is presented in Attachment 2.o. DHR Site #44HR0191 which is located on the western floodplain bench of East Fork Leatherwood Creek just upstream of the confluence with West Fork Leatherwood Creek, verifies the presence of a prehistoric cemetery. DHR Site #44Ha115 is located on the western bank of West Fork Leatherwood Creek verifies the presence of prehistoric artifacts. The artifacts found all came from the western side of West Fork Leatherwood Creek. The proposed area of work for the East Fork Leatherwood Creek shows no mapped cultural findings, however it is anticipated that a Phase I Cultural Survey will be required to ensure no impact.

3.0 Bank Establishment Measures

3.1 *Mitigation Bank Goals*

Wildlands is proposing the Ravenscroft Stream Mitigation Bank (RSMB) to provide ecological uplift to the streams and riparian corridors comprising the East Fork of Leatherwood Creek (EF), six tributaries to East Fork (EF1, EF2, EF3, EF4, EF5, and EF6), West Fork of Leatherwood Creek (WF), and three tributaries to West Fork (WF1, WF2, and WF3) via natural systems restoration combining restoration, enhancement, and preservation approaches.

The major goals of the RSMB are:

- to protect and augment the existing natural areas within the Turkeycock Mountain Range;
- to provide water quality benefits for the receiving Leatherwood Creek and Roanoke River sub-basin (HUC 03010103) by reducing nutrient/sediment inputs and improving nutrient and sediment trapping by increasing floodplain connectivity.



- to improve water quality in the Leatherwood Creek watershed and in Reservoir #3 by removing cattle from the adjacent stream valleys and by reducing sediment inputs through buffer reestablishment;
- to improve habitat for macro invertebrate and fish communities through reestablishment of natural stream function, bed-form structure, and reduction in sedimentation;
- to provide offsite compensatory mitigation to unavoidable impacts to aquatic resources from development activities within the Geographic Service Area (GSA)

3.2 *Mitigation Bank Instrument, Permits, and Ownership Agreements*

The Ravenscroft Stream Mitigation Bank Instrument (RSMBI) will be established in accordance with the most current version of the Mitigation Banking Template provided by the Norfolk District, Army Corps of Engineers, the Code of Virginia Section 33.1-223.2.1 Wetland Banking and the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule – Parts 33 CFR 325 and 332 (Department of the Army; Corps of Engineers) & Parts 40 CFR Part 230 (Environmental Protection Agency).

The RSMBI will include a Mitigation Bank Development Plan (MBDP) describing how the credits will be obtained and the construction, operation, and maintenance of the bank. Wildlands will obtain all necessary permits and authorizations required to establish, construct, and maintain the RSMB. The bank will be developed to avoid and minimize temporary and permanent adverse impacts to the environment to the greatest extent practicable. The Owner has signed a recorded agreement which allows the Sponsor to perform mitigation activities and to record restrictive covenants or conservation easements on the property.

3.3 *Mitigation Approach and Crediting*

The plan for the RSMB involves the restoration of dimension, pattern, and profile to approximately 8,347 linear feet, enhancement of 662 linear feet, and 4,941 linear feet of preservation (Figure 4 – Concept Map). As a result of the proposed restoration activities and associated sinuosity, total stream length within the project area will be increased from approximately 13,950 feet to 14,786 feet. 100 foot buffers are proposed along all of the restoration, enhancement, and preservation reaches. No preservation or work is proposed in the buffers beyond the inner 100 feet. All streams to be restored and enhanced are impaired and have been impacted by channelization, cattle access, and past land use disturbances.

Restoration of the streams located in the pasture area will follow the priority one restoration approach. This involves setting the top of bank elevation of the proposed stream channel at the original floodplain elevation. The priority one restoration will include re-patterning the stream to create a meandering system with riffles in the straight sections and pools in the arced sections. The cross section or dimension will also be adjusted primarily through increasing the width depth ratio to create a wider, shallower riffle. Deep, wide pools will also be designed. The profile will be adjusted to create a stable riffle-pool bed form sequence.

The design of the pattern, dimension, and profile will be based on a combination of reference reach data, available regional hydrologic data sets, previous project experience, and best professional judgment. The priority one restoration will be consistent with the natural channel design approach and will result in a channel that achieves self-maintained stability and neither aggrades its bed or significantly degrades its bed and banks.



Structures used in the priority one restoration design will include a variety of riffle types comprised of native stone and often incorporating logs and wood. Log sills, vanes, and J-hooks will be used as appropriate. Outer meander bends will be stabilized with brush toe and brush mattress techniques. Live stakes and herbaceous plugs will be installed along the streambanks to promote vegetative stability.

Enhancement activities will vary but will generally include instream grade control and habitat structures, bank grading, bankfull benching, and live staking.

The inner 100' buffers will be preserved in the forested areas and planted with a mix of native hardwood trees in the pasture areas. Trees with low mortality rates when planted in pasture being converted to forest will be favored. The pastured valley along the East Fork of Leatherwood Creek is relatively narrow and the 100 foot buffer is anticipated to encompass the entire pasture area. Existing fencing and gates along the farm road will be used to exclude livestock from this area. The livestock exclusion strategy for the portion of the West Fork of Leatherwood Creek above the farm road is the same as the strategy for the East Fork. The area below the farm road that includes EF, WF, WF₁, and WF₂ will be fenced along the easternmost edge of the 100' buffer along EF if the landowner wishes to run livestock on the remaining eastern pastures. This fencing along the eastern EF buffer will prevent livestock access to the project area under conservation.

Wildlands has performed an initial credit determination based on a preliminary unified stream methodology (USM) analysis. Based on the design approach discussed in Section 2.4, the stream mitigation potential of the subject site as currently configured is 15,559 credits as presented on Table 3.1. 681 SMU's (4.4% of total credits) are generated from preservation and 14,878 SMU's (95.6% of total credits) are generated from restoration and enhancement.



Table 3.1 Credit Summary

Reach Name	Restoration Approach	Design Stream Length (feet)	Estimated Credits Generated
East Fork Leatherwood	Restoration	4,925	8,039
East Fork Leatherwood	Enhancement	511	654
East Fork Leatherwood	Preservation	462	65
EF 1	Preservation	1,120	120
EF 2	Restoration	360	418
EF 2	Preservation	428	60
EF 3	Restoration	160	160
EF 3	Enhancement	151	82
EF 3	Preservation	483	68
EF 4	Restoration	492	547
EF 4	Preservation	556	78
EF 5	Restoration	285	291
EF 5	Preservation	1,158	162
EF 6	Preservation	187	12
West Fork Leatherwood	Restoration	2111	3,546
WF 1	Restoration	850	1,196
WF 2	Preservation	137	4
WF 3	Preservation	410	57
Totals		14,786	15,559

3.4 Geographic Service Area

Per the requirements stated in 33 CFR §332.8(d)(6)(ii)(A) the proposed Geographic Service Area (GSA) of the RSMB is the Roanoke River sub-basin (HUC: 03010103). Additionally, contiguous sub-basins HUC: 03010101, 03010105, and 03010104 will be included as part of the service area. The proposed service area will include all of, or portions of the counties of Henry, Patrick, Franklin, Pittsylvania, Halifax, Bedford, Roanoke, and Montgomery, as shown in Figure 5 – Geographic Service Area Map.



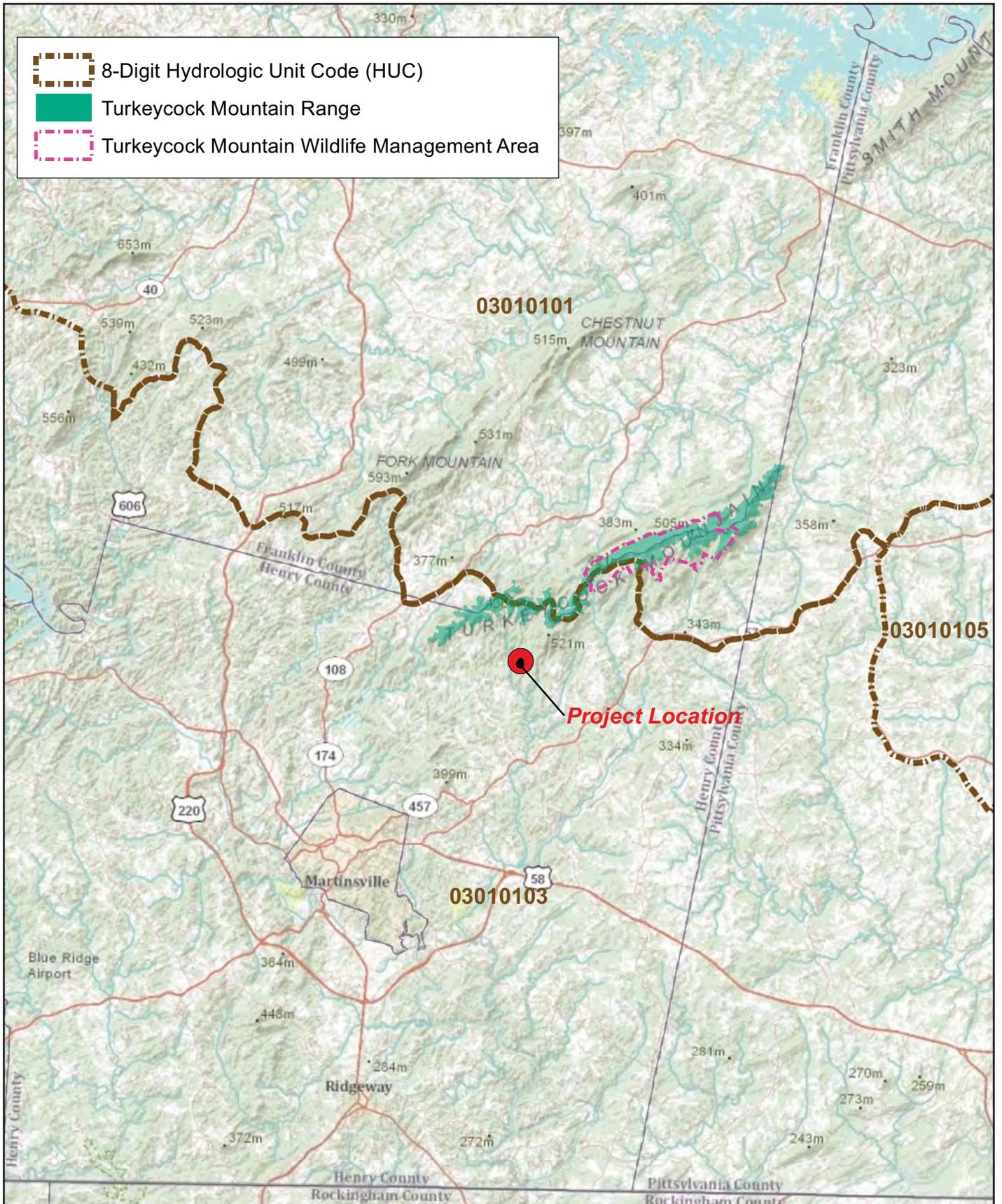


Figure 1 Vicinity Map
 Ravenscroft Stream Mitigation Bank
 Roanoke Basin 03010103



**Figure 3 Stream Map
 Ravenscroft Stream Mitigation Bank
 Roanoke Basin 03010103**

Henry County, VA

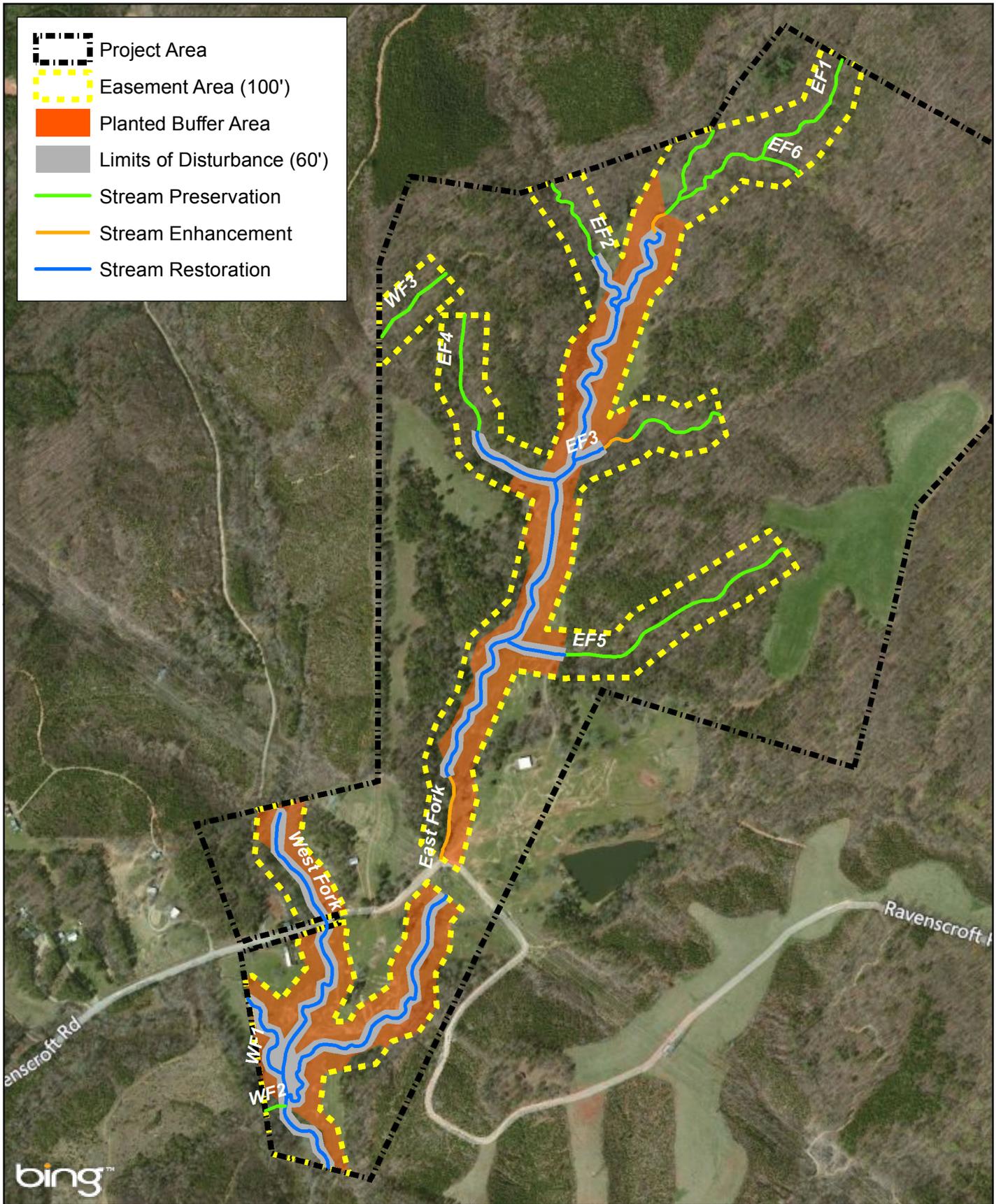
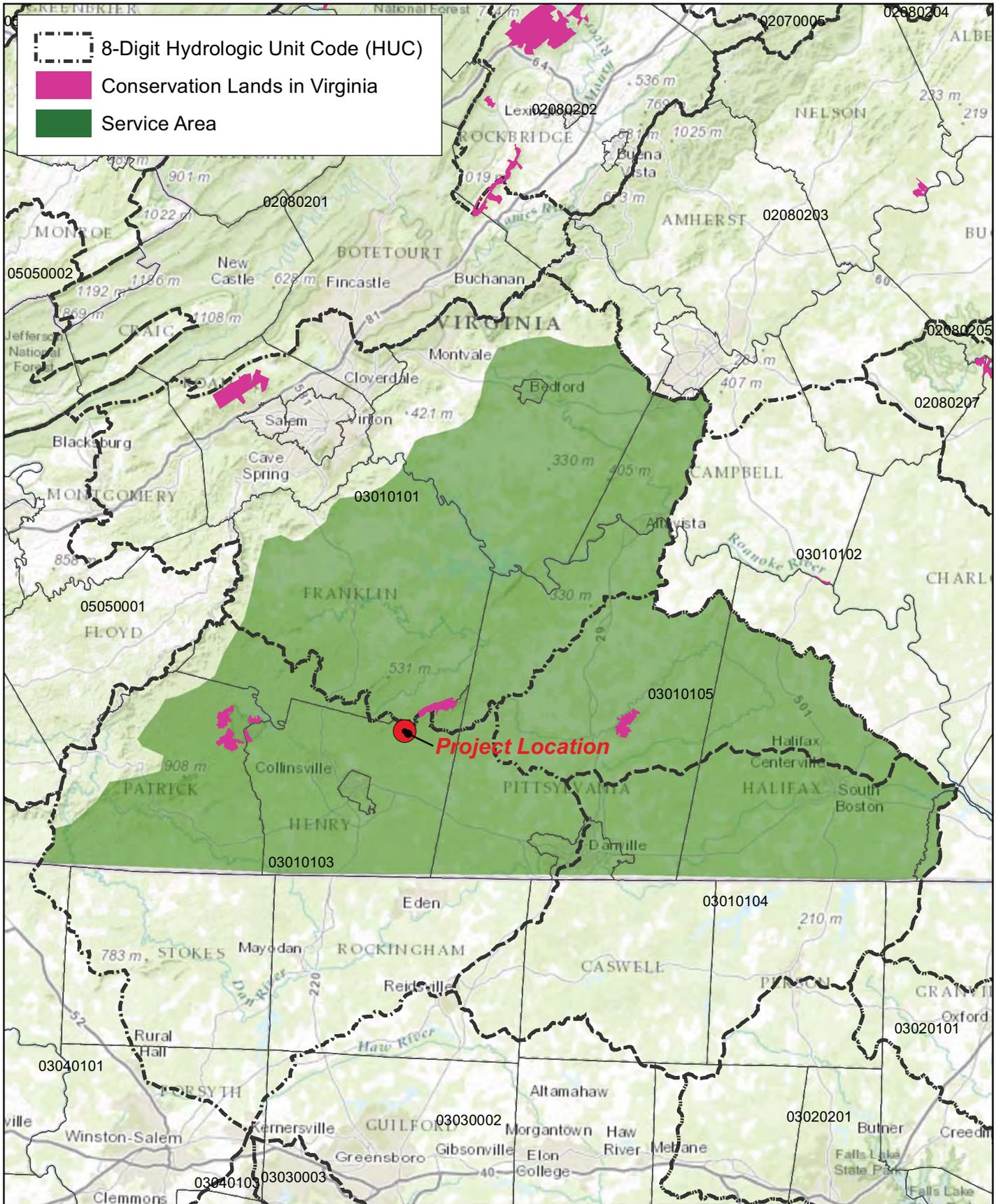
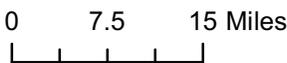


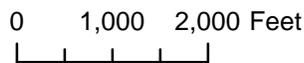
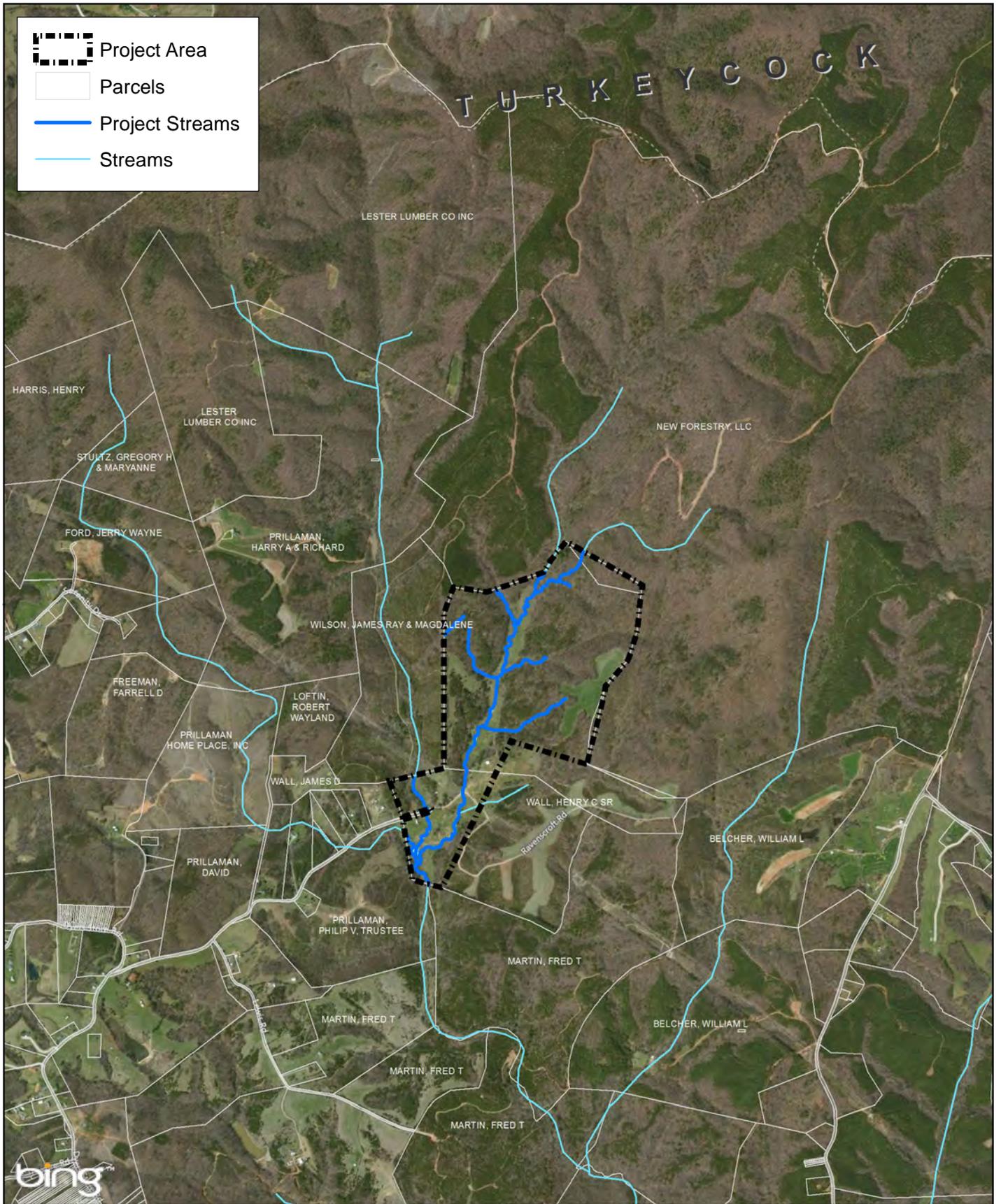
Figure 4 Concept Mitigation Map
 Ravenscroft Stream Mitigation Bank
 Roanoke Basin 03010103





**Figure 5 Geographic Service Area Map
Ravenscroft Stream Mitigation Bank
Roanoke Basin 03010103**





**Figure 6 Adjacent Parcels
Ravenscroft Stream Mitigation Bank
Roanoke Basin 03010103**

ATTACHMENT 1.0 – Memorandum of Agreement, Title Summary, 907a Ybž and Property Plat

120003443

**RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:**

Wildlands Engineering, Inc.
1430 S. Mint Street, Suite 104
Charlotte, North Carolina 28203
Attention: Andrea S. Eckardt

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MEMORANDUM OF AGREEMENT

THIS MEMORANDUM OF AGREEMENT (this "**Memorandum**") is made and entered into as of the date of the last execution, which date is the 5th day of September, 2012, by and between Henry C. Wall, Sr. ("**Optionor**"), and **WILDLANDS ENGINEERING, INC.**, a North Carolina corporation ("**Optionee**").

WITNESSETH:

WHEREAS, Optionor and Optionee have entered into that certain Agreement for Option to Purchase Mitigation Use Rights (the "**Agreement**") dated as of an even date with this Memorandum;

WHEREAS, the Agreement pertains to certain premises containing approximately 325.65 acres located in Henry County, Virginia, said premises being more specifically described on ATTACHMENT A, attached hereto and made a part hereof (the "**Property**"); and

WHEREAS, Optionor and Optionee desire to create notice of the Agreement in the Public Records of Henry County by the recitations contained in this Memorandum.

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Optionor does hereby grant unto Optionee an option to purchase the Mitigation Use Rights on the Property upon the following the terms and conditions:

1. The Term of the Option shall expire on 9/5/2013.
2. This Memorandum is subject to all conditions, terms and provisions of the Agreement, which is hereby adopted and made a part hereof by reference to the same in the same manner as if all the provisions of the Agreement were copied herein in full.
3. In the event of a conflict between the terms of the Agreement and this Memorandum, the Agreement shall prevail. Reference should be made to the Agreement for a more detailed description of all matters contained in this Memorandum.
4. The Agreement and the terms and conditions contained herein and within the Agreement shall be binding upon the heirs, successors and assigns of the Optionor and Optionee.

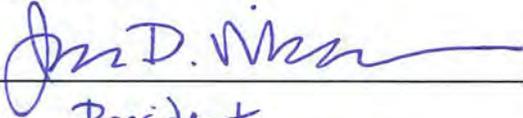
[EXECUTION PAGES TO FOLLOW]

SEP 5 2012 PG0045

IN WITNESS WHEREOF, Optionor and Optionee have executed this Memorandum effective as of the date first written above.

OPTIONEE:

WILDLANDS ENGINEERING, INC., a North Carolina corporation

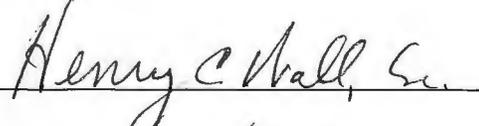
By: 

Title: President

Date: 9/5/2012

OPTIONOR:

Henry C. Wall, Sr.

By: 

Date: 09/05/2012

SEP 5 2012 PG0046

STATE OF Virginia
City
COUNTY OF Martinsville

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Shawn D. Wilkerson

name(s) of principal(s)

Date: 9/5/12

Penelope Jean Nelson
(official signature of Notary)
Penelope Jean Nelson, Notary Public
(Notary's printed or typed name)



My commission expires: May 31, 2016

STATE OF Virginia
City
COUNTY OF Martinsville

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Henry C. Well, Sr.

name(s) of principal(s)

Date: 9-5-12

Penelope Jean Nelson
(official signature of Notary)
Penelope Jean Nelson, Notary Public
(Notary's printed or typed name)



My commission expires: May 31, 2016

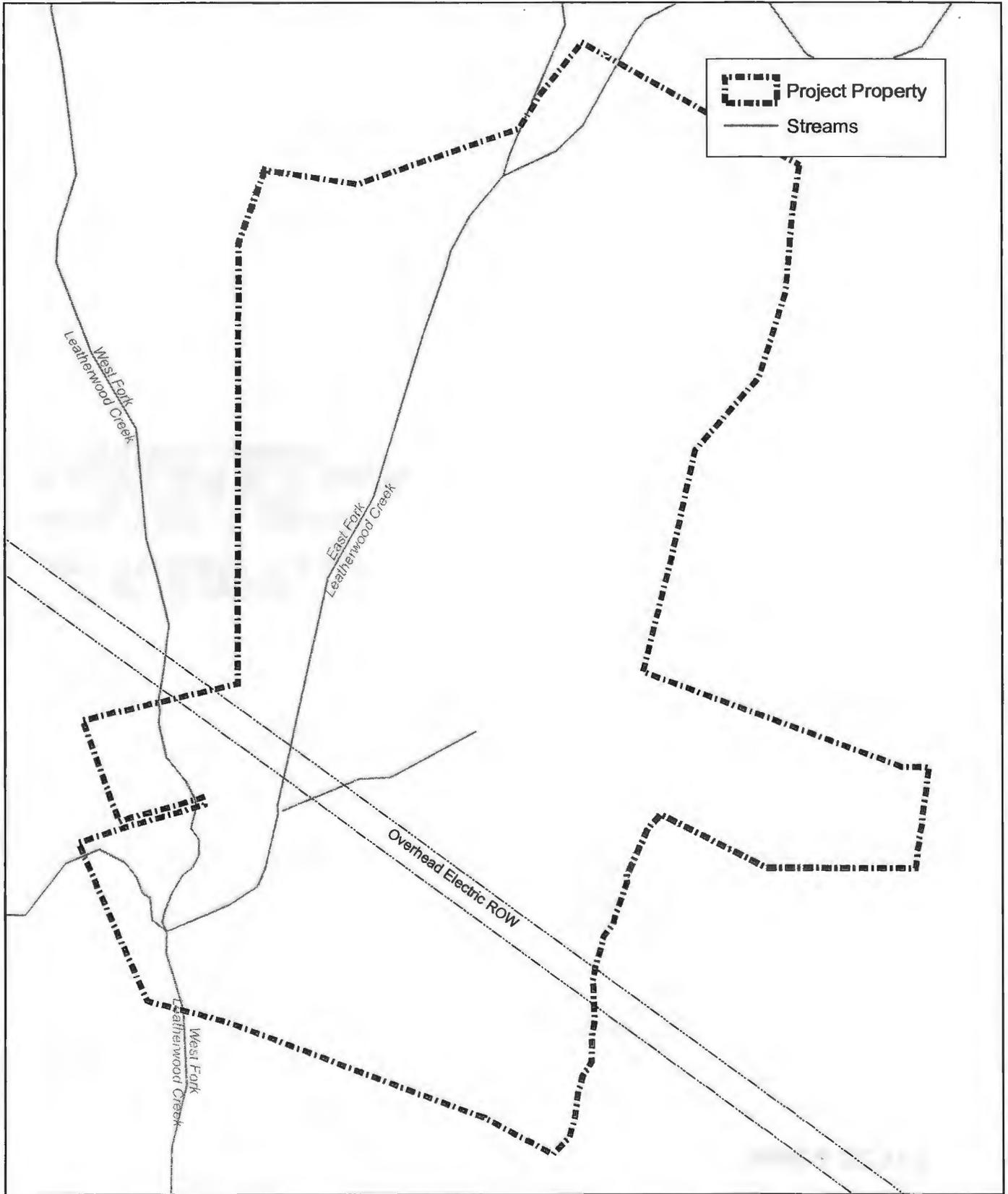
ATTACHMENT A

DESCRIPTION OF PROPERTY

Real property, consisting of approximately 325.65 acres, located in the County of Henry, State of Virginia, commonly known as Property Numbers 232370000, 232370001, 232370002, 232370003, 232370004, 232370005.

SEP 5 2012 PG0048

SDW
HW



Attachment A
Roanoke Basin 03010103

SEP 5 2012 PG0049

SPW

Henry County, VA

How

TITLE EXAMINATION REPORT

THIS IS A REPORT OF MATTERS APPEARING IN THE OFFICIAL LAND RECORDS OF THE JURISDICTION IN WHICH THE PROPERTY IS LOCATED. NO SEARCH HAS BEEN MADE FOR ANY MATTERS RECORDED IN THE FEDERAL COURTS. THIS REPORT DOES NOT PURPORT TO BE A COMMITMENT OR POLICY OF TITLE INSURANCE NOR DOES IT PURPORT TO DETERMINE MARKETABILITY OF TITLE. THIS REPORT IS FOR THE USE OF THE RECIPIENT ONLY.

RECIPIENT: Andrea Spangler Eckhardt, Senior Environmental Planner
Wildlands Engineering, Inc.
1430 South Mint Street Suite 104
Charlotte NC 28203

RECIPIENT'S CASE NO: Unknown

LAND RECORDS RESEARCH CASE NO: LRR 12-033

TITLE TO THE BELOW DESCRIBED PROPERTY IS VESTED OF RECORD IN:

Henry Clayton Wall (also known of record as Henry C. Wall and Henry C. Wall, Sr.)

Chain of Title:

The subject property was originally acquired by deed from Cary J. Randolph, Special Commissioner, to Clayton W. Wall and Eunice B. Wall, his wife, dated April 26, 1955, recorded in Deed Book 129, page 553. Please note that this deed did not create a survivorship estate in the grantees.

Clayton W. Wall (also known as Wilford Clayton Wall and C. W. Wall) died testate on November 1, 1977, pursuant to List of Heirs filed in the Clerk's Office of the City of Martinsville Circuit Court in Will Book 28, page 282. By the terms of his will recorded in the Clerk's Office of the City of Martinsville Circuit Court in Will Book 28, page 278 (joint will), he devised a life estate only in the subject property to his wife, Eunice B. Wall, but made no other devise of the property. He does refer to "...remaindermen, who are my children...", but there is no specific devise. Accordingly, the property would pass by the rules of intestacy in effect at the time of his death to his children and grandchild as listed on the List of Heirs as follows:

Jimmy Lee Wall, son
Tommy Coleman Wall, son
Betty Ruth Wall Curry, daughter
Henry Clayton Wall, son
David Bryan Witt (also known of record as David Brian Witt), grandson (being the son of his deceased daughter, Martha Ann Witt)

Accordingly, Jimmy Lee Wall, Tommy Coleman Wall, Betty Ruth Wall Curry, Henry Clayton Wall and David Bryan Witt each became vested with a 1/5 undivided interest in Clayton W. Wall's half interest or 1/10 interest in the fee.

Eunice Barrow Wall died testate on October 22, 1995, pursuant to List of Heirs filed in the Clerk's Office of the City of Martinsville Circuit Court in Will Book 86, page 226. By the terms of her will recorded in the Clerk's Office of the City of Martinsville Circuit Court in Will Book 28, page 278 (joint will), she specifically devised the subject property to her children as follows:

Jimmy Lee Wall
Tommy Coleman Wall
Betty Ruth Wall Curry
Henry Clayton Wall
David Bryan Witt, grandson being the son of her deceased daughter, Martha Ann Witt

Accordingly, Jimmy Lee Wall, Tommy Coleman Wall, Betty Ruth Wall Curry, Henry Clayton Wall and David Bryan (Brian) Witt each became vested with a 1/5 undivided interest in Eunice Barrow's half interest or 1/10 interest in the fee.

Pursuant to the above information, 1/5 undivided interest (or 2/10ths) in the fee title was vested in each of the following:

Jimmy Lee Wall
Tommy Coleman Wall
Betty Ruth Wall Curry
Henry Clayton Wall
David Bryan Witt, grandson being the son of her deceased daughter, Martha Ann Witt

Henry Clayton Wall acquired the 4/5 interest of his brothers, sister and nephew under the following deeds:

1/5 undivided interest

Grantor(s): David Brian Witt, married

Dated: January 17, 1996 **Deed Book & Pg./Inst. No:** 730-719

1/5 undivided interest

Grantor(s): Tommy C. Wall (no marital status stated – none required) by statute

Dated: August 24, 1998 **Deed Book & Pg./Inst. No:** 801-578

1/5 undivided interest

Grantor(s): Betty Ruth Wall Curry (no marital status stated – none required by statute)

Dated: September 3, 1998 **Deed Book & Pg./Inst. No:** 801-581

1/5 undivided interest

Grantor(s): Betty Ruth Wall Curry (no marital status stated – none required by statute)

Dated: September 17, 2002 **Deed Book & Pg./Inst. No:** 020006275

THE PROPERTY LIES IN THE COUNTY OF HENRY, VIRGINIA. Recordation references are to the Clerk's Office of the Circuit Court thereof unless otherwise stated.

BRIEF LEGAL DESCRIPTION:

Approximately 325.65 acres as shown on the plat entitled Plat of Survey for Clayton W. Wall dated May 23, 1977, recorded in Map Book 67, page 74

NOTE: Please see above referenced deeds for a more complete description.

DEEDS OF TRUST:

1. **Grantor(s):** Henry C Wall and Brenda E Wall (no marital status stated and none required)

Trustee(s): T. Gill Carter

Dated: July 14, 2011 **Deed Book & Pg./Inst. No:** 110002478

Original Principal Amount: \$ 100,000.00

Named Beneficiary: The Fidelity Bank

Assignments, Subordination Agmts, etc.: None

NOTE: This deed of trust affects only the 116.75 acre tract known as Tax Map No. 20.4(000)000/011.

JUDGMENTS: (X) NONE

JUDGMENTS & FEDERAL LIENS HAVE BEEN CHECKED IN THE NAME OF THE FOLLOWING PURCHASER(S):

Not applicable – no purchaser name provided

FINANCING STATEMENTS: (X) NONE

TAX & ASSESSMENT INFORMATION:

Assessed Owner: WALL Henry C Sr

Assessed Description: Turkey Cock Mt 116.750 acres

Tax Map/ID# 20.4(000)000/011 Parcel # 232370000
Land \$ 125,800 Improvements \$ 27,500 Total \$ 153,300
Annual Amt \$ 392.84 Taxes Payable on: October 1 of the calendar year
Taxes Paid Thru: Calendar year 2011 (12-31-11) Delinquent Taxes: None
Taxes a Lien, Not Yet Due: Calendar year 2012 (due 10-1-12)
Town Taxes, Exemptions, Rollback, Supplementals, Stormwater Fees, Etc: Yes – property is currently in the
LAND USE program
Property Address (not warranted): unknown

NOTE: The above information was information was provided by the Treasurer's office.

Assessed Owner: WALL Henry C
Assessed Description: Turkey Cock Mr St Rt 654 Tract 6 191.397 acres
Tax Map/ID# 20.5(000)000/006 Parcel # 232370001
Land \$ 162,700 Improvements \$ -0- Total \$ 162,700
Annual Amt \$ 566.26 Taxes Payable on: October 1 of the calendar year
Taxes Paid Thru: Calendar year 2011 (12-31-11) Delinquent Taxes: None
Taxes a Lien, Not Yet Due: Calendar year 2012 (due 10-1-12)
Town Taxes, Exemptions, Rollback, Supplementals, Stormwater Fees, Etc: Yes – property is currently in the
LAND USE program
Property Address (not warranted): Unknown

NOTE: The above information was provided by the Treasurer's office.

RESTRICTIONS AND/OR DECLARATIONS: (X) NONE

DEEDED EASEMENTS:

From: Clayton W. Wall and Eunice B. Wall, his wife
To: Appalachian Power Company
Dated: October 1, 1958 Deed Book & Pg./Inst. No: 150-478

From: Eunice B. Wall, *et al.*
To: Appalachian Power Company
Dated: November 29, 1983 Deed Book & Pg./Inst. No: 370-600

From: Eunice B. Wall
To: Central Telephone Company of Virginia
Dated: September 19, 1986 Deed Book & Pg./Inst. No: 430-485

From: Eunice B. Wall, widow
To: Commonwealth of Virginia
Dated: March 4, 1988 Deed Book & Pg./Inst. No: 525-251

ITEMS SHOWN ON PLAT OF SUBDIVISION recorded in/as _____: Not applicable – no standard subdivision plat

ITEMS SHOWN ON OTHER PLATS OF RECORD recorded in Map Book 67, page 74as follows:

1. Leathwood Creek and various branches crossing the subject property
2. Portion of Virginia State Secondary Route No. 654 crossing the subject property
3. Private road crossing the subject property leading to adjoining property owned by M. F. Roach

ACCESS

- (X) Public street(s) named: Virginia State Secondary Route No. 654
- () Appurtenant easement created by Deed Book & Pg./Inst. No.:
- () Road Maintenance Agreement in Deed Book & Pg./Inst. No.:

OTHER MATTERS:

1. The title research for this report began with the deed from Cary J. Randolph, Special Commissioner, to Clayton W. Wall and Eunice B. Wall, his wife, dated April 26, 1955, recorded in Deed Book 129, page 553 pursuant to the telephone instructions of the Recipient.

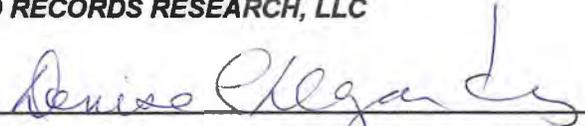
2. Conveyance to the Commonwealth of Virginia by deed from Eunice B. Wall, widow, *et al.*, dated March 4, 1988, recorded in Deed Book 525, page 251. Note that this document also contains an easement referenced above in the EASEMENTS section.
3. Timber Deed, and terms and conditions thereof, from Henry C. Wall (no marital status stated and none required) to Meadwestvaco Corporation dated June 5, 2003, recorded as Instrument No. 030004244. Please note that this document states that all harvesting and removal of the pulpwood and sawtimber was to be completed by May 1, 2006. However, the document also states that a termination of the obligation and agreement will be executed by both parties. No such termination was found of record.
4. The wills of Clayton W. Wall and Eunice Barrow Wall were probated in the Clerk's Office of the Circuit Court of the City of Martinsville only. They do not appear among the records of Henry County.
5. Henry Clayton Wall (also known of record as Henry C. Wall and Henry C. Wall, Sr.) appears to have a son named Henry C. Wall, Jr. No adverting was completed in the name of Henry C. Wall, Jr.
6. Such state of facts as would be disclosed by a physical inspection and current survey of the subject property.
7. Possible environmental lien(s) if any business was conducted on the subject property which would lead to environmental contamination.

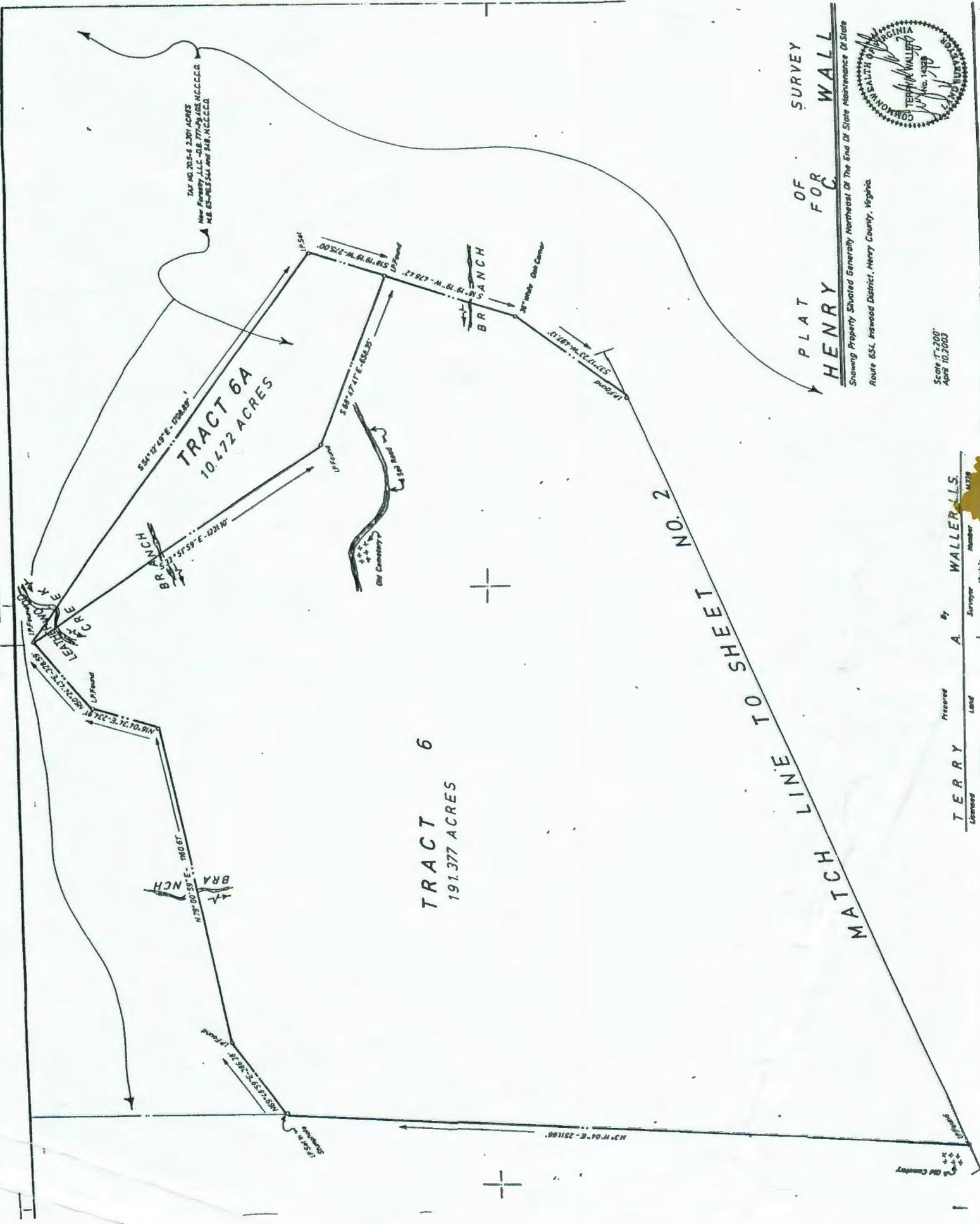
BACK TITLE INFO: **Exact** **Full** **Limited** **None X** **Policy/Case #**

EFFECTIVE DATE: July 25, 2012 @ 8:00 A.M.

LAND RECORDS RESEARCH, LLC

by _____


Denise (Dee) Phlegar King, Title Examiner



TAX NO. 265-4 2.001 ACRES
 New Property LLC - 481777
 A/E: 03-06-2015 and 04-11-2015

TRACT 6A
 10.472 ACRES

TRACT 6
 191.377 ACRES

NO. 2

PLAT OF SURVEY
 FOR
 HENRY WALL

Showing Property Situated Generally Northeast of The End of State Maintenance of State
 Route 656, Inwood District, Henry County, Virginia.



Scale: 1"=200'
 April 10, 2008

Prepared by
 TERRY A. WALLER
 Licensed Professional Surveyor
 License No. 14379
 State of Virginia

NOTES:

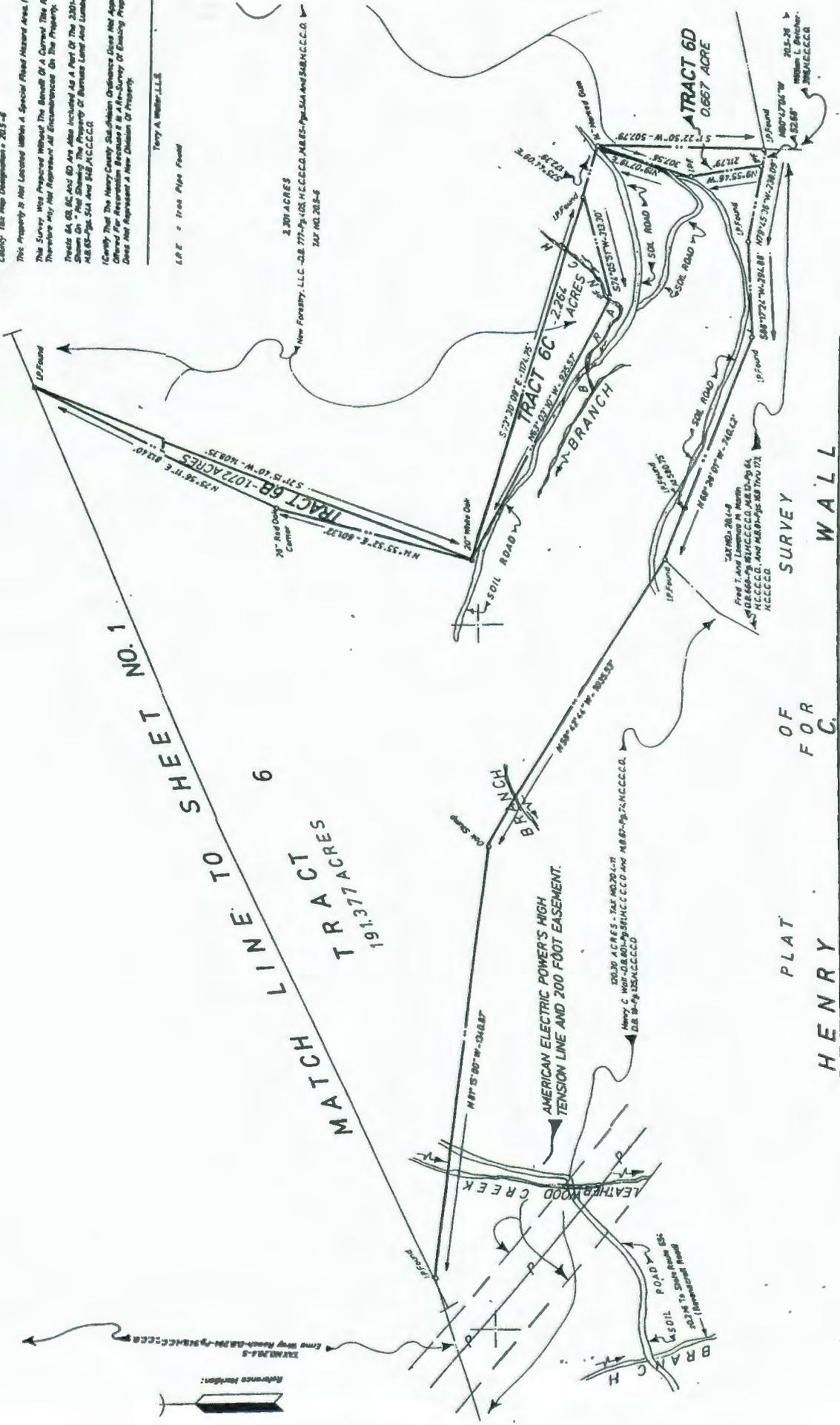
The Plat Represents A Current Survey By Terry A. Waller, L.L.S.
 County Tax Map Designation: 2015-48

This Property Is Not Located Within A Special Flood Hazard Area (Zone C)
 This Survey Was Prepared Without The Benefit Of A Current Title Report And
 Therefore May Not Represent All Encumbrances On The Property.

Tracts 6A, 6B, 6C, AND 6D ARE ALSO INCLUDED AS A PART OF THE 2307-ACRE TRACT AS
 SHOWN ON THE SURVEY OF THE PROPERTY OF HENRY LAND AND LUMBER CO., INC., IN
 M.B. 85-Pg. 504 AND 744.H.C.C.C.O.

I Certify That The Henry County Subdivision Ordinance Does Not Apply To This Plat
 Offered For Registration Because It Is A Re-Survey Of Existing Property And It
 Does Not Represent A New Division Of Property.

Terry A. Waller, L.L.S.
 L.P.E. = Iron Pipe Found

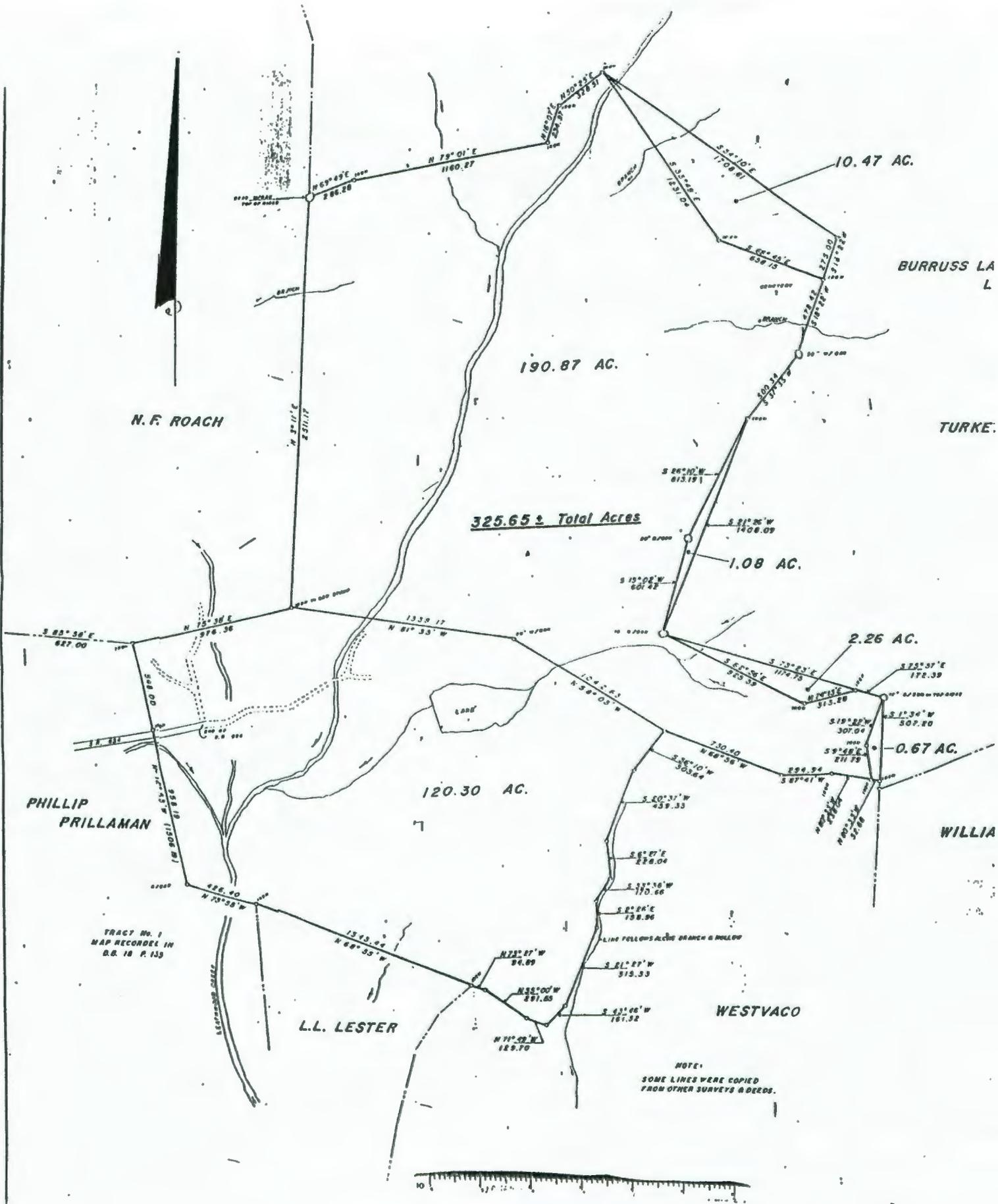


Showing Property Situated Generally Northeast Of The End Of State Route
 654, Henrico District, Henrico County, Virginia; Being All Of The 190.07-Acre Tract, Now Designated
 As Tract 6, All Of The 10.47-Acre Tract, Now Designated As Tract 6A, All Of The 108-Acre Tract
 Now Designated As Tract 6B, All Of The 2.26-Acre Tract, Now Designated As Tract 6C, And All Of
 0.67-Acre Tract, Now Designated As Tract 6D, All As Shown On Plat For Clayton M. Wall In M.B. 67-Pg. 74.H.C.C.C.O.

Legal References: M.B. 128-Pg. 553.H.C.C.C.O.; M.B. 730-Pg. 719.H.C.C.C.O.; D.B. 807-
 Pg. 381.H.C.C.C.O.; Instrument Number 020006735.H.C.C.C.O.; M.B. 28-Pg. 278.H.C.C.C.O.;
 And M.B. 86-Pg. 228.H.C.C.C.O.

Scale: T = 200'
 April 19, 2003

TERRY A. WALLER, L.L.S.
 Licensed Professional Land Surveyor



In the Clerk's Office of the Circuit Court for the County of
Henry, Virginia, this instrument is admitted to record
10:05 A.M. 7-6 1977 and with it
a certificate of survey is placed on file as shown.
Robert P. Crouch, Jr.

PLAT OF SURVEY
FOR
CLAYTON W. WALL
IRISWOOD DISTRICT HENRY COUNTY
MAY 23, 1977 VIRGINIA SCALE 1"=300'

S. M. BARBAR

74

178 STATE OF VIRGINIA,

COUNTY OF HENRY

TO-WIT:-

150-478

I, H. EARL BULLARD, a Notary Public in and for the County and State aforesaid, do certify that JOHN W. BOULDIN AND ALLINE S. BOULDIN, HIS WIFE, whose names are signed to the writing hereto annexed bearing date on the 5 day of SEPTEMBER, 1958, have this day acknowledged the same before me in my said county.

I further certify that my commission as Notary Public will expire on the 9 day of MARCH 1968

Given under my hand this 5 day of SEPTEMBER, 1958.

H. Earl Bullard
Notary Public within and for THE STATE of Virginia. AT LARGE

APPALACHIAN POWER CO. ROANOKE REAL ESTATE OFFICE
Checked By: [Signature] Re-Checked By: [Signature]
Date: 10-8-58

Notary Public within and for _____ County, Virginia.

Virginia:-

RECEIVED FOR RECORD

In Henry County Circuit Courts, Clerk's Office

In Henry County Circuit Court, Clerk's Office

Oct. 23 1958

Oct. 23 1958

This Agrmt. was this day received in this office and recorded in [Signature]

This Agrmt. was this day received in this office and upon the annexed certificate of acknowledgement

Book No. _____ Page _____

admitted to record at 5:00 o'clock P. M.

Teste: J. H. Matthews Clerk

Teste: J. H. Matthews Clerk

Agrmt. #1966

ART PRINTING CO. 1-27 5M RIGHT OF WAY EASEMENT Form No. R/E 103-R/E

Mr. CLAYTON W. WALL Eas. No. 11 R/W Map. No. 3780/85B

MARTINSVILLE, VA W. O. No. 15819068.17 Temp. Prop. No. 2

Job No. _____

RECEIVED OF APPALACHIAN POWER COMPANY, a Virginia corporation, the sum of

One Dollar (\$1.00) in consideration of which CLAYTON W. WALL AND

EUNICE B. WALL, HIS WIFE

hereby grant and convey unto said Appalachian Power Company, its successors and assigns, the right and easement to construct, operate and maintain or remove an electric power line, with all necessary poles, anchors, wires and fixtures and the right to permit attachments of others to said poles on and over our lands, with services and extensions therefrom, situate in the District of

LEATHER WOOD, County of HENRY, and State of VIRGINIA, and bounded:

On the North by the lands of COLEMAN LAWRENCE AND THE LANDS OF PERCY ROACH

On the East by the lands of COLEMAN LAWRENCE

On the South by the lands of GERALD FISHE

On the West by the lands of GERALD FISHE AND THE LAND OF PERCY ROACH

with the right of ingress and egress to and from and over said premises.

Together with the right to cut or trim any trees which may endanger the safety or interfere with the construction and use of said electric power line.

TO HAVE AND TO HOLD the same unto said Appalachian Power Company, its successors and assigns.

It is agreed that the foregoing is the entire contract between the parties hereto, and that this written agreement is complete in all its terms and provisions.

This agreement is dated the 1 day of OCTOBER, 1958;

WITNESS the following signatures and seals.

WITNESS:

Clayton W. Wall (SEAL)

Eunice B. Wall (SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

H. Earl Bullard
Fieldale, Va.

STATE OF VIRGINIA, CITY OF MARTINSVILLE

TO-WIT:-

I, H. EARL BULLARD, a Notary Public in and for the City and State aforesaid, do certify that CLAYTON W. WALL AND EUNICE B. WALL, HIS WIFE

whose names are signed to the writing hereto annexed bearing date on the 1 day of OCTOBER, 1958, have this day acknowledged the same before me in my said City.

I further certify that my commission as Notary Public will expire on the 9 day of MARCH 1959.

Given under my hand this 1 day of OCTOBER, 1958.

H. Earl Bullard Notary Public within and for THE STATE OF Virginia. AT LARGE

APPROPRIATE RECORD CO. RECEIVED FOR RECORD OFFICE Checked By Date 10-23-58

Notary Public within and for County, Virginia.

RECEIVED FOR RECORD

Virginia:-

In Henry County Circuit Courts, Clerk's Office Oct. 23, 1958 Agent was this day received in this office and admitted to record at 5.00 per page. Teste: John F. Matthews Clerk

In Henry County Circuit Court, Clerk's Office Oct. 23, 1958 This instrument was received in this office and upon the annexed acknowledgment admitted to record at 5.00 per page. Teste: John F. Matthews Clerk

APT PRINTING CO. 1-57 34 RIGHT OF WAY EASEMENT Form No. R/E 103-R/E.

Agrmt #1967

Mrs EDNA M. BENNETT (Name) Eas. No. 105 R/W Map. No. 3780/854 BASSETT, VA. (Address) W. O. No. 1581/9070.17 Temp. Prop. No. 3

RECEIVED OF APPALACHIAN POWER COMPANY, a Virginia corporation, the sum of One Dollar (\$1.00), in consideration of which EDNA M. BENNETT AND

J. W. BENNETT, HER HUSBAND

hereby grant and convey unto said Appalachian Power Company, its successors and assigns, the right and easement to construct, operate and maintain or remove an electric power line, with all necessary poles, anchors, wires and fixtures and the right to permit attachments of others to said poles on and over our lands, with services and extensions therefrom, situate in the District of REED CREEK, County of HENRY, and State of VIRGINIA, and bounded:

On the North by the lands of RICHARD YOUNG On the East by VIRGINIA STATE SECONDARY HIGHWAY NO. 606 On the South by the lands of BENFORD SAUL On the West by the lands of J. L. SMITH

with the right of ingress and egress to and from and over said premises. Together with the right to cut or trim any trees which may endanger the safety or interfere with the construction and use of said electric power line.

TO HAVE AND TO HOLD the same unto said Appalachian Power Company, its successors and assigns.

It is agreed that the foregoing is the entire contract between the parties hereto, and that this written agreement is complete in all its terms and provisions.

This agreement is dated the 8 day of OCTOBER, 1958;

WITNESS the following signatures and seals.

WITNESS:

H. Earl Bullard, Notary Public

Edna M. Bennett (SEAL) J. W. Bennett (SEAL) (SEAL) (SEAL) (SEAL)

GRW 100-PST-AP (Rev. 7-80) (R/E & R/W Use Only)

Eunice B. Wall, et al Eas. No. _____ R/W Map No. _____
 W.O. No. 797-6066 Prop. No. 41
 Line Axton-Jackson's Ferry

THIS AGREEMENT, made this 29 day of November, 19 83, by and
 between Eunice B. Wall, widow; Jimmy L. Wall and Carole W. Wall, his wife;
Betty R. Curry and James H. Curry, her husband; Tommy L. Wall and Mary W. Wall,
his wife; Henry C. Wall and Brenda E. Wall, his wife; and Brian Witt, Single
 herein called "Grantors," whether one or more persons, and APPALACHIAN POWER COMPANY, a Virginia
 corporation, herein called "Appalachian."

WITNESSETH:

That for and in consideration of the sum of Nine Thousand Dollars & ⁰⁰/₁₀₀ Dollars,
 and other valuable consideration, the receipt of which is hereby acknowledged, and the covenants and agreements
 hereinafter set forth, Grantors hereby grant, convey and warrant to Appalachian, a right of way easement for an
 electric transmission line on and across the following described lands of the Grantors situated in Martinsville
 District, County of Henry, State of Virginia,
 and bounded:

On the North by the lands of _____
 On the East by the lands of Westvaco Corp.
 On the South by the lands of _____
 On the West by the lands of Erma Wray Roach
 and along the centerline determined as hereinafter set forth.

The location of the said right of way easement is shown on
 print of Appalachian Power Company's Drawing No. Y-1586, dated
 April 5, 1983, attached hereto and entitled:

Proposed Transmission Line
 Across the Property of
 Eunice B. Wall, et al
 Martinsville District Henry Co., Va.

TOGETHER with the right to Appalachian to construct, reconstruct, operate, maintain, inspect, protect,
 repair, replace, renew, relocate, and remove poles, supported structures and towers, with crossarms, guys, anchors,
 grounding systems and fixtures, and string wires and cables, adding thereto from time to time, on and across said
 lands; the right to cut, trim and/or otherwise control and, at Appalachian's option, remove from said lands any trees,
 overhanging branches, brush, buildings, structures, or other obstructions within One Hundred (100)
 feet of such centerline, and any trees which may endanger the safety or interfere with the construction, operation or
 maintenance of said poles, supported structures, towers, crossarms, guys, anchors, grounding systems, fixtures,
 wires and cables of said electric transmission line; and the right of ingress and egress in and over existing or future
 roads and lanes and other reasonable routes on said lands; together with the rights, easements, privileges and appur-
 tenances in or to said lands which may be required for the full enjoyment of the rights herein granted.

It is understood and agreed between the parties hereto that:

1. The Grantors reserve the right to cultivate, pasture or otherwise use said lands in any way not inconsistent with
 the rights herein granted; however, no building or other structure shall be placed by the Grantors within One
Hundred (100) feet of said centerline;
2. Said centerline shall be as selected and laid out by Appalachian and its location shall be finally evidenced by a line
 connecting the centerpoints of the poles, supported structures and towers of said electric transmission line when
 constructed on said lands, if any, and on adjoining premises;

E A S E M E N T

1986

KNOW ALL MEN BY THESE PRESENTS:

That, for valuable consideration hereby acknowledged, the undersigned hereby grants and conveys unto Central Telephone Company of Virginia, its successors and assigns forever, a right of way easement to construct, install, operate, maintain, replace and remove a communication system consisting of such towers, poles, fixtures, guys, anchors, wires, cables, buried cables, buried wires, posts, terminals, location markers, conduits, manholes and other appurtenances, as the grantee may, from time to time, require upon, under, across and over certain land owned by the grantor or in which the grantor has an interest, situated in the District of GREENSBORO, County of Henry, State of Virginia, and more particularly described as follows, to wit: (Give width and location of easement strip.)

Property located on west side of State Route 654 and is feet of the intersection of state Route 654 and . Property is bound by State Route 654, on the by property of WALTON on the by property of G. F. FITE and on the by . Right-of-way shall be a 30 foot strip varying from 0 to 300 feet from the property line with State Route 654. Right-of-way shall extend from west to property lines.

and upon, under, along and over the roads, streets and highways adjoining the said land.

The easement hereby granted includes the right of ingress and egress over, under and across the lands of the grantor for the purpose of exercising the rights herein granted, the right to open and close fences, the right to trim, top, retrim and retop, or cut any trees or brush along said right of way now or at any time so as to give and maintain a clearance of at least 10 feet for all wires and facilities, and the right to carry in said system the wires, cables, circuits and appurtenances of any other person or communication or electric company.

Post Office Address of Grantor: 115 GILSON ST. GREENSBORO, VIRGINIA

IN WITNESS WHEREOF, we have set our hands and seals this 19th day of September, 19 86.

IN THE PRESENCE OF:

Witness Grantor
x Emmanuel B. Wall (SEAL)
(SEAL)
(SEAL)

ACKNOWLEDGMENT OF GRANTOR

State of Virginia, of Henry, to wit:

I, Emmanuel B. Wall, a NATURAL PUBLIC for the State of Virginia aforesaid, in the State of Virginia, do certify that Emmanuel B. Wall whose name is signed to the writing above bearing date on the 19th day of September, 19 86, has acknowledged the same before me in my presence aforesaid.

Given under my hand this 19th day of September, 19 86.

Emmanuel B. Wall
Notary Public

My Commission expires January 14, 19 86.

Best Copy Available

ORIGINAL RETURNED
L.P.C.N. RECORDATION

525
257

Exempted from recordation taxes
under Sections 58.1-811(A) (3),
58.1-811(C) (4) and 25-249.

003489

THIS DEED, Made this 4th day of March, 1988,
by and between Dempsey Albert GRAY and Rita GRAY, His Wife

James D. WALLS, Single

Wayland LOFTEN and Betty H. LOFTEN, His Wife

Eunice B. WALL, Widow

Elmore D. MINNICK and Glenda M. MINNICK, His Wife

Philip Dean PRILLAMAN AND Rebecca M. PRILLAMAN, His Wife

Tim L. LUTHER and Cherie P. LUTHER, His Wife

David PRILLAMAN, Single

C. E. LEWIS and Peggy A. LEWIS, His Wife

hereinafter designated as grantors, and the COMMONWEALTH OF VIRGINIA, Grantee;

WITNESSETH: In consideration of the benefits accruing or to accrue to the
said grantors, by reason of the location and construction, or other improvement
of part of Route No. 654, between Route 736 and
Dead End (0.75 Mi.), along, through, or over the lands of the grantors,
and for further consideration paid to the grantors, receipt of which is hereby
acknowledged, the said grantors hereby grant and convey unto the said grantee
with general warranty, each as to the land owned by him hereby conveyed, a strip

525-252

RW-72 (Page 2)
Revised 2-86

or parcel of land over the lands of the grantors needed for the location and construction or other improvement of said road, so as to make a total width of right of way of 50 feet, same being measured 25 feet either side of center of road to be constructed or reconstructed, together with the temporary right and easement to use such additional areas as located and staked on the ground for cut and/or fill slopes as being required for the proper execution of the work. Said temporary easement will terminate at such time as the construction or improvement of the aforesaid route is completed. Said locations and stakes having been shown to and approved by the grantors at or before the execution and delivery of these presents, all the said strip or parcel of land being in Martinsville Magisterial District of Henry County, Virginia.

Together with the right and easement to construct, improve and maintain any drain ditches or other drainage facilities that may be needed for the proper and adequate drainage of said Route.

AND FURTHER WITNESSETH: That the said grantors, for the considerations stated above, also covenant and agree, upon demand of any public utility company or corporation having its facilities in, over or across the lands herein conveyed, that they, the said grantors will give, grant and convey unto such public utility company or corporation an easement in, over and across the lands of the grantors lying adjacent to the lands herein conveyed for the relocation, construction, operation and maintenance of said facilities.

The grantors by the execution of this instrument acknowledge that the plans for the aforesaid route as they affect their respective properties have been fully explained to them or their authorized representatives.

The said grantors covenant that they have the right to convey the said land to the grantee; that they have done no act to encumber the said land; that the grantee shall have quiet possession of the land, free from all encumbrances, and that they will execute such further assurance of the said land as may be requisite.

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RW-72 (Page 3)
Revised 2-86

The said grantors covenant and agree for themselves, their heirs, and assigns and successors, that they have been made aware of their right to receive just compensation for the land herein conveyed, and that the considerations hereinabove mentioned and paid to them shall be in lieu of any and all claims to compensation and damages by reason of the location, construction and maintenance of said road; including such drainage facilities as may be necessary.

WITNESS the following signatures and seals:

<u>Dempsey Albert May</u>	(SEAL)	_____	(SEAL)
<u>Kita May</u>	(SEAL)	_____	(SEAL)
<u>James D. Wall</u>	(SEAL)	_____	(SEAL)
<u>Boh H. Loftis</u>	(SEAL)	_____	(SEAL)
<u>Wayland Loftis</u>	(SEAL)	_____	(SEAL)
<u>Everice B. Wall</u>	(SEAL)	_____	(SEAL)
<u>Erma D. Minnick</u>	(SEAL)	_____	(SEAL)
<u>Glenda M. Minnick</u>	(SEAL)	_____	(SEAL)
<u>Philip Dean Pilla</u>	(SEAL)	_____	(SEAL)
<u>Rebecca M. Pilla</u>	(SEAL)	_____	(SEAL)
<u>Philip D. Pilla</u>	(SEAL)	_____	(SEAL)
<u>Jan Pilla</u>	(SEAL)	_____	(SEAL)
<u>Jim D. Pilla</u>	(SEAL)	_____	(SEAL)
<u>Cherie D. Pilla</u>	(SEAL)	_____	(SEAL)
<u>David Pilla</u>	(SEAL)	_____	(SEAL)
<u>G. E. Lewis</u>	(SEAL)	_____	(SEAL)
<u>Larry B. Lewis</u>	(SEAL)	_____	(SEAL)
_____	(SEAL)	_____	(SEAL)
_____	(SEAL)	_____	(SEAL)
_____	(SEAL)	_____	(SEAL)
_____	(SEAL)	_____	(SEAL)

525-254

RW-201 (Page 4)
Revised 2-86

STATE OF VIRGINIA

County of Henry, To-wit:

I, E. M. McDaniel, a Notary Public in and for the State of Virginia, at Large, do certify that _____

Dempsey Albert GRAY

Rita GRAY

James D. WALLS

Wayland LOFTEN

Betty H. LOFTEN

Eunice B. WALL

Elmore D. MINNICK

Glenda M. MINNICK

Philip Dean PRILLAMAN

Rebecca M. PRILLAMAN

Tim L. LUTHER

Cherie P. LUTHER

David PRILLAMAN

C. E. LEWIS

Peggy A. LEWIS

whose names are signed to the foregoing and annexed writing, bearing date on the 4th day of March, 19 88, have ~~acknowledged~~ acknowledged the same before me in the County aforesaid.

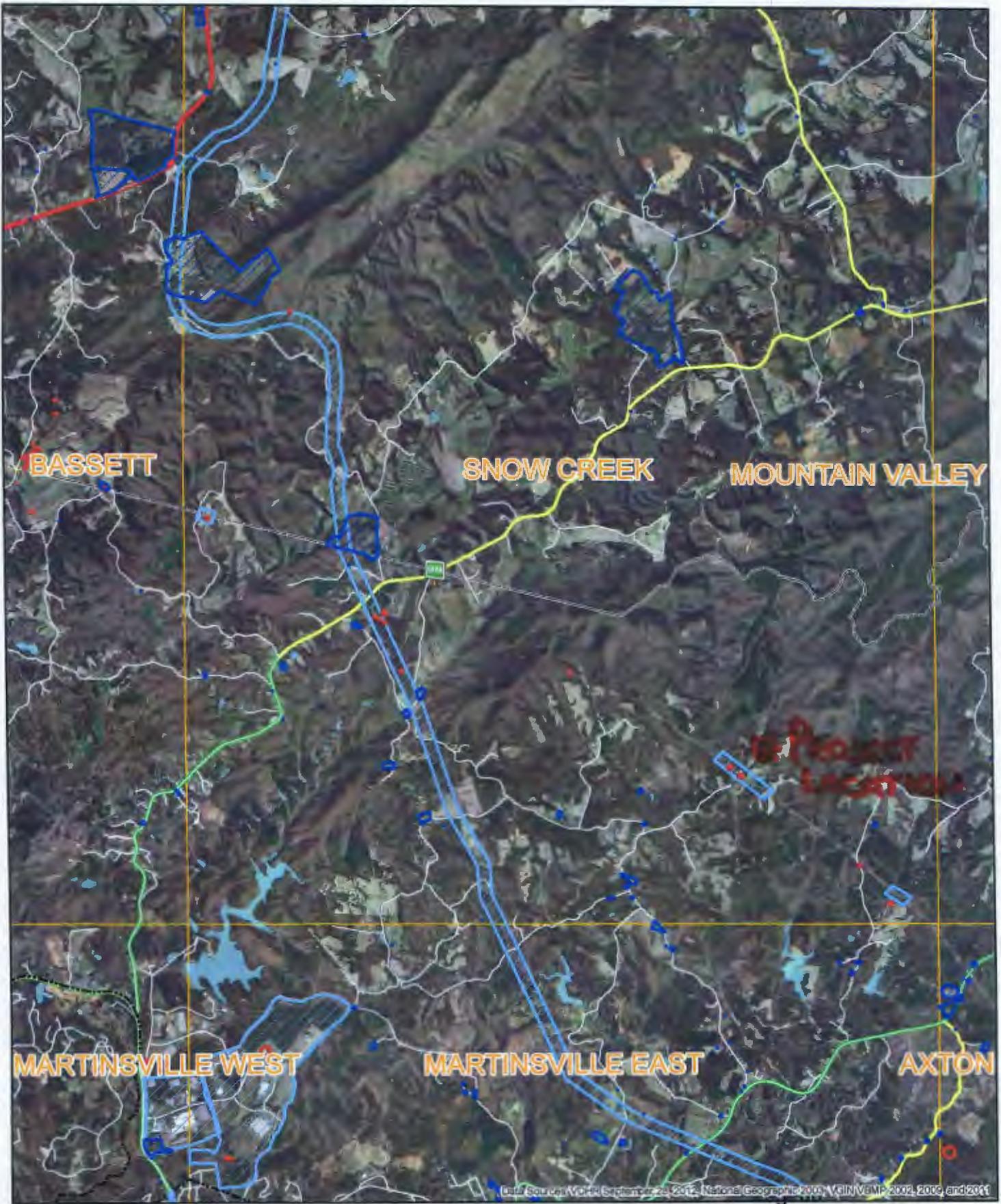
Given under my hand this 3rd day of July, 19 90.

My Commission expires Feb. 3, 1991.

VIRGINIA: In the Clerk's Office of the Circuit Court of Henry County, July 24, 19 90. This deed was this day received in said office, and, upon the certificate of acknowledgment... thereunto annexed, admitted to record, at 12:45 o'clock P.M., after payment of \$ 0.00 tax imposed by Sec. 17-1 of the Code of Virginia. Janita J. Stewart, Clerk
Tax \$ 0.00 Transfer Fee \$ 0.00

E. M. McDaniel
Notary Public

ATTACHMENT 2.0 – DSS Screening Information



Your Project
 City, State
 What Quadrangle
 Owner
 Date



1 in = 1.152 miles

-  Architectural Resources 
-  Archaeological Resources 
-  Phase I CRM Survey Areas 



Map: Sources: VCMR September 20, 2012; National Geographic 2005; VGIN VAMP 2007, 2008, and 2011

THUNDERBIRD ARCHEOLOGICAL
ASSOCIATES, INCORPORATED

ARCHEOLOGY, CULTURAL RESOURCE MANAGEMENT

ROUTE ONE, BOX 432
FRONT ROYAL, VIRGINIA 22630

(703) 635-3860

VIRGINIA RESEARCH CENTER
FOR ARCHAEOLOGY

A PRELIMINARY CULTURAL RESOURCES RECONNAISSANCE
OF THE
PROPOSED APPALACHIAN POWER COMPANY 765KV
AXTON TO JACKSONS FERRY TRANSMISSION LINE



Prepared by:
Thunderbird Archeological Associates
William M. Gardner,
Principal Investigator

January, 1983

City/County: Henry
VDHR Site Number: 44HR0191
Site Name:
Temporary Designation: Wall Cem 1

Other VDHR Number:

DHR ID#: 44HR0191

CULTURAL/TEMPORAL AFFILIATION

Cultural Designation
Euro-American

Temporal Designation
Historic/Unknown

Site Class: Terrestrial, open air

THEMATIC CONTEXTS/SITE FUNCTIONS

Sequence Number: 1

Category for thematic context:
Funerary

Example: Cemetery

Comments/Remarks:

poissible Cemetery

Specialized Contexts:

USGS Quadrangle(s): SNOW CREEK

Loran:

Restrict UTM Data?

Center UTM (for less than 10 acres): 17/4069898/608660

Boundary UTMs (for 10 acres or more):

Physiographic Province: Piedmont

Drainage: Atlantic Ocean

Landform: hillock

Aspect: Facing southeast

Elevation: 900.00 Slope: 0-2%

Site Soils: silty clay

Adjacent Soils:

Nearest Water Source: Leatherwood Creek

Distance: 400

INDIVIDUAL/ORGANIZATION/AGENCY INFORMATION

Individual Category Codes:

Owner of property

Survey Description:

Site 44HRXXX is located on a bare pasture hilltop between two spurs of Leatherwood Creek in Henry County.

Archaeological testing was required to verify the presence of a prehistoric cemetery along the proposed pipeline route. Stones marking several graves were reportedly removed by the landowner 20 years previously. No physical evidence of the cemetery remained to the present (FIG X7).

A series of backhoe trenches were excavated to undisturbed soils in an attempt to reveal any grave shafts (FIG X7A). Three trenches were placed across the hilltop where the alleged cemetery was. T1 was 11x42 feet, T2 was 11x54 feet, and T3 was 9x32 feet.

Several features were encountered indicating substantial mechanical alteration of the hilltop, such as a bulldozed tree and a large cut out feature. These were explained by the landowner as stump clearing and tilling, which were done in conjunction with the removal of the grave markers. A series of fenceposts were encountered and a single 4 x 8 foot rectangular feature that could possibly be a 20th century grave feature. (FIG X8 plan view) No artifacts were recovered.

The shape of the feature is too large and squared off to be a hand dug grave. A test hole excavated into the wall of the feature showed that it continues vertically at least a foot below the depth at which it was encountered, at one foot below ground surface (FIG X9). The feature fill is not consistent with a hand dug feature either. The matrix is a consistently pulverized mica schist which, while friable, should have appeared as chunks in a hand dug feature.

Without possible exhumation, absolute verification of the nature of the feature is impossible. Its size and shape are consistent with a grave. Given that, and that a cemetery was reported to exist on the landform, make disputing the feature problematic, other mechanical disturbance notwithstanding.

Additional testing and burial relocation would need to be undertaken if the proposed route is to be used. This site should be avoided.

CURRENT LAND USE**CURRENT LAND USE # 1**

Land Use: Landscape

Dates of Use: 2003/05/99

Example: Pasture

Comments/Remarks:

center of site is 45 feet north of 765 kv electric ROW

SPECIMENS, FIELDNOTES, DEPOSITORIES

Specimens Obtained?

Specimens Depository:

Assemblage Description:

Specimens Reported? No

Assemblage description—reported:

VIRGINIA RESEARCH CENTER FOR ARCHAEOLOGY
SITE SURVEY FORM

Name of site: Apco 15

Site number: 44H115

Type of site: base camp(?)

Cultural affiliation: prehistoric

Map reference: Snow Creek 7.5' USGS quad 1964

Latitude 0 ' "north. Longitude 0 ' "west.
U.T.M. Zone 17 Easting 608,510 Northing 4070,000
(or distance from printed edge of map: bottom edge _____ : right edge _____)

Owner/address:

Tenant/address:

Attitude toward investigation:

Informant/address:

Surveyed by: Thunderbird Archeological Associates

Date: Sept/Oct 1982

General surroundings: The site is in a relatively broad valley and upland near the junction of the West Fork of Leatherwood Creek and an unnamed tributary. Blocky quartz occurs on the uplands and in the bottom of the unnamed stream. The artifacts found all came from the west side of the West Fork of Leatherwood in the bottom.

Nearest water: nature, direction and distance:

Dimension of site:

Description: depth, soil, collecting conditions: cultivated field with fair surface visibility--site is in floodplain so presumably there is some depth to the soil

Specimens collected: kinds, quantities, materials: fire cracked rock; 1 small chert or silicified slate drill or contracting stem point; 1 black chert lamellar blade tool; 1 greenish chert or silicified slate flake; 1 rhyolite flake; 1 utilized jasperoid flake; 1 quartz flake; 1 quartz flake with cobble cortex--all debitage is 2 cm or less.

Specimens reported, owners, address: Thunderbird Archeological Associates
Front Royal, Va.

Other documentation: reports, historical data: "A Preliminary Cultural Resources Reconnaissance of the Proposed Appalachian Power Co. 765KV Axton to Jacksons Ferry Transmission Line" - TAA, Inc., W. M. Gardner, Principal Investigator, Jan 1983

Condition: erosion, cultivation, excavation, construction:

Recommendations: further work is recommended if site is to be impacted.

Photo:

Recorded by: Joan Walker/William Gardner
Thunderbird Archeological Associates

Map:

Date: Jan 1983

(Use reverse side of sheet and additional pages for sketches of site and artifacts)

County Henry Co
Map Sheet Snow Creek Va
Site Number 44H115

identities of the residents can be established (although this may prove difficult or impossible if the individuals involved were tenants). This should be followed by some test excavations to determine if there is the potential for a greater artifact yield and greater time depth.

44Hr115 (Snow Creek Quad/APCO map sheet 21)

This site is located in Henry County in a large area selected for investigation since it lay within a relatively broad valley and adjacent upland area near the junction of the West Fork of Leatherwood Creek and an unnamed tributary (Figure 14). The general area was afforded a high probability ranking. Visibility in the area ranged from poor to good. In areas of poor visibility, shovel tests and trowel scraping were employed. Surprisingly, only one site was found. The first area checked was the saddle and flat to the southeast of the unnamed stream. Blocky quartz was noted but no artifacts were found. In the bottom of the unnamed stream, quartz was again noted but no artifacts were recovered. No artifacts were found on the east side of the West Fork.

As noted, a single site was found. This site was on the west side of the West Fork of Leatherwood Creek in the bottomland of the creek. The artifacts defining the site were scattered in an area approximately 300 by 40 feet with the long axis following the creek line. A half dozen fire cracked rock were observed. Material collected included:

- 1 small green chert or silicified slate biface with either a contracting stem or a drill bit (Plate 2, bottom row)
- 1 black chert lamellar blade with utilization modification along portions of one edge (Plate 2, bottom row)
- 1 greenish chert or silicified slate flake
- 1 rhyolite flake
- 1 utilized jasperoid flake
- 1 quartz flake
- 1 quartz flake with cobble cortex

The debitage is all small, all 2 cm or less, except for the quartz and black chert tool. The quartz flake is as much of a chunk as it is a flake and considering the near ubiquity of quartz in the area, its larger size is to be expected as no curation of the material would be required. The lamellar chert flake is 3.5 cm long. The so-called green chert material bears a strong macro-scopic resemblance to material referred to in the Outer Piedmont of North Carolina as silicified slate. The black chert piece does not appear to be derived from the Ridge and Valley and is quite similar in appearance to the chert collected at APCO where cortex was noted on some of the flakes. The utilized jasperoid flake is not dissimilar in general appearance from jasper originating in the Ridge and Valley. Temporal placement is unknown but the variety of material (based on our impressions from APCO and other areas) suggests a Late Woodland time period or multiple components.

We are ambivalent about further work at this location. A single test pit showed all the material was confined to the plow zone. The artifacts were not particularly abundant but were diverse enough to suggest, perhaps, the presence of a small base camp. Further work could clarify the function of this site and perhaps provide firmer data concerning chronology. We thus lean toward doing at least a Phase II at this location, particularly if there is any danger the site would be impacted by the presence of a tower. The nature of the investigation should consist of a controlled surface

collection with some test pitting with the location of the excavation units based on the results of the surface collection. This type of approach should gather sufficient information from the site to answer a number of questions and would clear it (in the absence of any buried cultural features or deposits) for impact.

44Hr116 (Snow Creek Quad/APCO map sheet 22)

The location of this site was selected for investigation because it lay in the floodplain of Peters Branch, a tributary of the West Branch of Leatherwood Creek and the Smith River (Figure 14). The floodplain on the maps appeared to be relatively narrow so it was afforded only a medium probability. In the field, the floodplain in the right-of-way turned out to be narrow, swampy and uninhabitable. Approximately 200 feet downstream where the floodplain broadens out, just out of the impact zone, a cursory survey in an old corn field noted some fire cracked rock and a single small chalcedony flake. A reconnaissance of the flat to the immediate southeast failed to recover any artifacts. It would thus seem that any sites in this immediate area are confined to the broader part of the floodplain of Peters Branch and not in the proposed impact area. No further work at this location is necessary.

44Hr117 (Axton Quad/APCO map sheet 24)

This "site", consisting of a single artifact find, is located in Henry County in the first flat on the northwest side of the intermittent stream which forms one of the borders of Apco-2 (Figure 15). The area was selected for investigation because of its level, topography, and position vis a vis an intermittent stream and Leatherwood Creek. The location was placed in the medium to high category. The area was heavily vegetated but visibility was still fair with scattered pockets of surface exposure. The reconnaissance was augmented through scraping away the leaf litter and troweling within the soil. The soil was quite old with all younger soils having been eroded away.

As noted, a single artifact (Plate 3, bottom row) was recovered. This biface, perhaps a projectile point or a knife, is made of quartz. Typologically it bears closest resemblance to a Middle Archaic Guilford (Coe 1964) variant. This location is at best a transient hunting station.

Further work at this location is not recommended. This is based on the low artifact yield and the deflated nature of the soil.

44Hr118 (Axton Quad/APCO map sheet 22)

This site is located along a ridge and saddle in Henry County at an elevation of approximately 840 feet above mean sea level (Figure 15). It is the easternmost site discovered and to the east faces the floodplain of Leatherwood Creek and is bordered on the west by an unnamed tributary. A spring head is located in the approximate middle of the site, on the western portion of the saddle area. The site is about 40 feet above the Leatherwood Creek bottom with a relatively sharp escarpment forming the boundary between the floodplain and uplands. Investigations in this floodplain show it to have been severely scoured. Stream bank profiles show continuous gleyed strata indicating poor drainage over the years during which the profile formed. The scoured nature of the bottom and its poor drainage are probably the reasons the site is on the adjacent ridge. Leatherwood Creek is a tributary of the Dan River.

ATTACHMENT 3.0 – Adjacent Property Owners:

PDRJ LLC.
PO BOX 3282
Martinsville, VA 24112

James D. Walls
971 Ravenscroft Road
Martinsville, VA 24112

James Ray and Magdeline Roach Wilson and M.W. Arliss
8106 Sidlaw Hills
Chesterfield, VA 23838

New Forestry, LLC.
3715 Northside Parkway
Building 200 Suite 500
Atlanta, GA 30327

William L. Belcher
13757 Franklin Turnpike
Dry Fork, VA 24549

Fred T. Martin
775 Mountain Mist Drive
Martinsville, VA 24112

ATTACHMENT (.0 - B: K GDFC >97 HF9J -9K 'D57?5; 9



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ecological Services
6669 Short Lane
Gloucester, Virginia 23061

Date:

Online Project Review Certification Letter

Project Name:

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Field Office online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the referenced project in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. These conclusions resulted in “no effect” and/or “not likely to adversely affect” determinations for listed species and critical habitat and/or “no Eagle Act permit required” determinations for eagles regarding potential effects of your proposed project. We certify that the use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” and “not likely to adversely affect” determinations for listed species and critical habitat and “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of listed species, critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for one year.

Applicant

Page 2

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Kimberly Smith of this office at (804) 693-6694, extension 124.

Sincerely,

/s/ Cynthia A. Schulz

Cindy Schulz
Supervisor
Virginia Field Office

Enclosures - project review package

Species Conclusions Table

Project Name: Ravenscroft Stream Mitigation Bank

Date: 7/11/2013

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
James spiny mussel (<i>Pleurobema collina</i>)	Species not present	No effect	Identified in DNH search to county level for Henry County <i>Not observed during multiple site visits. USFWS fact sheet states that species only exists in upper James Basin. Degraded condition of streams targeted for restoration and enhancement not suitable habitat given presence of silts and fines and lack of variety of flow regimes. Upstream preservation reaches may provide suitable habitat but species no longer present in Dan River watershed.</i>
Roanoke logperch (<i>Percina rex</i>)	Potential habitat present, species not present	Not likely to adversely effect	Identified in VAFWIS search w/n three mile project radius. VAFWIS map of "Tier Reaches Group West Fork Leatherwood Creek (30101031) shows data observation site overlapping the southernmost portion of the project site Identified in DNH search to county level for Henry County <i>Not observed during multiple site visits. Landowner stated via word of mouth that a downstream landowner recently installed a culvert that has blocked fish migration to the project site. USFWS fact sheet states species prefer pools and spawn in deep runs and prefer silt free substrate. Therefore streams targeted for restoration and enhancement not suitable habitat due to their degraded condition. Upstream preservation reaches may provide suitable habitat.</i>
Smooth coneflower (<i>Echinacea laevigata</i>)	No suitable habitat present	No effect	Not identified in DNH and VAFWIS searches <i>Not observed during multiple site visits. USFWS fact sheet habitat description details suitable form if disturbance required to maintain populations. Upstream preservation reaches are semi-mature woods and do not provide suitable habitat. Pastures are regularly mowed and grazed and therefore do not have a suitable disturbance regime to support occurrence of the species.</i>
Bald Eagle	unlikely to disturb nesting bald eagles	No Eagle Act permit needed	
Bald Eagle	does not intersect with eagle concentration area	No effect	



IPaC - Information, Planning, and Conservation System

Environmental Conservation Online System

(<http://www.fws.gov>)

IPaC Home Page (/ipac)

Initial Project Scoping (/ipac/wizard/chooseLocation!prepare.action)

Project Builder ()

FAQs (/ipac/faqs.jsp)

[Step 1 \(/ipac/wizard/chooseLocation!prepare.action\)](#)

[Step 2 \(/ipac/wizard/chooseActivities!prepare.action\)](#)

Activities

Step 3

Trust resources list

Step 4

Conservation measures

Natural Resources of Concern

An online Endangered Species Act species list **IS** available on this page for your project area, represented by the office(s) listed below.

The Endangered Species Act species list below is for planning purposes only – it is not an official species list.

To request an official species list, click the **Request an Official Species list** link to the right and follow the instructions.

VIRGINIA ECOLOGICAL SERVICES FIELD OFFICE
6669 SHORT LANE
GLOUCESTER, VA 23061
(804) 693-6694
<http://www.fws.gov/northeast/virginiafield/> (<http://www.fws.gov/northeast/virginiafield/>)

Project Location Map:



Note: The map reflects the map extent and map layers selected on Step 1 Location page. To change what appears on this map, return to the Location page and adjust the map extent or map layers.

Project Location Measurements:

Area : 299.0 ac.
Length : 3.3 mi.

Project Counties:

Henry, VA

Project type: Stream / Waterbody / Canals / Levees / Dikes

Endangered Species Act Species List ([USFWS Endangered Species Program \(http://www.fws.gov\)](http://www.fws.gov))

There are a total of 3 threatened, endangered, or candidate species, and/or designated critical habitat on your species list. Species on this list are the could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause d the designated FWS office if you have questions.

Species that may be affected by your project:

Clams	Status	Species Profile
James spiny mussel (<i>Pleurobema collina</i>) Population: Entire	Endangered	species info (/ipac/wizard/speciesInformation!showSpeciesInformation.action?spcode=F025)
Fishes		
Roanoke logperch (<i>Percina rex</i>) Population: Entire	Endangered	species info (/ipac/wizard/speciesInformation!showSpeciesInformation.action?spcode=E01G)
Flowering Plants		
Smooth coneflower (<i>Echinacea laevigata</i>)	Endangered	species info (http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q293)

protection under the [Bald and Golden Eagle Protection Act \(http://www.fws.gov/midwest/eagle/protect/laws.html\)](http://www.fws.gov/midwest/eagle/protect/laws.html) (16 U.S.C. 668) and [Concern \(2008\) \(http://library.fws.gov/Bird_Publications/BCC2008.pdf\)](http://library.fws.gov/Bird_Publications/BCC2008.pdf) report identifies species, subspecies, and populations of additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

NWI Wetlands ([USFWS National Wetlands Inventory \(http://www.fws.gov/wetlands/\)](http://www.fws.gov/wetlands/)).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the National Wetlands Inventory (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may result in project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside your project area). It is helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponent requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District \(http://www.usace.army.mil/RegulatoryProgramandPermits.aspx\)](#).

The following wetlands intersect your project area:

Wetland Types	NWI Classification Code	Approximate Acres
Freshwater Forested/Shrub Wetland	PFO1A (http://137.227.242.85/Data/interpreters/wetlands.aspx?CodeURL=PFO1A)	1.549817

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Last updated: March 1, 2013

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Natural Heritage Resources

Your Criteria

County: Henry

Search Run: 2/3/2013 20:13:41 PM

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

Henry

BIVALVIA (MUSSELS)

Green Floater

James Spiny mussel

EPHEMEROPTERA (MAYFLIES)

Berner's Ephemerella Mayfly

FISH

Roanoke Logperch

TERRESTRIAL NATURAL COMMUNITY

Central Appalachian / Piedmont Basic Mesic Forest (Twinleaf - Blue Cohosh Type)

Northern Coastal Plain / Piedmont Oak - Beech / Heath Forest

VASCULAR PLANTS

Carolina alumroot

Little-leaf sensitive-brier

Downy Phlox

Sweet azalea

Mountain Camellia

Natural Heritage Resources

Your Criteria

Taxonomic Group: Select All

Physiographic Province: Southern Piedmont

Watershed: 03010103 - Upper Dan River

Search Run: 2/3/2013 13:25:28 PM

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

Southern Piedmont

Upper Dan

BIVALVIA (MUSSELS)

Green Floater

James Spiny mussel

EPHEMEROPTERA (MAYFLIES)

Berner's Ephemerella Mayfly

FISH

Snail Bullhead

Speckled Killifish

Orangefin Madtom

Roanoke Logperch

Rustyside Sucker

REPTILES

Bog Turtle

TERRESTRIAL NATURAL COMMUNITY

Central Appalachian / Piedmont Basic Mesic Forest (Twinleaf - Blue Cohosh Type)

Northern Coastal Plain / Piedmont Oak - Beech / Heath Forest

Southern Piedmont Mafic / Calcareous Barren

Inner Piedmont / Lower Blue Ridge Basic Mesic Forest

VASCULAR PLANTS

Bradley's Spleenwort

American bluehearts

Sweet-shrub

Small-anthered Bittercress

Carolina alumroot

Black-footed quillwort

Piedmont Barbara's-buttons

Little-leaf sensitive-brier

Downy Phlox

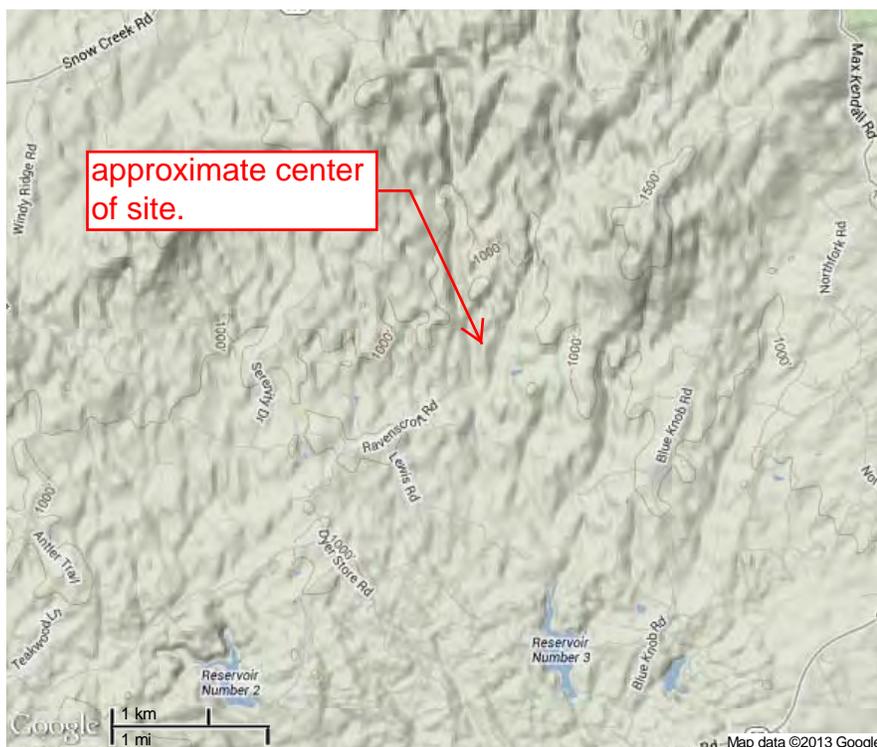
Spiral Pondweed

Sweet azalea

Southeastern stiff goldenrod

Mountain Camellia

Buffalo Clover



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Help CCB by Reporting Eagle Nest Locations

Despite our best efforts, an unknown number of eagle nests go unrecorded each year. This is particularly true in the Piedmont and mountains of Virginia where the survey does not cover. We believe that the public knows of many nests that are unknown to us. All active or recently active nests known to CCB (surveyed in last year's Annual Bald Eagle Survey plus reported with confirmed location) are presented in the eagle nest locator. Please view nests in your local area and report nests known to you that do not appear. Visit our Report a Nest page for instructions. Thanks for your help!

Annual Survey

The data contained in the VaEagles Nest Locator comes directly from Virginia's annual bald eagle survey. Breeding eagles have been surveyed annually in the lower Chesapeake Bay since 1956. The 2012 survey represents the 57th consecutive survey. Each year CCB biologists fly a nest survey in February and March to map eagle nests and to determine their activity status. This survey is followed in late April and May by a productivity survey where chicks are counted in each nest. The survey covers all tributaries of the lower Chesapeake, as well as, other prominent bodies of water and requires more than 100 hours of flight time in a high-wing Cessna. Biologists survey all known nest structures to determine their activity status and search for newly established nests. During the 2011 breeding season, CCB surveyed more than 1000 nest structures and documented more than 730 breeding pairs that produced more than 980 chicks.

Regulatory Contacts

Bald Eagles are sensitive to human disturbance. Since the 1970s nest sites have been managed using a combination of spatial buffers and time-of-year restrictions. Human activities that are

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VaFWIS Search Report Compiled on 7/3/2013, 3:02:09 PM

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Observations reported or potential habitat occurs within a **3 mile radius around point 36,46,33.5 -79,46,58.8** in **067 Franklin County, 089 Henry County, VA**

[View Map of Site Location](#)

400 Known or Likely Species ordered by Status Concern for Conservation (displaying first 20) (18 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name
010214	FESE	I	Logperch, Roanoke	Percina rex
040096	ST	I	Falcon, peregrine	Falco peregrinus
040129	ST	I	Sandpiper, upland	Bartramia longicauda
040293	ST	I	Shrike, loggerhead	Lanius ludovicianus
010127	FSST	II	Madtom, orangefin	Noturus gilberti
060173	FSST	II	Pigtoe, Atlantic	Fusconaia masoni
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans
040093	FS	II	Eagle, bald	Haliaeetus leucocephalus
010110	FS	III	Jumrock, bigeye	Moxostoma ariommum
030012	CC	IV	Rattlesnake, timber	Crotalus horridus
040225		I	Sapsucker, yellow-bellied	Sphyrapicus varius
040319		I	Warbler, black-throated green	Dendroica virens
010174		II	Bass, Roanoke	Ambloplites cavifrons
010432		II	Madtom, spotted-margin	Noturus insignis ssp 1
040052		II	Duck, American black	Anas rubripes
040105		II	Rail, king	Rallus elegans
040320		II	Warbler, cerulean	Dendroica cerulea
040266		II	Wren, winter	Troglodytes troglodytes
010197		III	Darter, wounded	Etheostoma vulneratum
030068		III	Turtle, eastern box	Terrapene carolina carolina

To view [All 400 species](#) [View 400](#)

* FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; FS=Federal Species of Concern; CC=Collection Concern

** I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need

Anadromous Fish Use Streams

N/A

Impediments to Fish Passage

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species (8 Reaches) [View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species](#)

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status, Tier**, Common & Scientific Name					
Beaver Creek (30101031)		010432		II	Madtom, spotted-margin	Noturus insignis ssp 1	Yes
(30101031)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes
Beaver Creek (30101031)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes
		010432		II	Madtom, spotted-margin	Noturus insignis ssp 1	
Leatherwood Creek (30101031)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes
West Fork Leatherwood Creek (30101031)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes
West Fork Leatherwood Creek (30101032)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes
Wet Branch (30101031)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes
Wet Branch (30101032)	FESE	010214	FESE	I	Logperch, Roanoke	Percina rex	Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (2 records) [View Map of All Query Results](#)
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
32021	Martinsville East, NW	2		IV	Yes
32036	Snow Creek, SE	51		IV	Yes

Public Holdings: (1 names)

Name	Agency	Level
Turkeycock Mountain Wildlife Management Area	Va DGIF	

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
067	Franklin	377	FESE	I
089	Henry	329	FESE	I

USGS 7.5' Quadrangles:

Martinsville East
Snow Creek
Axton
Mtn. Valley

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
RD24	Smith River-Beaver Creek	54	FESE	I
RD27	Upper Leatherwood Creek	52	FESE	I
RD28	West Fork Leatherwood Creek-Peters Branch	52	FESE	I
RU33	Snow Creek-Crab Creek	51	FESE	I

Compiled on 7/3/2013, 3:02:09 PM V470028.0 report=V searchType=R dist=4827 pos=36,46,33.5,-79,46,58.8

- | Wednesday, July 03, 2013 3:05:50 PM | [DGIF](#) | [Credits](#) | [Disclaimer](#) | Please view our [privacy policy](#) |
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**Tier Reaches Group
West Fork Leatherwood
Creek (30101031)**

36,46,33.5 -79,46,58.8
is the Search Point

Display Item Location is
at center not at map center

Show Position Rings

Yes No
1 mile and 1/4 mile at the
Search Point

Show Search Area

Yes No
3 Search distance miles
radius

Search Point is at
map center

Base Map Choices

Topography

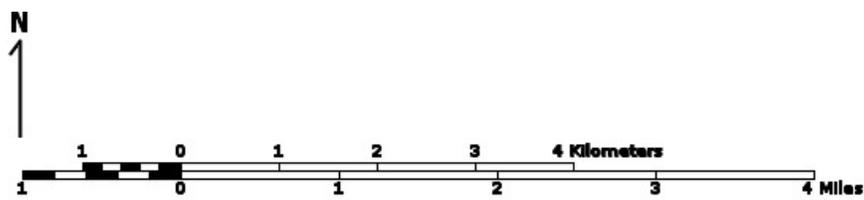
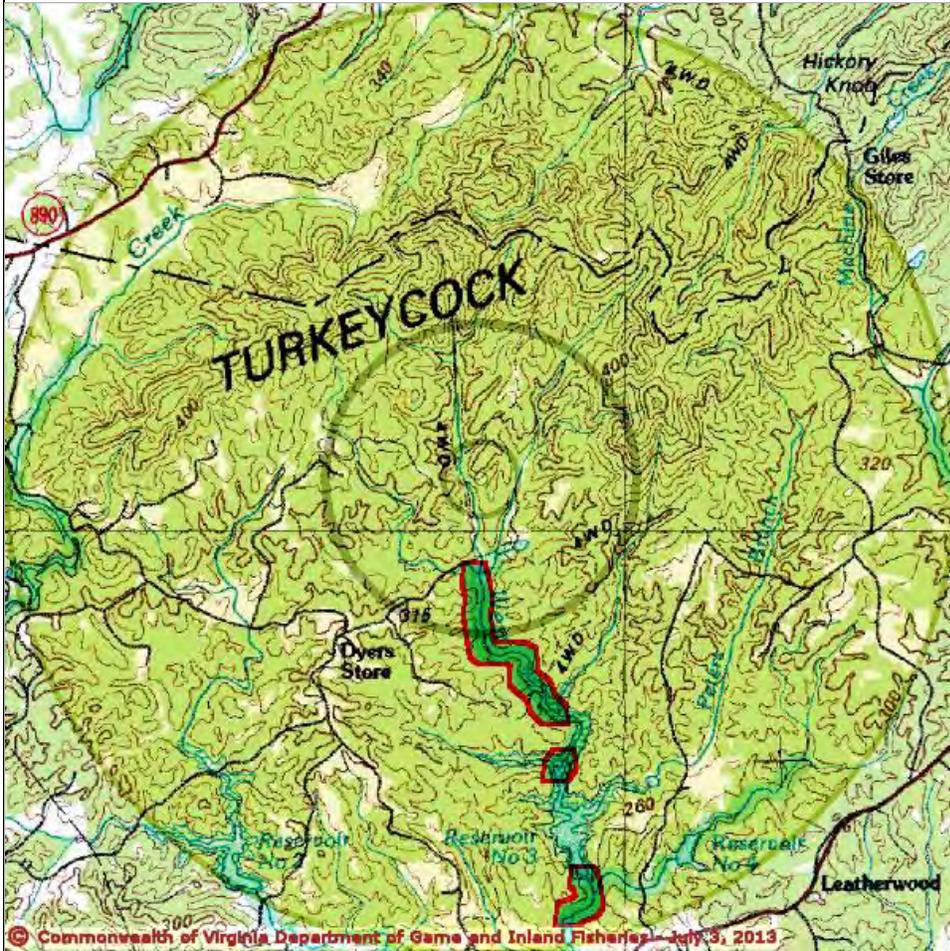
Map Overlay Choices

Current List: Position, Search,
Observation

Map Overlay Legend

-  **Position Rings**
1 mile and 1/4
mile at the
Search Point
-  **3 mile radius**
Search Area
-  **Data**
Observation Site

[back](#) 36,46,20.7 -79,47,22.8 [Refresh Browser Page](#)
 Map Click **Pan** **Zoom** **M** Map Scale **In** **Zoom** **Out** Screen Size **Small** **Size** **Big** [Help](#)



Point of Search 36,46,33.5 -79,46,58.8
Map Location 36,46,33.5 -79,46,58.8

- Select **Coordinate System**:
- Degrees,Minutes,Seconds Latitude - Longitude
 - Decimal Degrees Latitude - Longitude
 - Meters UTM NAD83 East North Zone
 - Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see [Microsoft terraserver-usa.com](http://Microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 17 NAD 1983 with left 603803 and top 4075511. Pixel size is 16 meters . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The

**Tier Reaches Group
West Fork Leatherwood
Creek (30101032)**

36,46,33.0 -79,46,59.0
is the Search Point

Display Item Location is
at center not at map center

Show Position Rings

Yes No
1 mile and 1/4 mile at the
Search Point

Show Search Area

Yes No
3 Search distance miles
radius

Search Point is at
map center

Base Map Choices

Topography

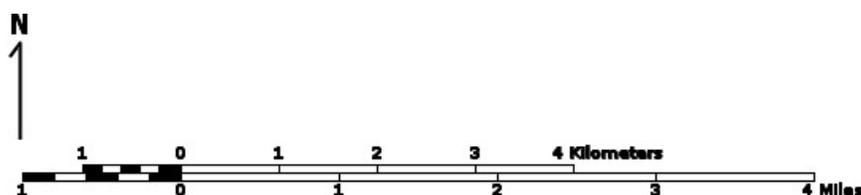
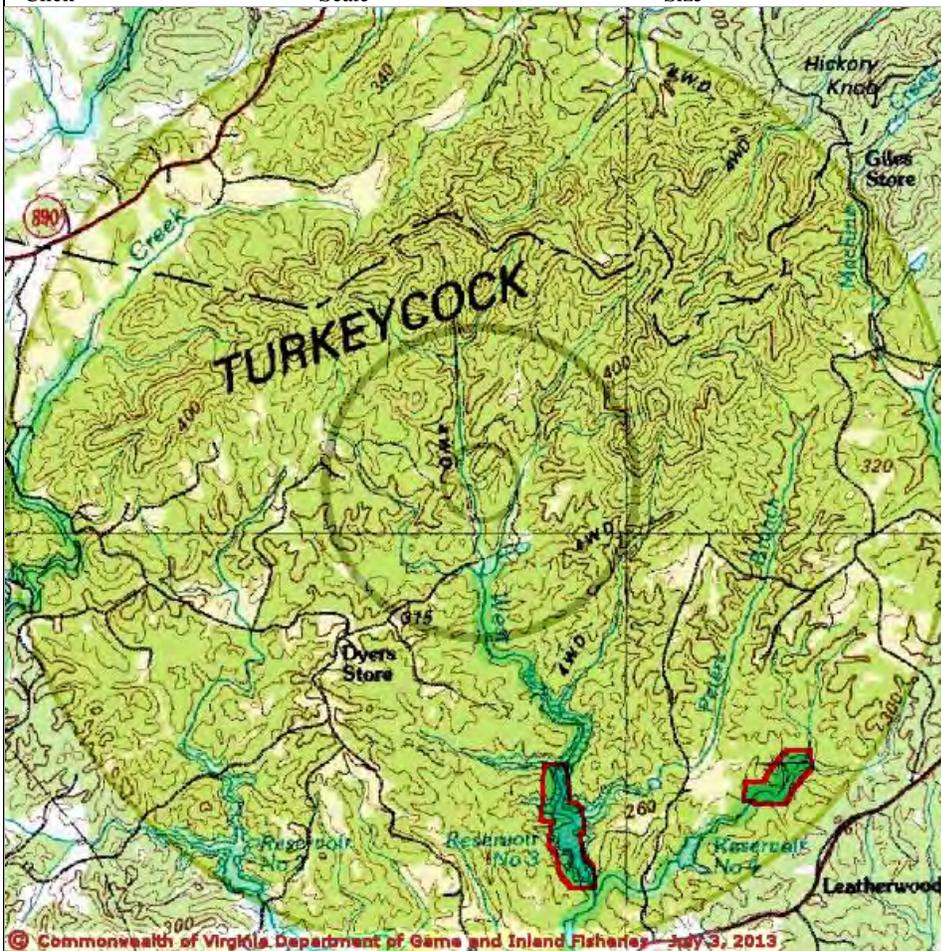
Map Overlay Choices

Current List: Position, Search,
Observation

Map Overlay Legend

-  **Position Rings**
1 mile and 1/4
mile at the
Search Point
-  **3 mile radius**
Search Area
-  **Data**
Observation Site

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 Map Map Scale Screen Size [Help](#)



Point of Search 36,46,33.0 -79,46,59.0

Map Location 36,46,33.0 -79,46,59.0

- Select **Coordinate System**:
- Degrees, Minutes, Seconds Latitude - Longitude
 - Decimal Degrees Latitude - Longitude
 - Meters UTM NAD83 East North Zone
 - Meters UTM NAD27 East North Zone

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