

MOTION:

**June 16, 2015
Regular Meeting
Res. No. 15-**

SECOND:

**RE: ENDORSE THE GENERAL MANAGEMENT PLAN FOR BRISTOE
STATION BATTLEFIELD HERITAGE PARK – BRENTSVILLE
MAGISTERIAL DISTRICT**

ACTION:

WHEREAS, in 2006, the Bristoe Station Battlefield Heritage Park was conveyed to Prince William County by the Civil War Trust; and

WHEREAS, in 2007, the Bristoe Station Battlefield Heritage Park was opened by the Department of Public Works for public access and interpretation; and

WHEREAS, in 2008, the Prince William Board of County Supervisors approved a perpetual historic conservation easement on the park with the Virginia Department of Historic Resources; and

WHEREAS, In accordance with best management practices for cultural and natural resource management, the County began the process of a developing a General Management Plan (GMP); and

WHEREAS, the Department of Public Works created a Project Team consisting of stakeholders, local landowners and content experts to develop the GMP for the park; and

WHEREAS, two public meetings were held to discuss the proposed plan and to receive public input; 22 residents attended the meetings and a large majority supported the plan; and

WHEREAS, on February 14, 2011, staff met with the Governing Board of the New Bristow Village Homeowners Association (NBVHOA) in order to review the draft GMP. The NBVHOA unanimously endorsed the current draft GMP; and

WHEREAS, the GMP guides the professional protection and management of the cultural and natural resources of the park;

NOW, THEREFORE, BE IT RESOLVED that the Prince William Board of County Supervisors does hereby endorse the attached GMP for Bristoe Station Battlefield Heritage Park.

June 16, 2015
Regular Meeting
Res. No. 15-
Page Two

ATTACHMENT: Draft Bristoe Station Battlefield Heritage Park General Management Plan

Votes:

Ayes:

Nays:

Absent from Vote:

Absent from Meeting:

ATTEST: _____
Clerk to the Board

THE BATTLEFIELD, near BRISTOL STATION showing destruction of R.R. Road by Ewell when retreating
sketched May 17 1862 by R.H. Cronon U.S.A.

See page 93. This Vol.

Prince William County Department of Public Works
Historic Preservation Division
17674 Main Street, Dumfries, VA 22026,
703-792-4754
www.pwcgov.org/historicpreservation

Prince William County Board of Supervisors

Chairman At-Large: Corey A. Stewart
Vice Chairman, Potomac District Supervisor: Maureen S. Caddigan
Brentsville District Supervisor: Jeanine Lawson
Coles District Supervisor: Martin E. Nohe
Gainesville District Supervisor: Pete Candland
Neabsco District Supervisor: John D. Jenkins
Occoquan District Supervisor: Michael C May
Potomac District Supervisor: Maureen S. Caddigan
Woodbridge District Supervisor: Frank J. Principi

Senior Staff

Melissa Peacor –County Executive
Tom Brunn – Director, Public Works
Brendon Hanafin – Division Chief, Historic Preservation Division

Project Team

Jim Burgess
Tom Dombrowski
Martha Duchnowski
Heather Hembrey
Michael Miller
Deb Oliver
Robert Orrison
Justin Patton
John Pearson
Lionel Raymond
Rebecca Super

Acknowledgements

The Prince William County Department of Public Works, Historic Preservation staff enlisted the assistance of many people in the development of this document. Stakeholders from Federal, State and local government, residents in the Bristow area, and citizens interested in public history and the preservation of our shared natural and cultural resources, offered insight, input and information. We also greatly appreciate the knowledge and the effort of the project team and their willingness to develop this document. It will serve as a guide to the protection and growth of the Bristoe Station Battlefield Heritage Park.



Sketch: Union Army crossing Kettle Run, August 1862
Library of Congress

**Bristoe Station Battlefield Heritage Park
General Management Plan
Table of Contents**

I. Introduction.....	6
A. Purpose and Description of Plan.....	6
B. Public Process.....	6
C. Park Description.....	7
D. Historical Background.....	8
E. Administrative History of the Park.....	27
II. Park Mission.....	29
A. Park Classification and Purpose.....	29
B. Park Mission.....	30
C. Park Significance.....	30
D. Visitor Profile.....	30
E. Relationship to the Board of Supervisors Strategic Plan Initiatives.....	31
III. Existing Conditions.....	32
A. Existing and Planned Use, Zoning.....	32
B. Existing and Planned Visitor Use.....	33
C. Cultural Resources.....	33
1. Archaeological Sites.....	33
2. Battlefield Landscape.....	34
3. Cemeteries.....	35
4. Agricultural Features.....	35
5. Historic Roads and Paths.....	36
6. Structures.....	37
D. Natural Resources.....	37
1. Fauna.....	37
2. Flora.....	38
3. Soils and Geology.....	39
4. Topography and Slopes.....	40
E. Park Access.....	40
F. Existing Facilities.....	41
G. Utilities.....	41
H. Description of Adjacent Properties.....	41
IV. Management and Development.....	42
A. Cultural Resource Management.....	42
B. Natural Resource Management.....	43
C. Desired Visitor Experience.....	44
D. Interpretation and Visitor Services.....	44
1. Information and Interpretive Media.....	44
2. Integration with other Civil War sites.....	45

*Bristoe Station Battlefield Heritage Park
General Management Plan*

E. Site Considerations.....	45
V. Management Framework.....	46
A. Cultural Resource Protection Zone.....	46
B. Natural Resource Protection Zones.....	46
C. Interpretative Use Area.....	47
D. Park Operations Use Area.....	47
E. Glossary of Uses.....	48
VI. Appendix.....	49
A. References	
B. Support Documentation	
1. Park Proffer Documentation	
2. DHR Easement	
3. Managing Land in the Piedmont for the Benefit of Wildlife	
C. Maps	
1. 1824 Bristow Tract Overlay	
2. 1861 Davis Farm Overlay	
3. 1878 Landowners Overlay	
4. 1937 Aerial Map Overlay	
5. Battlefield Core and Study Area	
6. Park Area Zoning Districts	
7. Proposed Trails and Corridors	
8. Park Soils	
9. Current Park Map (w/trails)	
10. Management Zone Map	

GENERAL MANAGEMENT PLAN

I. INTRODUCTION

A. Purpose and Description of the Plan

The General Management Plan (GMP) serves as a guide for all future planning and programming of the Park. The GMP establishes the Park purpose and classification. It describes existing conditions and constraints, details the desired visitor experience and identifies “management zones.” Uses are described in general terms and must be flexible to accommodate the changing needs of the Park and its visitors. This document should be referred to before future planning and design projects are started. Future revisions of this document should be considered on a five year cycle. Addendums may be added on an “as needed” basis, as park uses are considered and future properties are included under the Park’s auspices.

B. Public Process

The creation of the Bristoe Station Battlefield Heritage Park (BSBHP) was established through various public processes. The 2002 rezoning of New Bristow Village (PLN 2001-00157) and companion proffers led to the creation of the Park. The rezoning of New Bristow Village (REZ PLN 2001-00157) included proffers to offset the impact of development on the core area of the Bristoe Station Battlefield (Battlefield, 076-0024). The resulting proffers included the donation of 127 acres of the Battlefield to the Civil War Preservation Trust, who transferred the acreage to Prince William County. The proffer conditions are attached in Appendix B1.

The County has other review processes for design and construction of public facilities, which were followed during development of the Park. These processes included the development and recordation of plats and easements, the review and approval of construction and development plans and public facility reviews. Most public facility reviews are handled administratively by the Director of Planning without a public hearing.

Master planning and the development of general management plans are not required on County owned historic properties. However, in order to receive input from the community, the Department of Public Works, Historic Preservation Division has chosen to develop master plans for three of the four historic sites that are open to the public. The rezoning and subsequent Board of County Supervisors actions related to the BSBHP will be incorporated into the master plan. These actions are to be carried out utilizing the public hearing process required of County Board of Supervisors work session and general meetings.

In consultation with the County Attorney’s office and the Brentsville District Supervisor, staff decided a general management plan for BSBHP was necessary to

*Bristoe Station Battlefield Heritage Park
General Management Plan*

help guide future programming, management, and maintenance of the Park. This general management plan is intended to build on past public processes. It will serve as a general guide for appropriate park uses and their approximate location within the park. Elements of the plan include planned park elements, natural and cultural resource management, and general design concerns.

To create this plan, the County created a working group with expertise in the public history and management of historical assets, the Office of Planning, the neighboring New Bristow Village subdivision, and other interested citizens. This group formed management recommendations, which are outlined in this document.

The planning process includes a public meeting for citizens to review and comment on the draft plans. Meetings are advertised in accordance with County public meeting guidelines. Once public comment is received and considered, plans will be finalized in consideration of public input. The Department of Public Works, Historic Preservation Division will submit the general management plan to the Board of County Supervisors for review and approval.

The Board of County Supervisors executed a perpetual conservation easement on the property in October 2009. The easement is held by the Virginia Department of Historic Resources (VDHR). It is not required for VDHR to concur with the general management plan. However, any alterations to the land and buildings within the easement area must be reviewed and approved by VDHR.



Map of Battle of Bristoe Station, 1863
Jed Hotchkiss, Library of Congress

C. Park Description

BSBHP is a historic site designated as a County Registered Historic Site. The Park and surrounding area is also eligible for listing on the National Register of Historic Places. The Battle of Bristoe Station is also classified as a Priority I, Class B battlefield by the American Battlefield Protection Program (Class B, good or fair integrity, high or moderate threats). The land contained in the Park is important to the Civil War heritage of Prince William County and the region. The Park contains the greater part of three significant Civil War related events.

*Bristoe Station Battlefield Heritage Park
General Management Plan*

These include the Confederate encampment called Camp Jones in 1861, the Battle of Kettle Run in 1862 and the Battle of Bristoe Station in 1863.



Living History Program at
Bristoe Station Battlefield
Heritage Park

The Park is located in the Brentsville Magisterial District near the southwest corner of Rt. 28 (Nokesville Road) and Rt. 619 (Bristow Rd.) [see park vicinity map, Appendix C 8] It is located in the Nokesville Tax District and is listed as parcel number 7594-68-0311 (10707 General Kirkland Drive). Further, it is located in the Nokesville Quadrangle.

All parcels within the Park belong to Prince William County Government and are administered by the Department of Public Works, Historic Preservation Division. The Park's total acreage is currently 133 acres with existing proffers that could expand the park to 175 acres. The Park features a visitor parking lot, nearly three miles of interpretative trails, two barns, one silo and four houses. There are also two ponds and two known cemeteries (one is a private cemetery of the Robertson Family heirs). In addition, there may be other cemeteries and scattered burials throughout the Park as a result of deaths from disease in 1861 Confederate camps, the August 27, 1862 Battle of Kettle Run and the October 14, 1863 Battle of Bristoe.

D. Historical Background

1. Prehistory

Paleoindians were the first people to occupy Virginia prior to 8000 B.C. No evidence of Paleoindians has been recovered in the Park. People living during the Archaic period (8000-900 B.C.) moved across the land more widely than their Paleoindian ancestors. Evidence of Middle/Late Archaic populations has been recovered in and around the Park, including a Morrow Mountain projectile point dating to ca. 3000 B.C. One campsite and one lithic reduction site (location where stone tools were produced) dating to the Middle/Late Archaic period have been identified northeast of the Park. People living during the Woodland period (900 B.C. to A.D. 1600) increasingly adopted a sedentary lifestyle and developed horticulture. Middle/Late Woodland populations lived in permanent

settlements and used ceramics. One archaeological site containing Late Woodland period components has been identified east of the Park.

The majority of prehistoric artifacts excavated in and around the Park cannot be dated or attributed to a particular period. Many of these artifacts were recovered from sites that also contain historic components, indicating repeated use over centuries.

2. History up to Civil War

The Park is located within the historic 30,000-acre Brent, or Brent Town, Tract. Thomas, Lord Culpeper granted the tract to George Brent, Richard Foote, Nicholas Hayward and Robert Bristow in January 1686/7. When the tract was divided in 1737, Robert Bristow III received 7,500 acres between Kettle Run and Broad Run wherein the present Park is located. Robert Bristow was residing in England when he willed his Virginia lands to his son, Robert IV. Since he was a citizen of England, his Virginia lands were escheated to the Commonwealth of Virginia in 1779. The land remained in the Commonwealth's possession and leased until at least 1832, when the 49 Lots within Robert Bristow's tract were released for sale.

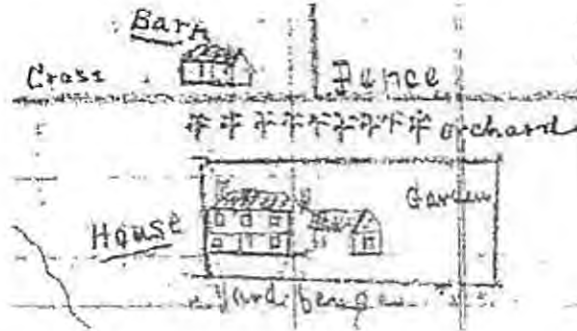
The Park spans sections of Lots 7, 10 and 11 of the Robert Bristow Tract, most commonly referred to as the Bristow Tract. The Bristow Tract was mapped in 1824 based on a land distribution settlement. In November 1823, John Maddox is listed as tenant of Lots 10, 11 and several adjoining lots outside current Park boundaries. James Fewell leased Lots 10, 11 and other nearby Lots from 1829 until at least 1832, except for 1831, when S. Renou is listed as tenant.

Between 1832 and ca. 1853, several of the Bristow tract Lot boundaries changed. At some time during that period, Charles Hunton purchased the 800-acre Bristoe Farm from the Commonwealth of Virginia. The Orange & Alexandria Railroad laid track through Hunton's Bristoe farm ca. 1850. After Hunton's death in 1853, John P. Phillips, the Commonwealth's Commissioner for Prince William County, was charged with selling Hunton's various properties (Chancery Suit of Phillips vs. Hunton) including his Bristoe Farm. Bristoe Farm was divided into four lots that were surveyed and mapped in July 1854. Phillips placed a notice in the *Alexandria Gazette* announcing that the four Bristoe Farm lots were to be sold at public auction on August 3, 1854. John Caldwell purchased Bristoe Farm Lot 3 north of the railroad track and west of Bristow Road on which most of the Park is located. It is unknown whether Caldwell occupied or improved the parcel. On November

*Bristoe Station Battlefield Heritage Park
General Management Plan*

10, 1858 Caldwell sold the 171-acre parcel to Thomas K. Davis, who was then serving as Prince William County Sheriff (1856-1860).

Davis Farmstead
in 1861
Southern Claims
Commission



Davis placed rail fence around his property and built several new structures, including a dwelling house, a barn and carriage house, a stable, a hen house, a smoke house, a milk house and a corn house. He divided the parcel into three fenced areas. The structures occupied the northeastern area. The center area contained a stream and 72 acres of hardwood timber. The southeastern area was meadow or field. Davis, a Unionist, ran a shop from a structure that still stands at the intersection of the railroad track and Brentsville Road that is known as the Davis-Beard House (see Appendix C 2).

The area of the Park that contains the known 10th Alabama and possible Mississippi cemetery (described below) lay within Lot 4 of the late Charles Hunton's Bristoe Farm. Records imply that Lot 4 was not sold during the August 1854 public auction. Lot 4 was not sold during Commissioner John P. Phillips' tenure. Lot 4 remained in the Commonwealth's possession during the American Civil War.

3. Confederate Encampments (August & September, 1861)

Shortly after the First Battle of Manassas (July 21, 1861), the Confederate infantry brigades of William H.C. Whiting (4th Alabama, 2nd Mississippi, 11th Mississippi, 6th North Carolina, and 1st Tennessee Regiments) and Cadmus Wilcox (9th Alabama, 10th Alabama, 11th Alabama, and 19th Mississippi Regiments) went into camp near Broad Run and the Orange & Alexandria Railroad at Bristoe Station. The exact location of these camp sites remains unknown today. Bristoe seemed an ideal site for a large encampment. It was a good distance away from the horrid stench and unhealthy environment of the recent battlefield, there was a good source of water and the railroad was very convenient. The troops named it "Camp Jones" very likely in honor of Colonel Egbert Jones of the 4th Alabama, who had been mortally wounded in the Battle of Manassas, but this has not been clearly established.

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Despite Bristoe's good water supply, typhoid, measles, meningitis, and other fevers soon swept through the camps of each regiment. Many perished. Private Bailey G. McClellan, a member of Company D, 10th Alabama, recorded, "Burial of the dead was a daily occurrence at Bristoe; military homage was paid to the remains of each departed soldier by the comrades discharging a musketry volley over the grave of the deceased at the interment. Reports of musketry could be heard throughout the camping grounds of the entire brigade and it was a signal well understood."

The 10th Alabama made "a considerable graveyard" while camped at Bristoe between August 4 and September 8 according to McClellan. While passing through the area the following spring, Colonel Theodore Gates of the 20th New York State Militia made note of a graveyard at Bristoe with 74 graves, most of them from the 10th Alabama. Marching by later in May 1862, Lt. Col. Thomas Clark of the 29th Ohio Volunteer Infantry recorded a cluster of graves numbering between 50 and 100 in a little valley, all single & marked on the head board with the occupant's name, and all from the 10th Alabama. In a letter published in The Jacksonville Republican in 1883, Rev. W.T. Schooley of Manassas counted "about one hundred graves of the Tenth Alabama Regiment" and recorded the relatively few names still visible on the deteriorating boards. He noted the graves were in a grove of small cedars which had come up since the men were buried. James Coleman, a veteran of the 10th Alabama, visited the site in 1909 and, according to his subsequent article in Confederate Veteran Magazine, the cedar posts that had been placed there as a directory of each grave were so badly deteriorated that he was unable to make out the names. Coleman also noted a number of cedar trees had grown up over the graves.

Sometime after this, the survivors of the 10th Alabama placed more permanent stones over the graves of their comrades. This action marked the location of the graveyard. The location of many of the other graves at Bristoe can no longer be determined or found.

Colonel William Dorsey Pender of the 6th North Carolina wrote home to his wife on August 27, 1861, "I find the health of the Regt. terrible. Only about two hundred and thirty fit for duty & great many of the sick desperately ill." In a subsequent letter from Camp Jones on September 14th, Pender states, "The Regt. is gradually diminishing. We are to march tomorrow & will not be able to carry more than three hundred & thirty or forty men fit for duty out of seven hundred & ninety eight. We average about one per day in deaths." The unit roster shows that the 6th North Carolina Regiment lost 21 men to disease between August 20 and September 30.

In April 1862, a member of Durell's Pennsylvania Battery recorded seeing as many as 128 graves, mostly for Mississippi soldiers, in two small enclosures at Bristoe. Other Confederate regiments encamped at Bristoe likely experienced equivalent losses.

By October, 1861, most of the regiments had vacated their camps at Bristoe, moving to new camps either near Centreville or to support the Confederate batteries blockading the Potomac River in the vicinity of Dumfries. In many cases, however, the regiments left their sick behind at Bristoe in the care of medical officers. Some of these soldiers lingered on for a number of months never to rejoin their units. The gravestone of one of these soldiers, Private Edmond L. Strudwick, Company D, 11th Alabama Regiment, was discovered in the cemetery at Greenwich Presbyterian Church in 2009. Strudwick died November 15, 1861 while in the care of Dr. John D. Payne who resided near Greenwich.

4. Armies' Interaction with Bristoe Civilians

While Confederate forces camped in the vicinity of Bristoe Station after the First Battle of Manassas in July 1861, they took Thomas K. Davis' possessions, prompting Davis to give up farming and open a store at Bristoe Station in the summer of 1861. Some time before February of 1862, Confederate soldiers burned Davis' store. He opened a store in another of his buildings at Bristoe in the spring of 1862. When Confederate forces evacuated Manassas in March 1862, they burned Davis' new store and all the goods that it contained to prevent them from falling into Union hands.

The first Union forces arrived at Bristoe Station in the first week of April 1862 during a snow storm. Gen. Rufus King commanded a division to include the 14th Brooklyn Regiment, the 2nd NY "Harris Light" Cavalry, [part of Blenker's division and not known to be in the vicinity of Bristoe at this time] [Kilpatrick was Lt.Col. of the Harris Light Cavalry already mentioned], and Colonel O'Connor's 2nd Wisconsin Regiment, [part of McCall's division]. Gen. King used the Davis house as his headquarters, while his troops camped along the railroad at Bristoe Station. During their 10 – 13 day stay, they took hundreds of fence rails and boards from nearby farms and made camp fires with the wood. Because their supply trains were delayed, they took and killed sheep, cattle, turkeys, hogs and sows and confiscated corn, hay, oats, wheat, bacon, horses and other property. Thomas K. Davis later estimated the value of his property taken by King's soldiers at \$12,716.00. King's troops left Bristoe around April 13. Union forces maintained a presence at Bristoe Station during the spring and summer of 1862. Union infantry and

cavalry frequented area farms, pasturing their cattle and horses and often taking property such as horses and fodder from local residents.

5. Battle of Kettle Run (August 27, 1862) On June 26, 1862, Major General John Pope took command of the newly created Federal "Army of Virginia." Pope's army, a consolidation of three separate Union commands, was assigned the responsibility of protecting Washington and controlling the region north of Richmond and west to the Shenandoah Valley. Directed to cooperate with General George B. McClellan's Army of the Potomac, Pope mobilized his new army near Warrenton and on July 12 began pushing southward. This movement threatened the Virginia Central Railroad, a vital Confederate supply line to the Shenandoah Valley, and was intended to draw Confederate forces from McClellan's front near Richmond. With McClellan's army contained at Harrison's Landing on the lower James River and posing little threat to Richmond, General Robert E. Lee reacted immediately and sent Major General Thomas J. "Stonewall" Jackson with 18,000 men by rail to protect the railroad junction at Gordonsville. Pope lost his opportunity to cut the Virginia Central Railroad with Jackson's timely arrival at Gordonsville on July 19.

The opposing forces warily eyed each other along the Rapidan River but avoided a general engagement. In early August, Lee took the initiative and authorized Jackson to strike before Pope could fully concentrate his army near Culpeper Court House. Reinforced with a newly assigned division under General A.P. Hill, Jackson advanced across the Rapidan on August 7 and on August 9 struck Nathaniel Bank's Second Corps of Pope's army near Cedar Mountain south of Culpeper. The Battle of Cedar Mountain was a standoff. The timely arrival of Union reinforcements from Pope's Third Corps under Irvin McDowell compelled Jackson to fall back to Orange Court House south of the Rapidan River.

At Richmond, Lee gained intelligence from a recently exchanged cavalry officer, John S. Mosby, that McClellan's entire army was withdrawing from the Peninsula. With McClellan's army no longer any threat to Richmond, Lee now had the opportunity he needed to deliver a decisive blow against Pope. With Major General James Longstreet's "Right Wing," Lee moved to join Jackson. By August 15 Lee had 55,000 troops concentrated south of the Rapidan, poised to crush Pope's 45,000 troops.

*Bristoe Station Battlefield Heritage Park
General Management Plan*



Sketch map of the Battle of Kettle Run by
Campbell Brown, Tennessee Archives

Still in striking range of the Virginia Central Railroad, Pope was hoping to hold his forward position in Culpeper County until reinforcements from McClellan's army could arrive. However, Pope's main line of supply, the Orange and Alexandria Railroad, was long, tenuous and could be cut at any number of places. The Rappahannock River in rear of the Union army could also be used to trap Pope.

On the morning of August 18, Brigadier General J.E.B. Stuart barely evaded capture by a Union scouting expedition south of the Rapidan River. One of Stuart's staff officers was not as fortunate, being caught with papers that revealed Lee's plans. Warned of the impending attack, Pope skillfully withdrew his army behind the upper Rappahannock River on August 19. In spite of considerable skirmishing, Pope's strong defensive line withstood Lee's probing for five days. Within a week, Pope could expect McClellan's reinforcements to bring his army to over 100,000 men, enough to go back on the offensive and soundly defeat Lee.

Seeking retribution for his embarrassment on August 18, General Stuart launched his own raid behind enemy lines, striking the Orange & Alexandria Railroad at Catlett's Station on the rainy night of

*Bristoe Station Battlefield Heritage Park
General Management Plan*

August 22. Although unable to burn a wet railroad bridge and inflict damage on Pope's supply line, Stuart took pleasure in discovering Pope's headquarters baggage at Catlett. A captured dispatch book revealed that Federal reinforcements were expected to join Pope shortly. This vital information was quickly reported to Lee who realized that if he was to defeat Pope and prevent the concentration of a massive Federal army, he had to act quickly. Stuart's raid at Catlett Station had demonstrated the vulnerability of the Union supply line.

On August 25, in a move that defied conventional military wisdom, Lee boldly divided his army, sending Jackson's 25,000 men on a wide march around Pope's right flank near Waterloo Bridge on the Rappahannock River. The balance of Lee's army, Longstreet's Right Wing, remained along the Rappahannock to occupy



Destruction of railroad at
Bristoe Station in 1862
Library of Congress

Pope's attention and distract him from Jackson's maneuver. Marching 55 miles in two days, Jackson's "foot cavalry" gained Pope's rear and cut the Orange and Alexandria Railroad, Pope's line of supply and communications, at Bristoe Station at sunset on August 26. After derailing two Union supply trains at Bristoe, Jackson sent Stuart's cavalry and two regiments of Isaac Trimble's brigade five miles up the tracks to Manassas Junction where, in the early morning hours of August 27, they met little resistance, took 300 prisoners and captured a huge Union army supply depot full of much needed food and equipment.

At dawn, Jackson moved A.P. Hill's and William Taliaferro's divisions to Manassas Junction where these weary troops proceeded to plunder Pope's supplies and drive off a New Jersey brigade advancing from the direction of the Bull Run railroad bridge. The division of General Richard S. Ewell was left behind at Bristoe Station as a rear guard. Ewell was intimately familiar with the area

*Bristoe Station Battlefield Heritage Park
General Management Plan*

as his boyhood home, Stony Lonesome, was only a few miles to the northwest.

John Pope was now forced to reassess the situation. With his supply line and telegraph communications with Washington severed, he had little choice but to abandon his strong positions along the upper Rappahannock. There was, however, a silver lining to this cloud. Jackson was isolated behind Union lines. Pope felt confident that he could cut off Jackson's escape, crush him with superior numbers and then turn on and defeat the rest of Lee's now diminished army. Pope ordered his forces to converge on Manassas Junction, leaving the Rappahannock and Longstreet's wing of Lee's army behind them. This is essentially what Lee calculated Pope would do. The balance of Lee's army then proceeded to follow the same circuitous route that Jackson had taken two days earlier with the objective of reuniting with Jackson and bringing Pope to battle on more favorable ground.

A Federal column led by General Joseph Hooker's division advanced from Catlett Station along the Orange and Alexandria Railroad. As Hooker's troops approached the Kettle Run railroad bridge shortly after noon, they met stubborn resistance from Ewell's advanced skirmishers, the 6th and 8th Louisiana from Henry Forno's (Hays') brigade. The Louisianans destroyed the Kettle Run bridge and fell back toward Bristoe as Hooker's lead brigade under Colonel Joseph Carr deployed and advanced in line of battle with skirmishers of the 2nd New York leading the way.

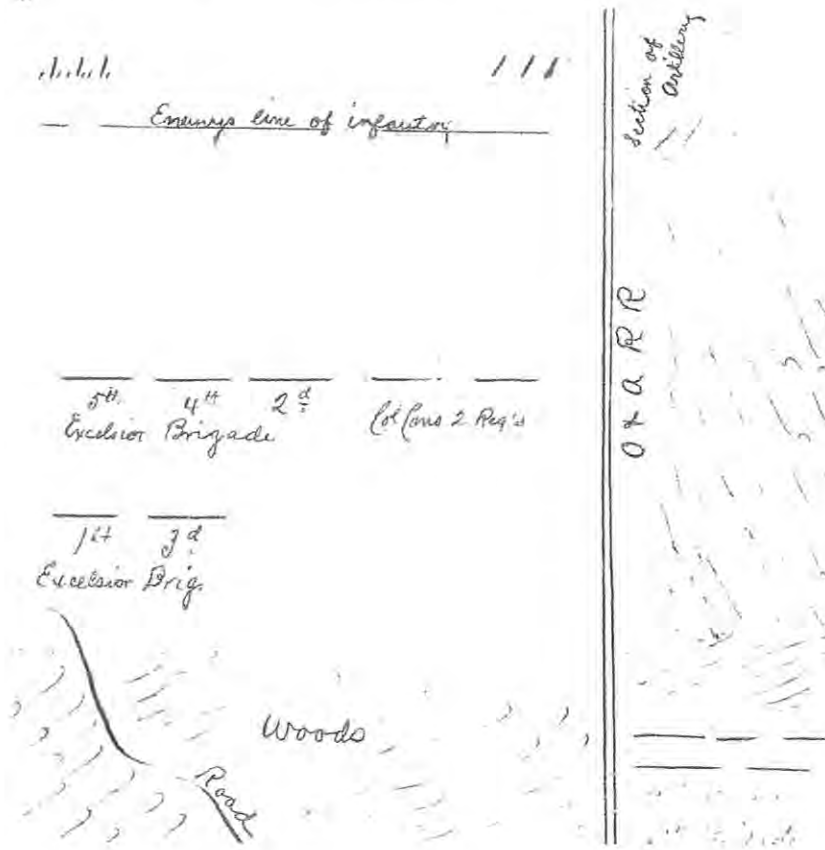


Sketch of Brown's Artillery at
Bristoe Station, 1863
Library of Congress

As the Federal line advanced beyond Kettle Run, their dense formations came under severe artillery fire from Captain W.F. Dement's 1st Maryland Battery posted on the high ground north of the tracks at Bristoe. The 6th and 8th Louisiana fell back nearly

*Bristoe Station Battlefield Heritage Park
General Management Plan*

three quarters of a mile and took a new position along a wooded ravine north of and perpendicular to the railroad. They were soon joined by the 5th Louisiana of Forno's Brigade. The 60th Georgia of Alexander Lawton's Brigade moved up and took position south of the railroad. The 2nd New York and 8th New Jersey, leading the Federal advance over the open ground north of the tracks, received a withering fire from the Louisianans in their new position. Using the railroad embankment for cover, the Georgians delivered devastating volleys into the flank of Carr's line.



Map of the Battle of Kettle Run by Colonel Nelson Taylor
Ohio Historical Society

Seeing the Union advance wavering, General Hooker personally led the 6th and 7th New Jersey of Carr's Brigade northeastward in an effort to gain the right flank of Forno's line. The remaining regiments of Carr's Brigade, the 5th New Jersey and 115th Pennsylvania, advanced through a belt of woods along the railroad. North of the tracks the Pennsylvanians met a destructive cross fire upon emerging from the woods and moved toward the railroad

*Bristoe Station Battlefield Heritage Park
General Management Plan*

embankment to gain cover. The inexperienced Pennsylvanians opened fire on a regiment south of the tracks which turned out to be the 5th New Jersey. This incident of friendly fire ended only after the New Jersey color bearer waved the U.S. flag several times above the embankment.

Colonel Nelson Taylor's "Excelsior Brigade" of five New York regiments now joined the battle in support of Carr's beleaguered troops. The 71st, 74th and 73th New York deployed on the left of the 8th New Jersey and suffered severe losses in a heavy exchange of fire with the 5th and 6th Louisiana. Taylor ordered his two reserve regiments, the 70th and 72nd New York, to charge the railroad on the right of the 8th New Jersey in response to the 60th Georgia taking position to enfilade the Union line from behind the railroad embankment. Taylor's swift action along with several well directed volleys delivered by the 5th New Jersey, no longer ducking friendly fire south of the railroad, persuaded the outflanked Georgians to retire. The pursuing 5th New Jersey managed to capture the colors of the 60th Georgia.

Meanwhile, the 6th and 7th New Jersey, personally led by Hooker, gained ground on the Confederate right flank and threatened the position held by Dement's Maryland battery. After firing several rounds at the approaching Federal line, one of which came close to hitting Hooker, the battery limbered up and withdrew. The tide of battle began to shift. Along the wooded ravine, Forno's Louisianans had borne the brunt of the fighting but they were beginning to run low on ammunition.

After delaying Hooker's advance much of the afternoon, Ewell began a textbook withdrawal of his troops around 4:30 p.m. Lawton pulled his Georgians back first followed by Forno's Louisianans. Jubal Early brought up the rear. After fording Broad Run, they marched to rejoin Jackson at Manassas Junction. Ewell left 35 dead behind on the field. Union casualties numbered around 300 killed and wounded. The fighting that erupted in the vicinity of the Kettle Run Bridge and continued back to Bristoe Station on the afternoon of August 27 became known as the Battle of Kettle Run. It was a relatively small affair but a significant prelude to the Second Battle of Manassas (August 28-30, 1862).

The Davis farm lay at the point where the Kettle Run battle climaxed. The day of the battle, Louisiana "Tigers" under Jackson burned Davis' second store at Bristoe. Union soldiers in Gen. Fitz John Porter's Corps entered the Davis house and took blankets, bedding and groceries for their wounded. The night of August 27,

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Davis' wife and children slept in a stone cellar across the railroad tracks from their farm, which lay between the Union and Confederate lines. The following day, the Davis family hastily moved to Brentsville while the Battle of Second Manassas raged a few miles away, engaging many of the troops who had fought in the Kettle Run battle.



Sketch of the Bristoe Station Battlefield
by Robert K. Sneden
Library of Congress

As the defeated Union army withdrew toward Washington after the Battle of Second Manassas, soldiers commanded by Gen. Nathaniel Banks took horses from Davis' neighbors. They killed 500 cattle that belonged to Davis' neighbor, Michael M. Roseberry. During the next several months, Union troops including the 2nd NY Regiment's "Harris Light Cavalry" under Col. J.W. Davies, Gen. O.O. Howard's Cavalry, Gen. John Buford's Cavalry, Cpt. Walker's Company of the 7th Michigan Cavalry, the 8th Illinois, the 1st Virginia Cavalry, Third Division in Segal's First Corps of Pope's Army of Virginia under Gen. Carl Shurtz, and the 40th NY Infantry regularly took horses and grain and killed livestock belonging to area farmers. Union forces frequently camped at local farms. After the July 1-3 battle at Gettysburg, Union forces encamped at Bristoe Station. Among these were First Army Corps soldiers under Maj. Gen. John Newton. Weary of the war and life amid soldiers, the Davis family abandoned their Bristoe farm and moved to Washington DC on September 11, 1863.

6. Battle of Bristoe Station (October 14, 1863)



In late 1862 and early 1863, the main armies confronted each other on the lower Rappahannock River near Fredericksburg. The Orange and Alexandria Railroad was no longer the major supply route for the Union army. Confederate cavalry raids on Dumfries

and Occoquan in late December shifted attention eastward. Federal patrols only occasionally passed through Bristoe.

In late June 1863, the opposing armies passed through Northern Virginia on their way to Gettysburg (July 1-3, 1863). After the decisive Confederate defeat in that battle, the Army of the Potomac, now commanded by General George G. Meade, cautiously followed Lee's army as it withdrew southward into Virginia. The Orange and Alexandria Railroad again became a primary supply route as the Union army again occupied the area around Warrenton.

In early September, the Confederate high command detached General James Longstreet's corps from the Army of Northern Virginia and sent it by rail to reinforce Braxton Bragg's Army of Tennessee near Chattanooga. Longstreet departed on September 9, reducing Lee's army by over one third and leaving Lee to face a far more numerically superior Union army. Lee's mission until Longstreet returned was to keep Meade's forces occupied so that they could not reinforce William S. Rosecrans' Army of the Cumberland.

Numerous skirmishes occurred in September as Meade advanced into Culpeper County and Lee fell back into Orange and Madison Counties. Meanwhile Bragg gained a major victory in the Battle of Chickamauga (September 19-20, 1863) with the help of Longstreet's transferred troops. In response, two Union corps from the Army of the Potomac were sent west on September 25. Meade's army of 75,000 still outnumbered Lee's 45,000 men, but that did not deter Lee from launching a new offensive campaign with his remaining forces to prevent additional Union troops from moving west. On October 10, 1863, the Confederate army began maneuvering around the Union right flank near Culpeper. This marked the beginning of the Bristoe Campaign. In order

*Bristoe Station Battlefield Heritage Park
General Management Plan*

to avoid what had happened to John Pope's Union Army of Virginia the previous year, Meade began withdrawing his army eastward toward Centreville.

October 11-13 were days of maneuvering for both armies. Taking circuitous routes across country to conceal their movements from Union signal stations, the two Confederate corps marched to Culpeper and then to Warrenton. The Union army had the advantage of interior lines and withdrew directly eastward along the railroad to avoid being cut off from their supply line to Washington. J.E.B. Stuart's cavalry screened the Confederate advance and at the same time harassed the retreating Federal troops.

In the early morning fog on October 14, General Richard Ewell's Second Corps clashed with part of Meade's army at Auburn. As Union forces continued their withdrawal, General A. P. Hill's Third Corps reached Greenwich about 10 a.m. There they found the camp fires of the Army of the Potomac's Third Corps still smoldering indicating that the retreating Union soldiers were not far ahead. Hill ordered his men to pursue the Federal column along the road toward Bristoe Station. As the Confederates continued their march they noted abandoned blankets, knapsacks, and other equipment littering the road, evidence of a hasty withdrawal.

As the Confederate column approached Bristoe Station, General Hill rode ahead to locate the Union infantry. He halted on the high ground a mile north of the station and observed elements of the Fifth Corps of the Army of the Potomac resting just beyond Broad Run at Milford Mills. Hill ordered his lead division, commanded by General Henry Heth, to quicken its march. Heth's division was only one and one-half miles from the station. Nearing the high ground overlooking Bristoe Station, Heth deployed his first three brigades in line of battle but waited for the other three brigades of the division to form a reserve. Afraid the Federals would detect his advance and escape, Hill ordered Heth to attack the enemy at once with his three brigades on the field.

As Heth's three brigades neared the open ground overlooking Broad Run, Hill deployed Major William T. Poague's battalion of artillery to fire on the unsuspecting Federals. The artillery pieces wheeled into action; their first shots signaled the opening of the Battle of Bristoe. The Fifth Corps infantry on

*Bristoe Station Battlefield Heritage Park
General Management Plan*

the plain across Broad Run had watched the artillery going into position but believed the guns were Union. The sound of shells passing overhead convinced them otherwise. As one of their own batteries returned fire, the Fifth Corps infantry withdrew toward Manassas Junction and safety.



Sketch of the Battle of Bristoe Station
Library of Congress

General Hill observed their retreat and ordered Heth's men to advance and strike the Federals while they were disorganized. The three leading Confederate brigades broke into the open fields and moved toward Broad Run, General John R. Cooke's brigade on the right, William W. Kirkland's brigade on the left, and Henry H. Walker's brigade formed in their rear. Expecting an easy victory, the Confederates cheerfully advanced. The laughter abruptly ended as they were struck by volleys of rifle-musket fire from the vicinity of the railroad.

Unbeknownst to General Hill, Meade's rear guard, the Federal Second Corps under the command of Major General Gouverneur Warren, was marching along the far side of the railroad to join the Fifth Corps, which had been waiting on the other side of Broad Run. Elements of General Alexander Webb's division, leading Warren's column, had started to cross the run near the railroad bridge when the Confederate artillery opened up on the Fifth Corps at Milford. Warren quickly sensed the threat and recognized the advantage of his position. Recalling the troops that had crossed Broad Run, he directed his men to form a line of battle behind the railroad

*Bristoe Station Battlefield Heritage Park
General Management Plan*

grade which formed a natural fortification offering cover and concealment.

Heth reported a strong enemy presence on his right flank, but Hill was fixated on the pursuit of the retreating Fifth Corps and believed other units of his corps, now approaching the battlefield, would protect Heth's right flank. He ordered the advance to continue. Cooke and Kirkland in the lead recognized the disastrous consequences of a further advance but pushed forward anyway. About 4,000 North Carolinians shifted their line of advance toward the railroad.

Three brigades of Warren's Second Corps (about 3,000 men) awaited them, backed by three artillery batteries. The North Carolinians were generally unaware of the presence of the Federal infantry hidden behind the railroad embankment, but saw the batteries on the hills beyond and ran quickly forward to engage the guns before they could inflict too much damage. The Federal infantry calmly waited behind the railroad embankment until the North Carolinians were at a range of only forty yards and then rose up and poured a devastating volley into the Confederate battle line.

Both Confederate brigade commanders were wounded almost immediately, as were many field officers. Colonel E.D. Hall of the 46th North Carolina took command of Cooke's brigade knowing that his men must either move forward or retreat, for as every second passed, more fell. The regiment led the brigade forward, but as the regimental historian later wrote, "The point from which we started was distinctly marked; at least four, and in some cases ten men from each company were lying dead or wounded in that line (Clark, 1901:442)." The regiment got within twenty steps of the railroad but was ordered back because the balance of the brigade had not followed.

Kirkland's brigade, with Lt. Colonel W.J. Martin of the 11th North Carolina assuming command, actually managed to gain the rear of the embankment near the railroad bridge. The 11th and part of the 47th North Carolina regiments drove the 82nd New York of Colonel Francis Heath's brigade on the Federal right flank back from the railroad and captured several prisoners. Other Confederates mounted the embankment and engaged in hand-to-hand combat with the Union soldiers but were soon overcome. One North Carolinian was able to get over the embankment and bayonet a member of the 1st

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Minnesota before becoming a casualty himself. A sergeant of the 19th Maine Infantry shot one Confederate at musket length and then bayoneted another as he tried to mount the embankment.

Finding themselves alone and subjected to a deadly artillery cross fire from T. Fred Brown's Battery B, 1st Rhode Island Light Artillery on the other side of Broad Run and R. Bruce Ricketts' Battery F & G, 1st Pennsylvania Light Artillery on the heights beyond the railroad, Lt. Col. Martin ordered a retreat back across the bloody field. The 44th North Carolina Regiment had to be ordered three times to withdraw before giving up the field. Corporal Thomas Cullen of the 82nd New York and Corporal Moses C. Hanscom of the 19th Maine were each awarded the Medal of Honor for the capture of Confederate flags during the repulse of Kirkland's troops.

The 42nd New York "Tammany Regiment" lacked cover where the Bristoe Road crossed the tracks and their line nearly broke. Brigade commander Colonel James E. Mallon steadied his old regiment as the Confederates closed. Showing concern for the condition of his troops and unwilling to stay under cover in the thick of the fight, Mallon was wounded in the stomach and carried to a gully in rear of his line. This greatly respected officer died shortly before the battle ended.

In only 15 to 20 minutes, the first Confederate attack had been bloodily repulsed. The survivors of Kirkland's and Cooke's brigades began to retreat up the open hill they had so boldly come down not long before. Other Confederates hugged the ground until a lull came in the firing. They then threw down their weapons and ran to safety behind the railroad, surrendering themselves as prisoners.

As the smoke cleared, a Confederate battery could be seen unsupported on the hill 500 yards north of the railroad. This was part of Major David McIntosh's artillery battalion that had been moved up to support Cooke's and Kirkland's attack. Union counter-battery fire had already disabled two of the guns. Skirmishers from the 19th Massachusetts of Colonel Mallon's brigade advanced and took possession of five guns which were then dragged back to the Union line along the railroad.

After Cooke and Kirkland's brigades had withdrawn, the reinforcements that Hill had promised to protect their right

*Bristoe Station Battlefield Heritage Park
General Management Plan*

flank finally arrived and advanced to the right of the North Carolinians. Edward Perry's and Carnot Posey's brigades of Major General Richard H. Anderson's division pressed the Union line in a dense pine thicket but were met and driven back by Colonel Thomas A. Smyth's brigade of Alexander Hays' division which had been sent forward from the railroad soon after Cooke's troops had retreated. General Posey was mortally wounded during the assault.

Over 1,300 men in grey had fallen in the battle, compared to about 600 Federals. Both commanders then began to consolidate their positions as more men arrived on both sides. As evening fell, Warren had his entire corps in position around Bristoe Station, holding the railroad line as his main defensive position. Major General Richard S. Ewell's Second Corps also arrived at Bristoe Station in the evening to complete the concentration of Lee's army. No further offensive action was taken, however. Warren's troops withdrew quietly during the night to join the main body of the Union army at Centreville.

Recognizing the strength of the Federal position at Centreville, Lee declined pursuit. Riding over the battlefield with General Hill the day after the battle, a very displeased General Lee reportedly said, "Well, General, bury these poor men and let us say no more about it." The men killed at Bristoe Station were buried in individual graves on the hillside where they had fallen. Identification of the dead was a difficult task. One Confederate later wrote, "A few we could only find some pieces of the body such as a hand or three fingers. Sometimes a foot or part of a foot, sometimes a whole arm, or half the head, and bodies mangled in every conceivable condition (Clark 1901:442)." A northern newspaper correspondent later wrote of finding "a large number of broken muskets, knapsacks, etc., strewn over the ground. One patch on the side of the hill is red with graves. They are chiefly North Carolinians; so say the slabs at the head of the graves." The bodies that could be identified were later removed to North Carolina, but many still remain on the field today.

Lee began withdrawing his army to the Rappahannock River on October 18, destroying the railroad along the way to delay Meade's return to the region. The Army of Northern Virginia would never again see the familiar fields of Prince William County. Raids by John S. Mosby's Rangers (43rd Battalion

Virginia Cavalry) remained a threat so the railroads in Prince William County continued under close Union guard for the remainder of the war.

7. History 1864-1909

Union forces quickly established defensive positions at Bristoe and at other stations along the Orange & Alexandria Railroad. On November 5, 1863, the commanding officer of the First Corps was directed to assign one division to guard the railroad from Manassas to Warrenton Junction, one brigade being placed at Bristoe. In late October, Union forces began to improve an older camp north of the railroad track and directly across Brentsville Road from the Davis farm. By mid-November, numerous regiments of the Pennsylvania Reserves Volunteer Corps under Brig. Gen. Samuel W. Crawford (Sykes' Fifth Corps, Third Division) were camped at Bristoe and busy constructing winter quarters.

Soldiers tore down structures that stood on several nearby farms and used the materials to build their huts. In November, they dismantled Davis' stable, barn and outbuildings. They tore down the main house, even removing the brick and stone foundation. They carried the materials to their camp in wagons or "toted on the soldiers backs as Davis' farm was so nearby." In late April 1864, most of Crawford's troops left the Bristoe camp. Union forces continued to guard the depot and to take supplies and livestock from residents even after Lee surrendered at Appomattox.

The Davis family returned to Bristoe Station after the war ended. Since none of their antebellum buildings remained, they rebuilt, improved and moved into their building directly on the railroad where Davis had operated his first store (now known as the Davis-Beard House). Some time before August 1870, Davis was involved in two Chancery Causes, Nicol vs. Davis and Hooe vs. Davis, resulting in the sale of much of Davis' land. On August 29, 1870 John A. Brawner purchased 27 acres in the northeast corner of Davis' tract. In 1877, Davis' wife Martha gained possession of the half-acre lot containing their house.

On October 8, 1883 Thomas K. Davis sold the majority of his Bristoe parcel to Basil Snowden Robertson through A.D. Payne, Special Commissioner of the Prince William County Circuit Court in the Chancery Suits Nicol vs. Davis and Hooe vs. Davis. It is probable that the Robertson family occupied the parcel prior to 1883, since the earliest known burial in Robertson family cemetery occurred in January 1878. On April 1, 1922 Basil S. Robertson's children sold their 106-acre parcel to Joseph L. Rollins with

*Bristoe Station Battlefield Heritage Park
General Management Plan*

exception of the Robertson cemetery. Centex Homes purchased the entire 341-acre Rollins tract, gaining title in 2003. Centex Homes proffered the land contained within current Park boundaries to the Civil War Preservation Trust (CWPT) in 2004. The CWPT donated the parcel to Prince William County in June 2006. (See Administrative History.)

Lot 4 of Charles Hunton's Bristoe Farm remained in the Commonwealth's possession until August 29, 1870. Records imply that John A. Brawner purchased a 12-acre section of Lot 4, referred to as the Chapel Spring tract, which abutted the northern boundary of the parcel that he purchased the same day from the Thomas K. Davis tract. Brawner died in 1906 and his property was likely sold before 1920, when the U.S. Federal Census lists his widow as living in Gainesville, VA. 37 acres of the Park are contained within Brawner's 1870 parcel. The chain of title from John A. Brawner to the present day is yet to be documented.

On December 14, 1877 James J. Davies, the Commonwealth's Commissioner for Prince William County, sold the remaining 233 acres of Lot 4 to James M. Snook. The Snooks appear to have preserved the Alabama and Mississippi cemeteries during their tenure. 20 acres of the Park are contained within the Snooks' 1877 parcel. The chain of title from the Snooks to the present day is yet to be documented. (See 1883 Landowners Overlay)

E. Administrative History of the Park

The first recorded effort to save any part of the Bristoe Station battlefield appears to have been in 1909. Oral tradition relates that James Coleman, a veteran of the 10th Alabama Regiment, approached a Bristoe landowner in an effort to purchase the small space encompassing the 10th Alabama Cemetery. The owner, a daughter of a former Union soldier, declined but promised to protect the graves as long as she lived.

Bristow surfaced on the radar of preservationists in January 1988 when Prince William County began considering Bristow as a potential site for a new debris landfill. One month later, the County dropped Bristow as a debris landfill site due to vocal opposition from landowners, historians and preservationists citing the presence of Civil War graves. The County subsequently received a \$10,000 grant to consider Bristow for inclusion on the National Register of Historic Places. In August 1988, County Archeologist Jan Townsend submitted the nomination forms to add Bristoe Station to the National Register.

In November 1988, the Virginia Division of Historic Landmarks dropped their landmark designation efforts due to strong landowner opposition. County staff sought an historic overlay district for the Bristoe Station area. This effort met with

*Bristoe Station Battlefield Heritage Park
General Management Plan*

strong opposition from landowners. In April of 1991, the Virginia Department of Historic Resources placed Bristow on the Virginia Landmarks Register. The following January, the Virginia General Assembly passed SB514 changing the rules for state historic designations to require the consent of a majority of landowners (as required for listing on the National Register). The law was made retroactive to cause reconsideration of the Bristow and Brandy Station battlefields. In May 1993, the Virginia Department of Historic Resources removed state landmark designation for Bristow.

In 2000, Centex Homes became the contract purchaser of the 341-acre Rollins tract on the west side of Route. 619. Centex applied for rezoning (PLN 2001-00157) with plans for residential and commercial construction to be known as "New Bristow Village." Thunderbird Archeological Associates completed a Phase I archeology survey for Centex and their report acknowledged the potential for unmarked graves on the tract.

In June 2001, an independent thermal-imaging survey sponsored by the Sons of Confederate Veterans identified another possible burial site (44PW1234) in woods east of the well established 10th Alabama Cemetery. In October 2001, Centex submitted formal proffers to the County which included the donation of 127 acres to the Civil War Preservation Trust. This would become the core of the Bristoe Station Battlefield Heritage Park.

The County Planning Commission approved the Centex plan in February 2002. In negotiations prior to the rezoning hearings, the County Historical Commission and other interested parties (Bull Run Civil War Roundtable, Sons of Confederate Veterans, CWPT, etc.) agreed to support the rezoning but insisted that Centex allow an independent investigation for unmarked graves to be conducted before any land disturbance took place. At the March 19, 2002, rezoning hearing the Board of County Supervisors approved the rezoning after Centex amended its proffers to fund a ground penetrating radar survey in a 50' buffer around the identified cemeteries. Centex also agreed to allow access for an independent unmarked grave survey for a 120-day period.

Centex took title to the Rollins tract in July 2003 and the window for the independent archeological survey in search of unmarked graves began. This survey, sponsored by the Sons of Confederate Veterans and supervised by archeologist Patrick O'Neill, was completed by November 2003. The survey covered only the areas planned for development. A number of Civil War artifacts were recovered and eventually cataloged, but the survey had negative results in locating any unmarked graves.

Subsequent to the New Bristow Village rezoning, the Faxon Estate tract, a 6.3-acre parcel of land contiguous to the heritage park, became available for purchase. This is a key piece of the core area of the battlefield located along the west side of

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Bristow Road adjacent the railroad where the fighting occurred. The Civil War Preservation Trust purchased this property in March of 2004 for \$135,000.

In September 2004, Centex transferred title of the 127 acres to the CWPT. After the land transfer from Centex to the CWPT, the County began making plans to manage the property. On September 13, 2005, the Department of Planning approved a public facility review that allowed the County to move the donated Layton farmhouse to the to CWPT portion of the Battlefield property. The farmhouse was designated as contributing building to the historic town of Bristow, which prospered after the American Civil War.

On December 20, 2005 the Board of County Supervisors approved the acceptance of the donation of a 127-acre parcel from the Civil War Preservation Trust and authorized the expenditure of \$135,000 for the purchase of a 6.3-acre parcel known as the Faxon estate tract.

On June 27, 2006, the CWPT officially transferred their Bristoe battlefield land, now expanded to 133 acres, to the Historic Preservation Division of the Prince William County Department of Public Works. The park grounds for the new “Bristoe Station Battlefield Heritage Park” were officially opened to the public after the parking area and trail network were completed. A dedication ceremony was held on October 12, 2007.

The Board of County Supervisors took another important step in protecting the County owned portion of the Battlefield on September 9, 2008. The Board of County Supervisors approved the acceptance of the conveyance of a perpetual conservation easement to the Virginia Department of Historic Resources for the BSBHP. This easement was ratified in October of 2009, when the County entered into a Deed Of Gift Of Easement with the Virginia Department of Historic Resources for the Bristoe Battlefield Heritage Park (VDHR FILE NO. 076-0024).

II. PARK MISSION

A. Park Classification and Purpose

BSBHP is a Designated Cultural Resource as defined by the Prince William County Comprehensive Plan (revised March 2009). Park purpose statements are intended to provide an umbrella for planning and decision making. By establishing park purpose, staff has a mechanism to evaluate and respond to future requests for changes based on legislative requirements or visitor preferences. If a proposed use conflicts with any one of the purposes listed, it will be considered an incompatible use.

The purpose of the BSBHP is to:

- Preserve and interpret the people and events involved in settlement and occupation of the Bristow (Bristoe) area.
- Provide the setting and tangible resources to educate a broad and diverse constituency on the cultural and natural resources that are related to the property and vicinity.

B. Park Mission

*Prince William
Civil War
Heritage Trail*

Prince William County
"Capital of the Battlefield"



The mission of Bristoe Station Battlefield Heritage Park is to provide opportunities for public enrichment through interpretation of American Civil War history and the village of Bristoe, as well as protect and interpret natural resources. It is valued as public space for education and scenic enjoyment.

C. Park Significance

BSBHP is important for its cultural resources. The property represents the “core” of two Civil War battlefields, cemeteries and possible Civil War camp sites. It also includes remnants

of agricultural and domestic structures that provide a direct connection to Prince William County’s rich agricultural and rural heritage. The Park not only serves as an avenue to preserve the history of the land encompassed in the Park, but also the 19th century village of Bristoe Station and its 20th century evolution into the community of Bristow. The preservation and interpretation of the Park will guarantee that the public will have the opportunity to learn about and honor the soldiers who fought here and the people who created a vibrant community.

The property is also valuable because of its vast natural resources. It offers one of the largest publicly accessible preserved open spaces in central Prince William County. There is the ability to foster wildlife unique to this area and to support strong meadow management practices.

D. Visitor Profile

The Park is part of many marketing initiatives such as Virginia Civil War Trails, Prince William Civil War Heritage Trail and is actively taking part in the statewide Civil War Sesquicentennial Commemoration. As such, it attracts American Civil War enthusiasts, scholars and school groups.

As the Park is a significant preserved tract of open space, wildlife and plant life abound. This attracts wild flower enthusiasts as well as bird watchers and wildlife observers.

Due to its location adjacent to residential and commercial development, the Park also serves a wide variety of local residents and workers. The result is that the

Park has a dual function as both a nationally significant historic site and as a passive recreational park.

E. Relationship to the Board of Supervisors Strategic Plan Initiatives

At the time of the Park's establishment, the creation of the BSBHP was guided by the Board of County Supervisors 2004 – 2008 Strategic Plan. The Community Development Goal guided the acquisition policy for the BSBHP. The goal stated: *"Prince William County will develop and maintain a well-planned, attractive and sustainable community where citizens enjoy a high quality of life and positive reward for their investment. We are a community where residents, businesses and visitors appreciate the County's historic, cultural, natural, tourist and recreational resources"*

The acquisition of the site assisted the County in meeting the community development goal through a number of strategies. The key strategy for this effort was strategy 9. This was to identify and protect cultural/historical resources that are important for documenting or demonstrating the pre-history or history of the County. This strategy included encouraging developers and private owners to preserve historic resources.

Once acquired, BSBHP was developed through the guidance of a number of complementary strategies: These include the following:

Strategy 10: Preserve, rehabilitate and program County owned historic sites for public use. The outcomes include the following:"

Strategy 10.1: Complete the restoration and public facility improvements at County owned historic sites.

Strategy 10.2: Implement special events, interpretive programs and encourage rentals at County historic sites; program one annual special event at Rippon Lodge Historic Site, Brentsville Courthouse Historic Centre, Ben Lomond Historic Site and Bristow Battlefield Historic Site.

Strategy 10.5: Explore acquisition and all alternative means to preserve significant threatened County historic sites.

The continued development and management of BSBHP is guided by these strategies and will include direction from future County Board of Supervisors actions.

III. EXISTING CONDITIONS

A. Existing and Planned Use, Zoning

The Park is located on the edge of the County's Development Area. The Development Area is planned for commercial, office and industrial use as well as higher density residential uses. The Rural Area that extends to the south is planned for agricultural and large lot (10 acres or more) estate uses. The Development Area extends from the Park to the northeast, north, northwest and west.

While the Park is undeveloped, the land on the west and wrapping around the Park to the south is zoned Planned Mixed Residential (PMR). It is a mix of single family homes, townhomes and commercial uses. Part of the PMR zoning is a commercial section, located to the west of the Park at the junction of Bristow Road, Chapel Springs Road, and Nokesville Road (Route 28), to complement the residences. It includes a low office building at a maximum height of 45 feet. A small parcel of land between Route 28 and Chapel Springs Road is zoned B-1 and is intended for community-scale retail, office and institutional uses where appropriate. Refer to Appendix C 6 for a complete zoning map of the Park and adjacent properties.

The Park encircles three lots on Bristow Road on which two single family homes are located. Parcels between the Park and Norfolk Southern Railroad to the northeast are zoned Agricultural and consist of single family homes and residences converted to retail.

Northwest of the Park, across Bristow Road, is the campus for the Manassas Assembly of God in an area zoned Office Mid-Rise with a maximum allowable building height of 70 feet. Due north of the Park and across Bristow Road the land is zoned Light Industrial (M-2). The M-2 designation is intended to provide land for research and development centers, light industrial manufacturing, warehousing, wholesaling and related office and institutional uses. It is not for retail and service uses except in support of the uses primarily intended. The maximum building height is 60 feet.

The land located northeast of and across from the Park, on the other side of Norfolk Southern railroad tracks and north of Bristow Road was rezoned to Planned Business District (PBD, REZ PLN2006-00458, Manassas Business Park). Although this land is still undeveloped, a maximum of 573,000 square feet of development with a mix of office, warehouse, and other uses is allowed. The maximum allowable building height is 45 feet. REZ PLN2006-00458 proffered 42 acres of land to the Prince William Board of County Supervisors to be incorporated into the Park.

Land across the rail road tracks and south of Bristow Road is zoned Agricultural. It currently consists of agricultural fields supported by farm residences and

outbuildings. These parcels could be developed by-right into single family homes with a minimum lot size of 10 acres.

The Parks, Open Space, and Trails chapter of the County's Comprehensive Plan shows numerous planned corridors and trails in and around the Park. Appendix C 7 shows several trails corridors. A planned Heritage Corridor along Bristow Road connects the park with Brentsville Courthouse Historic Centre to the east. A Recreation Corridor beginning at a tributary inside the Park connects to the Kettle Run Recreation Corridor. The Kettle Run Recreation Corridor eventually connects to the Broad Run Recreation Corridor. Class 1 trails are planned to parallel Bristow Road and Nokesville Road (Route 28) and a Class 3 trail is planned along Valley View Drive. The Prince William County Park Authority has planned trails along Kettle Run Recreation Corridor and along Broad Run. These corridors or trails have not been built.

B. Existing and Planned Visitor Use

Staff expects to host memorial, commemorative and other special events at BSBHP. On average, these events would be three to four times per year at the Battlefield. Anticipated special events will focus on the anniversaries of the two battles (Kettle Run and Bristoe Station).



Living History Program at
Bristoe Station Battlefield
Heritage Park

C. Cultural Resources

1. Archaeological Sites

Thirteen archaeological sites have been identified within Park boundaries and listed on the Virginia Department of Historic Resources archaeological site inventory. Five of these sites are eligible for listing on the National Register of Historic Places. All known archaeological sites, archaeological features that are identified but have not been formally investigated, and areas where unidentified archaeological resources may exist are placed within the Cultural Resources Protection Zone.

2. Battlefield Landscape

Several landscape features were significant during the Battle of Kettle Run (August 27, 1862) and the Battle of Bristoe Station (October 14, 1863).

- a. **The Orange and Alexandria Railroad** (currently Norfolk Southern Railroad) was located on the southern edge of the Park. It was chartered in 1848 and completed in 1854, with 36 stations including those at Manassas Junction and Bristoe. On August 26, 1862, Gen. J.E.B. Stuart's 2nd Virginia Cavalry, riding in advance of "Stonewall" Jackson's column of infantry, overtook Federal forces and captured Bristoe Station. They destroyed tracks, cut the telegraph line and derailed two trains. The next day, Maj. Gen. Joseph Hooker's federal brigades engaged Confederates at Bristoe Station during the Battle of Kettle Run. During the 1863 Battle of Bristoe Station, fighting was concentrated along the railroad.
- b. **Brentsville Road** (currently Bristow Road/Rte. 619) was the main thoroughfare between Gainesville and Brentsville. Confederate forces under Early, Forno and Lawton lined Bristoe Road, engaging Federal forces during the 1862 Battle of Kettle Run. The 1863 Battle of Bristoe Station occurred at the intersection of Brentsville Road and the Orange and Alexandria Railroad.
- c. **High ground at core of historic farmstead** was the location of Maj. McIntosh's Confederate battery during the Battle of Bristoe Station. No structures existed in this area before the 1870s.
- d. **Agricultural Fields** that are currently delineated by cedars, oaks and vegetation have changed little since 1858 when Thomas L. Davis established his farm. One exception is the absence of a 30-acre timber lot that spanned the central portion of Davis' farm. This timber lot existed during the battles of Kettle Run and Bristoe Station. Union soldiers cut down all of the trees during the fall and winter of 1863, using the wood to construct huts in their camp across Brentsville Road.
- d. **Water features** that were extant during the Period of Significance (1861-1865) include two feeder streams in the southern portion of the Park.

3. Cemeteries

The Park's battlefield contains at least two cemeteries containing remains of Confederate soldiers who died of disease at Camp Jones (August through October 1861).

a. Alabama Regiment Cemetery

This cemetery is located in the northwest quadrant of the Park. The area measures approximately 175 ft. x 150 ft. It contains approximately 100 unmarked graves of soldiers who died of disease from August to October 1861 at Camp Jones. One grave is still marked by a field stone. The cemetery site is recorded, but its boundaries have not been archaeologically delineated. Cedar trees growing over the graves were first noted in 1883 (Rev. W.T. Schooly letter in *The Jacksonville Republican*) and again in 1909 by James Coleman, a 10th Alabama veteran.

b. Probable Civil War-period Cemetery

This probable cemetery is located adjacent to the 10th Alabama Regiment cemetery. Infra red aerial images revealed probable unmarked graves in this area. The site has not been archaeologically investigated.

c. Civil War-period Cemetery

This cemetery is located in the northwest quadrant of the Park. The area contains as many as 160 graves of Mississippi, North Carolina and Alabama soldiers who died of disease from August through October 1861 at Camp Jones. The cemetery site is not recorded and its boundaries have not been archaeologically delineated.

d. Robertson Cemetery

This cemetery is located in the southeast quadrant of the Park. The fenced area measures 50 ft. x 50 ft. It contains 27 marked graves and 11 graves marked by natural fieldstones. Most internments were those of the Robertson family. Dates on the marked stones range from 1878 to 1918. The cemetery site is recorded, but its boundaries have not been archaeologically delineated.

4. Agricultural Features

- a.** Two man-made ponds constructed after 1937. The 1937 aerial photograph of the area shows woods where each pond is currently located.

- b. Agricultural field current boundaries correspond with those established by Thomas K. Davis in 1858 and John A. Brawner in 1870. The same field boundaries marked by lines of oaks, cedars and vegetation are visible in the 1937 aerial photograph. All tree lines within the Park align with tree lines that are visible in the 1937 aerial image. No more recent tree lines exist.
- c. Groves of trees existing along the Broad Run Headwater generally align with tree groves that are visible in the 1937 aerial photograph. Wooded areas in and around the cemeteries also align with the 1937 aerial photograph, except where two farm ponds were constructed after 1937. The cedar grove located on the 10th Alabama cemetery apparently did not exist in 1861 based on Rev. W.T. Stooley's 1883 report that a grove of small cedars had come up since the men were buried. Other tree groves in the vicinity of the Mississippi, North Carolina and Alabama cemetery and the probable cemetery adjacent to the 10^h Alabama cemetery may also post date the Civil War.

The grove of trees located in the southeast quadrant of the Park along the railroad post dates 1937, when the area was a cleared agricultural field.

5. Historic Roads and Paths

a. Brentsville Road (Rte. 619)

This road was established no later than 1731 by Dumfries town merchants to enable Shenandoah Valley tobacco producers to transport their crop to port.

b. Historic Road Traces on Park

Traces of a historic road leading from Bristow Road to the ca. 1960s house are visible. The road originates on Bristow Road approximately 725 ft. from the Park's northeastern boundary. The road trace continues perpendicular to Bristow Road for approximately 380 ft. along a sparse row of trees, turning northwestward at a right angle and terminating near the historic stone house foundation. This road is clearly visible in the 1937 aerial photograph, although at that time it terminated at a barn located south of the house.

Sections of a historic road are visible approximately 295 feet to the north of and parallel to the railroad. The most visible sections lay between rows of cedars and other trees that begin approximately 550 feet from Bristow Road and continue to the southeast for approximately 900 feet. The road turns to the

northwest at a right angle for approximately 330 ft., then curves at a right angle to run approximately 890 feet to the north of and parallel to the railroad, ending at the Park's western boundary. This road is clearly visible in the 1937 aerial photograph, where it terminates at a neighboring farm complex southwest of the current Park. This road is of particular interest, because it is believed to be the road used by Union troops in 1862 during the Battle of Kettle Run.

6. Structures

Seven structures stand within Park boundaries:

- a. **House/Rambler** at 10707 General Kirkland Drive, ca. 1960 domestic structure and a Silo (Historic Property #76-607) are remnants of an early-to-mid-20th century farmstead. Associated features are fruit trees, the stone foundation of a 19th-century domestic structure and historic roads.
- b. **House/Bungalow** at 10708 Bristow Road (Historic Property #76-598) pre-1937 domestic structure.
- c. **Farmhouse** (Historic Property #76-599) circa 1890 domestic structure, occasionally referred to as the Layton House. The house was moved to its current location in 2007 from an adjacent property.
- d. **Large Barn** Pre-1937 structure
- e. **Small Barn** Pre-1937 structure
- f. **Historic building foundation** remains from a house likely constructed by John A. Brawner during the 1870s. The frame house atop the foundation was demolished in 2007 and the foundation was backfilled. Foundation stones are exposed.

D. Natural Resources

1. Fauna

There has not been a formal inventory of wildlife at BSBHP. It is known though that many of the County's urban and rural park sites have a rich diversity of wildlife including deer, fox, reptiles, amphibians and birds. The Historic Preservation Division's mission and policies require the preservation and protection of this population. This protection currently takes many forms including having paid and volunteer staff monitors the wildlife populations on site. There are other programs and activities such as blue bird boxes, managing meadows to support wildlife that is dependent on that habitat, and the establishment of hedgerows and brush

piles for small mammals and amphibians. The Historic Preservation Division is aware of several species that are known to occur within the area of BSBHP that are listed as Special Status Faunal Species by the Virginia Department of Game and Inland Fisheries. Special Status Faunal Species are threatened or endangered species. Careful monitoring by staff and volunteers will take place.



There has not been a formal inventory of wildlife at BSBHP. It is known though that many of the County's urban and rural park sites have a rich diversity of wildlife including deer, fox, reptiles, amphibians and birds. The Historic Preservation Division's mission and policies require the preservation and protection of this population. This protection currently takes many forms including having paid and volunteer staff monitors the wildlife populations on site. There are other programs and activities such as blue bird boxes, managing meadows to support wildlife that is dependent on that habitat, and the establishment of hedgerows and brush piles for small mammals and amphibians. The Historic Preservation Division is aware of several species that are known to occur within the area of BSBHP that are listed as Special Status Faunal Species by the Virginia Department of Game and Inland Fisheries. Special Status Faunal Species are threatened or endangered species. Careful monitoring by staff and volunteers will take place.

2. Flora

BSBHP contains distinct areas of meadow, forest stands, hedge rows, and historic roadbeds. The hedge rows and roadbeds are dominated by Eastern Redcedar (*Juniperus virginiana*) with a few oaks (*Quercus spp.*) and cherries (*Prunus spp.*). Invasive species such as Tree-of-Heaven (*Ailanthus altissima*), Honeysuckle (*Lonicera japonica* and *maackii*) and Bull Thistle (*Cirsium vulgare*) are present in many of the hedge rows and the meadows. Tree-of-Heaven control will need to be a top priority to reduce its proclivity toward dominating the landscape. The meadows are a mix of warm and cool season grasses. Native plants species known to exist within the meadows include Black-eyed Susans (*Rudbeckia spp.*), New York Ironweed (*Vernonia noveboracensis*), Goldenrod (*Solidago*

spp.) and Penstemon (*Penstemon spp.*). Staff and volunteers have identified species in the Park and will continue to do regular inventories. Future meadow management will include the increased establishment of warm season grasses and native plants (Little Bluestem, Switchgrass and Black Eyed Susan) and the removal of invasive or unwanted species (Johnson grass, cool season turf grass). Methods used can include but are not limited to chemical control (carefully monitored herbicide applications), mechanical control (disking, prescribed fire, hand pulling) and cutting some meadows on an annual schedule rather than a semi-annual schedule.

There are two forest systems present at BSBHP; Central Appalachian Oak and Pine forest and Southern Piedmont Small Floodplain and Riparian forest. The area along the railroad tracks is dominated by Eastern Redcedar (*Juniperus virginiana*) and is in general good health. The second area is in the general vicinity of the Alabama Cemetery. This area is dominated by oaks (*Quercus spp.*) and hickory (*Carya spp.*) with some ash (*Fraxinus spp.*). This forest stand is in general poor health and shows indications of a forest at the tail end of its succession. This state of decline can be attributed to several factors including a change in the hydrology of the site and heavy browse activity from deer. The large deer population in the area has created a forest stand that is void of understory plants and seedling trees. The change in hydrology to the site is evident in the decline of some trees and the increase in numbers of trees that will tolerate wetter conditions. Native herbaceous plants are also present in this area including Jewelweed (*Impatiens capensis*) and Spring Beauty (*Claytonia virginica*). Managing invasive species will become an increasing management issues as the forest continues to decline. The over all prognosis of this forested area is for significant decline to begin to happen within the next 5-10 years.

3. Soils and Geology

There are 12 soil units mapped on the site by the USDA SCS (table1). The soil in the lower elevations of the site (the west/southwestern half of the property) is mapped as 3A (Albano), 17A (Dulles Silt Loam 0 to 4% slope), 48A (Reaville Silt Loam 0 to 4% slope) and 56A (Waxpool Silt Loam 0 to 2% slope) as depicted on the soils map (Appendix C. 8). Only one of these four low elevation soils (the Albano series) is considered to be a hydric (wetland) soil based on the List of Hydric Soils of Virginia. This does not necessarily indicate wetlands exist in this location, but the probability is high. The other low elevation soils are poorly drained and may contain inclusions of the hydric Albano soil series.

The Albano, Dulles and Reedville soil series have all been formed from Triassic red beds of shale, siltstone and sandstone. The Waxpool series is formed from diabase and basalt rocks.

The soils along the higher elevations are mapped as 4B (Arcola Silt Loam 0 to 4% slope), 5C (Arcola Silt Loam 2 to 7 % slope), 13B (Catlett-Sycoline Complex 2 to 7% slope), 13C (Catlett-Sycoline Complex 7 to 15% slope), 35B (Manassas Silt Loam 2 to 7% slope), 46B (Panorama Silt Loam 2 to 7% slope), 53B (Sycoline-Kelly Complex 2 to 7% slope) and 53C (Sycoline-Kelly Complex 7 to 15% slope). These soils are considered to be upland in nature and moderately drained to well drained.

The Arcola soil series is formed from Triassic and Jurassic interbedded siltstone, shale and limestone. The Catlett-Sycoline soil series is formed from hornfels and granulite of the Triassic area of the Piedmont Plateau. The Manassas soil series is formed the colluvium and residuum found in Triassic red beds. The Sycoline-Kelly soil series are formed from residuum of granulite and hornfels rock of the Triassic and Jurassic Age. The Panorama soil series are formed from red shale, siltstone and sandstone found in Triassic red beds.

4. Topography and Slopes

Topography on the site is gently sloping to the southwest and strongly sloping to the east / southeast. A ridge located in the northeast portion of the property directs drainage toward the southeast and the southwest corners of the battlefield Park. A headwater stream of Broad Run runs through the northwest portion of the property to the southeast. The high probability wetlands areas on the property are primarily associated with the floodplain of the headwater stream.

Slopes range generally from <1% to approximately 10% grade. The steepest slopes of 2% to 10% grade is found along the ridge located at the northeast portion of the site. The highest point of the site is just over 265 feet elevation and is located near the existing homestead. The lowest point of the property is approximately at 200 feet elevation and is located at the southern edge of the site near the headwater stream.

E. Park Access

There are currently three primary points of Park access. The primary visitor entrance is along Iron Brigade Unit Avenue and Tenth Alabama Way. From this entrance, visitors can park their vehicles with access to the information kiosk and walking trails. The majority of the walking paths in the Park have a gravel dust surface, while the Battle of Kettle Run trail is a natural grass surface. Two other locations are primarily used as staff entrances. One at the Sears House along Bristow Road and one next to the Farmhouse along Bristow Road, which provides access to the barns and the Robertson Cemetery. This entrance is also used by the heirs of the Robertson family to have access to the cemetery and must "by right" remain accessible.

F. Existing Facilities

Facilities at the Park are currently limited. The facilities consist of a 3.5 mile gravel dust trail, half a mile grass cut trail and a visitor parking lot with 36 spaces. There is a paved roadway up to the Rambler for maintenance use. In the future, the Rambler may be used as a visitor center and the roadway will provide visitor access and accessible parking. An information kiosk with a park map, short narrative history and brochure rack is located in the visitor parking lot. Visitors can review the kiosk or pick up a printed self-guided interpretive trail map. Numbered posts along the trail correlate to the printed maps to ensure visitors understand the significance of each location in the Park. An electronic podcast narration of the interpretive trails is available on the County's web site www.pwcgov.org

There are several existing structures on the Park.

- Bungalow, ca. 1910, currently vacant, future Work Force Housing Initiative through Prince William County Police Department.
- Farmhouse, ca. 1890, currently vacant, future Work Force Housing Initiative through Prince William County Police Department.
- Rambler, ca. 1960, currently vacant, possible future visitor use building.
- Large Barn, ca. early 20th century, recently renovated and used for maintenance storage.
- Small Barn, ca. early 20th century, currently used for lumber storage.

G. Utilities

The majority of the area surrounding the Park is fully developed with utilities. Future development at the Park can easily access these utilities. All structures are serviced by ground water wells (Rambler, Sears House and Farmhouse). The Rambler has a ground septic system while the Sears House and Farmhouse rely on municipal sewer. The southeastern boundary of the Park is bisected by a municipal sewer line providing sewer service to the New Bristow Village community. Electricity and telephone service are also accessible.

H. Description of Adjacent Properties

The Park is located southwest of Rt. 28 (Nokesville Road) and Rt. 619 (Bristow Road.). Directly adjacent to the north and west of the property is the New Bristow Village residential development. There is a substantial grade difference along the western border of the Park with the development resulting in the surrounding houses and streets being above the Park property. The northeastern portion of the development is below the Park viewshed. Some vegetation exists as a buffer, but the residential neighborhood is visible from most vantage points in the Park.

East of the Park property is Bristow Road (Rt. 619) and a large tract of land owned by the Manassas Assembly of God. The majority of this land is undeveloped, except for the front portion (along Rt. 28) where the church facility and parking lot is located. This area is where Confederates under Brig. Gen. Kirkland made his initial assault toward Broad Run and then later toward the railroad track.

Railroad tracks (historic location of the Orange and Alexandria RR) run along south of the Park. The property on the other side of the railroad tracks is largely farmland with various crops. Near the intersection of Bristow Road, and the railroad tracks the historic village of "Bristow" or "Bristoe Station" is located. There are several buildings that are being currently being considered contributing structures to the area's National Register of Historic Places potential listing. These buildings all date from the post-Civil War period up to the 1960s. Also near this area is the monopole cellular phone tower that was constructed in 2008 near the Norfolk Southern Railway crew changing station. This monopole can be seen from all areas of the Park.

IV. MANAGEMENT AND DEVELOPMENT

A. Cultural Resource Management

BSBHP retains a sizable portion of the core of two Civil War battlefields, cemeteries and possible encampment. Also, the Park's mission includes interpreting the village of Bristoe and its residents. Current interpretation on site is provided by a visitor kiosk, self guided tours (with brochures located in the kiosk), guided tours, pod cast tours and living history programs.

The details of site management should be developed in a separate Cultural Resource Management document and/or Interpretive Plan. The plan should address site management related to erosion control, repair of man made disturbances, monitoring for relic hunting activities, restoration of the historic view shed when possible (to include selective removal of trees, partial re-establishment of the agricultural fields present at the time of the Civil War) and site enhancements.

Future interpretation and visitor services will also be included in the Cultural Resource Management and Interpretation Plans. Site interpretation will be provided on site and through a combination of signage, panels, reconstructed field fencing, view sheds to orient visitors and programs designed to commemorate events and educate the public and special groups.

Currently, several policies are in place through Prince William County and the Commonwealth of Virginia that relate to cultural resource management at the Park. These include the Prince William County Department of Public Works (Historic Preservation Division) Collections Management Policy (2006, amended

*Bristoe Station Battlefield Heritage Park
General Management Plan*

2009), Pest Management Standards and other applicable Public Works Department Policies and Standards. Also, the Virginia State Department of Historic Resources (DHR) holds an easement over the entire Park. Any major changes, disturbances, uses of the Park or enhancements must be approved by DHR beforehand. In every instance in dealing with cultural resource management, the highest professional standards will be followed. The Park encompasses many sensitive resource areas, including cemeteries, so the strict guidelines must be enforced.

B. Natural Resource Management



The natural resources at BSBHP consist of several small forest stands, open meadows, manmade ponds, hedgerows, and a perennial stream. Some of the forest stands will be maintained by removing dangerous trees and some clearing to allow for interpretation of the cultural resources. Meadows will be maintained to protect the natural resources of the Park, as well as allow for interpretation of cultural

resources. Meadow maintenance will include, haying, prescribed burns, establishment of native warm season grasses and the removal of invasive plant species. The areas of the resource indicated as meadow will not be mowed on a regular basis. The meadows will be maintained in accordance with generally accepted meadow management procedures. Appendix B.4 “Managing Land in the Piedmont for the Benefit of Wildlife” second edition 2008 will be used as a guide for meadow management. Invasive plant species control and removal will also take place in forest stands and along hedge rows. Invasive plant species control is a large problem throughout the County. The Historic Preservation Division does not have adequate resources to address the issue in all the parks/ sites. Invasive plant removal projects may be carried out by volunteers or as a special project.

An exotic or invasive species is defined as any species not native to a geographic area. Invasive species are often present as naturalized species or are planted as landscape trees and shrubs. An invasive species is one that escapes from cultivation, spreads rapidly and occurs in greater abundance than may be desired. If not actively managed, these species may displace other native plant species.

To date five exotic species have been identified as within BSBHP are potentially invasive. The species are multiflora rose, Japanese honeysuckle, garlic mustard, tree of heaven, and English ivy.

There are no known wildlife concerns at BSBHP. The Historic Preservation Division is aware of several species that are known to occur within the area of Park that are listed as Special Status Faunal Species by the Virginia Department

of Game and Inland Fisheries. Special Status Faunal Species are threatened or endangered species. Careful monitoring by staff and volunteers will take place.

C. Desired Visitor Experience

Visitors will come from both the local community and from national and international travelers. Programming will be designed to meet the diversity of these audiences.

The desired visitor experience at the Park is for visitors to:

- Learn the history, significance and circumstance of the Battle of Kettle Run and Bristoe Station
- Learn about the tactical strategies of both battles.
- Learn the history, significance and circumstance of Camp Jones.
- Observe and respect the cemeteries of Confederate soldiers.
- Learn and observe the natural history of the County.
- Participate in regularly scheduled interpretive tours, school and youth programs.
- Experience occasional special events, living history, and ceremonies.

D. Interpretation and Visitor Services

1. Information and Interpretive Media

Current interpretation at the Park includes two self guided walking trails (*AP Hill's Folly Trail and Tragedy in Camp/Battle of Kettle Run Trail*). A brochure guides visitors along these trails with stops at numbered posts. Visitors can then read the historical information for each stop. Staff is planning to create a series of interpretative signs based on the current brochures. This will allow for images and maps to enhance the visitor experience. Although signage is more expensive up front, the signs cut down on the production of paper brochures and guarantees public interpretation when no brochures are present. One of the interpretative signs should address how this park ties in with other local historical sites and regional Civil War sites. The use of new social media is planned to meet the needs of current and future technologies. A podcast of the battles has been developed. Future projects include cell phone tours and other new media.

Interpretive materials is made available through the County website, Civil War Trials website, the local Convention and Visitors Bureau website, the Prince William Historic Preservation Foundation website and social media pages. This includes downloadable pdfs of maps, brochures, video tours, video documentaries and pod cast tours.

2. Integration with other Civil War Sites

*Bristoe Station Battlefield Heritage Park
General Management Plan*

It is the goal of the Prince William County Historic Preservation Division to integrate BSBHP into the statewide and regional network of Civil War heritage sites. Through programs such as the multi-state Civil War Trails and cooperative efforts with the National Park Service (specifically Manassas National Battlefield Park), Bristoe will become part of a very diverse and deep Civil War story in Prince William County and Virginia as a whole. Furthermore, the Prince William County/City of Manassas Sesquicentennial Committee created the Prince William Civil War Heritage Trail. This effort links all the Civil War resources that are publicly accessible through Prince William County and the City of Manassas. Bristoe will be a critical part of this program.

Programs such as Civil War Trails have shown that providing standardized recognizable signage improves public knowledge of history. It increases awareness and support for preservation and maintenance of the sites. These programs also boost the local economy due to increased tourism.

Prince William County is one of the richest localities when it comes to Civil War heritage. Through marketing, tours and outreach programs, it is the desired outcome to have Bristoe Station become a destination for heritage tourists and educational groups. Programs, web sites, visitor information, tours and other media will also promote other Civil War related sites within the region, especially Prince William County and the City of Manassas. With the statewide commemoration of the Civil War Sesquicentennial, this effort of integrating with other local Civil War sites will be a major focus of the Park.

E. Site Considerations

BSBHP will be impacted by the high density built environment that surrounds the site. One concern is the visual impact associated with the New Bristow Village development in particular those houses along General Kirkland Drive, which border the Park on its western side. General Kirkland Drive is topographically higher than the Park land along the boundary. A few trees and shrubs help to soften the view from the Park along General Kirkland Drive. Plantings will only be considered based off of historical research and development of a Cultural Landscape Plan.

A second issue of concern is the proposed development of the parcel on the north side of Bristow Road as a commercial property. Increased traffic noise and additional development within the view shed will have a direct impact on BSBHP.

Unauthorized paths from the surrounding residential developments that provide direct access to the Park are another concern. These paths have resulted in damage to existing vegetation and provide access for illegal

dumping. To date, there is evidence of illegal dumping of tree limbs, grass cuttings and discarded landscaping materials.

V. MANGEMENT FRAMEWORK

The management framework integrates research, site analysis and basic data presented in this document. Management zones have been defined to provide a framework for future decision making and provide choices within a range of potential uses for each management zone. Existing uses, conditions and recommendations from Prince William County staff were considered in the development of the management zones. Use Areas are also detailed in certain areas of the Park. A zone map is located in the appendix.

A. Cultural Resource Protection Zone (CRPZ)

The entire Park will be treated as a valuable cultural resource and protected as a resource protection zone. The CRPZ will be maintained to protect the cultural resources located in the zone. In-holdings within the park will be maintained with a 25 foot wide buffer based on the Department of Public Works Landscape Management Plan.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Research
- Resource Management

B. Natural Resource Protection Zone (NRPZ)

The entire Park will be treated as a valuable natural cultural resource and protected as a resource protection zone. The NRPZ will be maintained to protect the natural resources located in the zone. Professional practices to foster native wildlife and plant life will be instituted. These practices will be in accordance to guidelines prescribed in *Managing Land in the Piedmont of Virginia for the Benefit of Birds and Other Wildlife* (written by the Virginia Dept. of Game and Inland Fisheries with the Piedmont Environmental Council). In-holdings within the park will be maintained with a 25 foot wide buffer based on the Department of Public Works Landscape Management Plan.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Research
- Resource Management

C. Interpretative Use Area

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Provides visitors with a variety of uses that are associated with the various resources of the Park. The main focus of this area will be to orient visitors to the Park, interpret its resources and provide program space for special programs and events. This area also includes the park trail network, House/Rambler and parking lot areas. The area within this zone will be landscaped according to the Department of Public Works Landscape Management Plan. In depth surveys will be undertaken prior to any land-disturbing activity.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Cultural Demonstrations
- Low Impact Recreation
- Visitor Entrance
- Research
- Resource Management
- Resource Protection
- Support Infrastructure

D. Park Operations Use Area

This area provides staff the ability to support the functions of the Park and the Historic Preservation Division. This area includes the Bungalow, Farmhouse, Barn and Shed area in the southeastern section of the Park. The Barns are maintenance support buildings, the Farmhouse and Bungalow will be future lease space for the Prince William County Police Department, providing security to the Park. The area within this zone will be landscaped according to the Department of Public Works Landscape Management Plan. In depth surveys will be undertaken prior to any land-disturbing activity.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Cultural Demonstrations
- Park and Division Maintenance Support
- Research
- Resource Management
- Resource Protection
- Staff Entrance
- Support Infrastructure

E. Glossary of Uses

1. Historic Restoration

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Includes restoration of the historic landscape (ground cover, structures and view sheds) as defined by the Park's historic period of significance (1861-1865). This information will be based on historic research and with great care to protect all existing cultural and natural resources.

2. Interpretation and Education

Involves communicating information specific to the significance of the Park. These include the unique characteristics of the resources associated with the Park and the relationships of humans and natural systems. Also these activities should strive to increase visitor enjoyment and involvement in resource protection. Interpretative programs and educational workshops, brochures, displays and signage at the Park are methods of conveying this information and are critical tools to interpretation and education.

3. Cultural Demonstrations

Cultural demonstrations that are allowed within the Park include living history programs, replicated military encampments, and weapons firing demonstrations. Allowed cultural demonstrations must follow all policies and guidelines defined in the *Historic Preservation Collections Management Policy* and the Historic Preservation Division's *Guide to the Development of Historic Weapons Programs*. Battle re-enactments are prohibited in all cultural landscapes managed by the Historic Preservation Division.

4. Low Impact Recreation

Recreational activities will cause minimal disturbance to the Park's natural and cultural resources. These activities will require little if any infrastructure. Also, activities must be in accordance to respect of the nature and mission of the Park.

5. Park and Maintenance Support

Uses associated with Park operations, maintenance and staff support, including equipment and maintenance supply storage, interpretative storage, staff offices/break area and other functions to support Park activities.

6. Research

Staff investigation aimed at the discovery and interpretation of facts, the revision of accepted theories or the development of practical applications in light of new facts. One time, periodic or ongoing research could include archaeological and historic surveys and studies, water and air quality

*Bristoe Station Battlefield Heritage Park
General Management Plan*

monitoring studies and vegetation and wildlife inventories. Public agencies, educational organizations, professional consultants or volunteers would be authorized by Prince William County to conduct this work.

7. Resource Management

Staff will increase the understanding of natural processes, recognition of human influence upon the land and the need for stewardship of that land. Resource management plans will establish guidelines for managing natural, cultural, recreational or facility resources existing within the Park. The selection, integrations and implementation of resource management plans and actions will be based upon ecological, sociological and economical consequences of the proposed action on Park resources. These plans and recommended actions may include protections, mitigation, interpretation, monitoring and administration of Park resources.

8. Resource Protection

These uses will support the protection and security of the Park's resources and its visitors, such as providing living space for a uniformed Prince William County police officer and or staff.

9. Support Infrastructure

The development of necessary infrastructure to support Park operations and activities, such as a visitor center, administrative and maintenance facilities, roads, trails, parking areas, utilities etc.

VI. APPENDIX

A. References

Berkoff, Todd. "A. P. Hill's Bloody Assault." *America's Civil War*, September 2003, Weider History Group, Leesburg, VA.

Carter, Thomas N. *Plat of the Property of the Late Major Hunton*. July 3, 1854. Original document lost. Copy available at Prince William County Library System (PWCLS) Digital Library, Historic Sites, Historic Sites Documentation Index, B, Bristoe Station Battlefield, Documents, View 2 at:
http://www.pwcgov.org/library/digitalLibrary/hsdw/B_Folder/BristoeStationBattlefield76-5161/pdfs/BristoeStationBattlefield76-5161DocB.pdf

*Bristoe Station Battlefield Heritage Park
General Management Plan*

Gardner, William M., Kimberly A. Snyder and Gwen Hurst. *Phase I Archaeological Investigations of New Bristoe Village, Prince William County, Virginia*. December 2000.

Henderson, William. *Road to Bristoe Station: Campaigning With Lee and Meade August 1- October 20, 1863*. H. E. Howard Publishing, Lynchburg, VA, 1987.

Hunter, Darlene L., CGRS. "The Bristoe Tract—Rent Rolls, Map and History." *Prince William Reliquary*, October 2004 Vol. 3, No. 4. RELIC, Bull Run Regional Library, Manassas, VA.

Melia, Bob and Annette L/ Snapp. *Archaeological and Infra Red Thermal Imaging Investigation of Cemeteries at Bristoe Station Battlefield, Prince William County, Virginia*. June 2001.

Miller, Michael. "Bristoe Station." *Blue and Gray Magazine*, August, 2009, Vol. XXVI, No. 2. Blue and Gray, Columbus, OH.

O'Neill, Partick L.. "Two Extraordinary Surveys: The 1737 Brent Town and 1824 Bristow Tract Maps." *Prince William Reliquary*, April 2007, Vol. 6, No. 2. RELIC, Bull Run Regional Library, Manassas, VA.

Prince William County Deed Book (PWCDB) 24:412. John Caldwell to Thomas K. Davis, November 8, 1858.

Prince William County Deed Book (PWCDB) 31:212. Aylett Nicol to James T. Davis, October 10, 1877.

Prince William County Deed Book (PWCDB) 32:194-195. J. J. Davies to James M. Snook, December 14, 1877.

Prince William County Deed Book (PWCDB) 34:508. J. J. Davies to John A. Brawner, February 26, 1884 cites two tracts that Brawner purchased on August 29, 1870.

Prince William County Deed Book (PWCDB) 36:31. Deed to John A. Brawner, August 29, 1870.

Prince William County Department of Public Works historic Preservation Division. *Historic Preservation Collections Management Policy*. January 11, 2010. Supersedes: October 12, 2006.

Prince William County Department of Public Works historic Preservation Division. *Guide to the Development of Historic Weapons Programs*. 2008.

*Bristoe Station Battlefield Heritage Park
General Management Plan*

U.S. Southern Claims Commission Allowed Claims, 1871-1880:

George W. Robertson. Claim # 43,062. May 14, 1873. NARA Roll 35, Target 10. pp 533-561.

Isaac P. Baldwin. Claim # 36,641. December 1, 1873. NARA Roll 34, Target 9. pp 516-541.

James Nokes. Claim # 11,990. May 17, 1871. NARA Roll 35, Target 9. pp. 465-532.

Michael M. Roseberry. Claim # 1,428. October 17, 1871. NARA Roll 35, Target 13. pp. 672-748.

Rebecca Sexsmith. Claim # 36,650. October 31, 1873. NARA Roll 35, Target 15. pp. 791-853. (NARA Sexsmith)

William R. Snow, Thomas M. Smith and J.C. Wilson. Claim # 18,407. April 15, 1873. NARA Roll 35, Target 17. pp. 897-952.

Charles Thatcher. Claim # 16,339. September 7, 1872. NARA Roll 35, Target 19. pp. 981-1015.

Arthur F. Woodyard. Claim # 1,391. May 23, 1871. NARA Roll 36, Target 4. pp. 152-185.

U.S. Southern Claims Commission, Disallowed and Barred Claims, 1871-1880:

Thomas K. Davis. NARA RG 123, U.S. Court of Claims, Cong. Jur. #3575, Thomas K. Davis, Box 475, 16E3/08/23/03. 258 pages. (NARA Davis)

Veness, Beverly R. "Index to Agriculture Schedule, Prince William County, VA. 1880." *Prince William Reliquary*, October 2003, Vol. 2, No. 4. RELIC, Bull Run Regional Library, Manassas, VA.

B. Support Documentation

1. Park Proffer Documentation
2. DHR Easement
3. Managing Land in the Piedmont for the Benefit of Wildlife

C. Maps

1. 1824 Bristow Tract Overlay
2. 1861 Davis Farm Overlay
3. 1878 Landowners Overlay
4. 1937 Aerial Map Overlay
5. Battlefield Core and Study Area
6. Park Area Zoning Districts
7. Proposed Trails and Corridors
8. Park Soils
9. Current Park Map (w/trails)
10. Management Zone Map

PROFFER STATEMENT

REZ: #2001-0157

New Bristow Village

- 3.3 Development of the Heritage Park shall be generally as shown on the Illustrative Development Plan, and shall be subject to the review and approval of the aforesaid Architectural Review Board and the County, except that minor adjustments to the trail system, interpretive center, interpretive signage, parking lot, shelters or related features may be permitted with approval of the Planning Director.
- 11.2. The area shown on the Illustrative Development Plan shown as a Heritage/Open Space Park shall be transferred in fee simple and without cost to the Civil War Preservation Trust, for the purpose of preserving the view shed of the locations where significant civil war activities took place, and to be used as a public historic resources park; provided that the Applicant shall be permitted to retain suitable easements for the purposes of construction of the utility lines including sewer and water lines, and any lift station that may be required to provide adequate sewer service to the Property. The design of any such lift station shall be manually agreeable to the Applicant and to the Trust.
- 11.3. Alternatively such areas may be dedicated to a nationally-recognized organization trust specializing in the preservation of historical properties.
- 11.8. The Heritage/Open Space Park shall be operated as a public park by the Civil War Preservation Trust or its designee, and shall be subjected to a conservation easement granted to the Virginia Outdoors Foundation, an agency of the Commonwealth of Virginia, in a form mutually acceptable to the Civil War Preservation Trust and the said Foundation, in a form substantially similar to that attached hereto as Attachment A and as approved by the County Attorney. Maintenance of the park shall include mowing and landscape maintenance on a regular schedule, generally consistent with the schedule to be maintained for the residential sections of New Bristow Village.

**BASELINE DOCUMENTATION REPORT
SUPPLEMENTAL STATEMENT
ACKNOWLEDGEMENT FORM**

The attached Supplemental Statement to the Baseline Documentation Report describes the character and condition of the property placed under historic preservation easement by deed from the Grantor to the Virginia Board of Historic Resources. This report contains baseline documentation that will serve as reference in monitoring the easement as required by Treas. Reg. § 170A-14(g)(5).

The Grantor and Grantee acknowledge that this report accurately reflects the character and condition of the property subject to the easement referenced above as of the date of this document.

GRANTEE: VIRGINIA BOARD OF HISTORIC RESOURCES

By: Wendy Musumeci Date: 02/22/10
Wendy Musumeci
Easement Program Coordinator, Virginia Department of Historic Resources

GRANTOR: PRINCE WILLIAM COUNTY

By: _____ Date: _____
Brendon Hanafin
Historic Preservation Division Chief
Prince William County

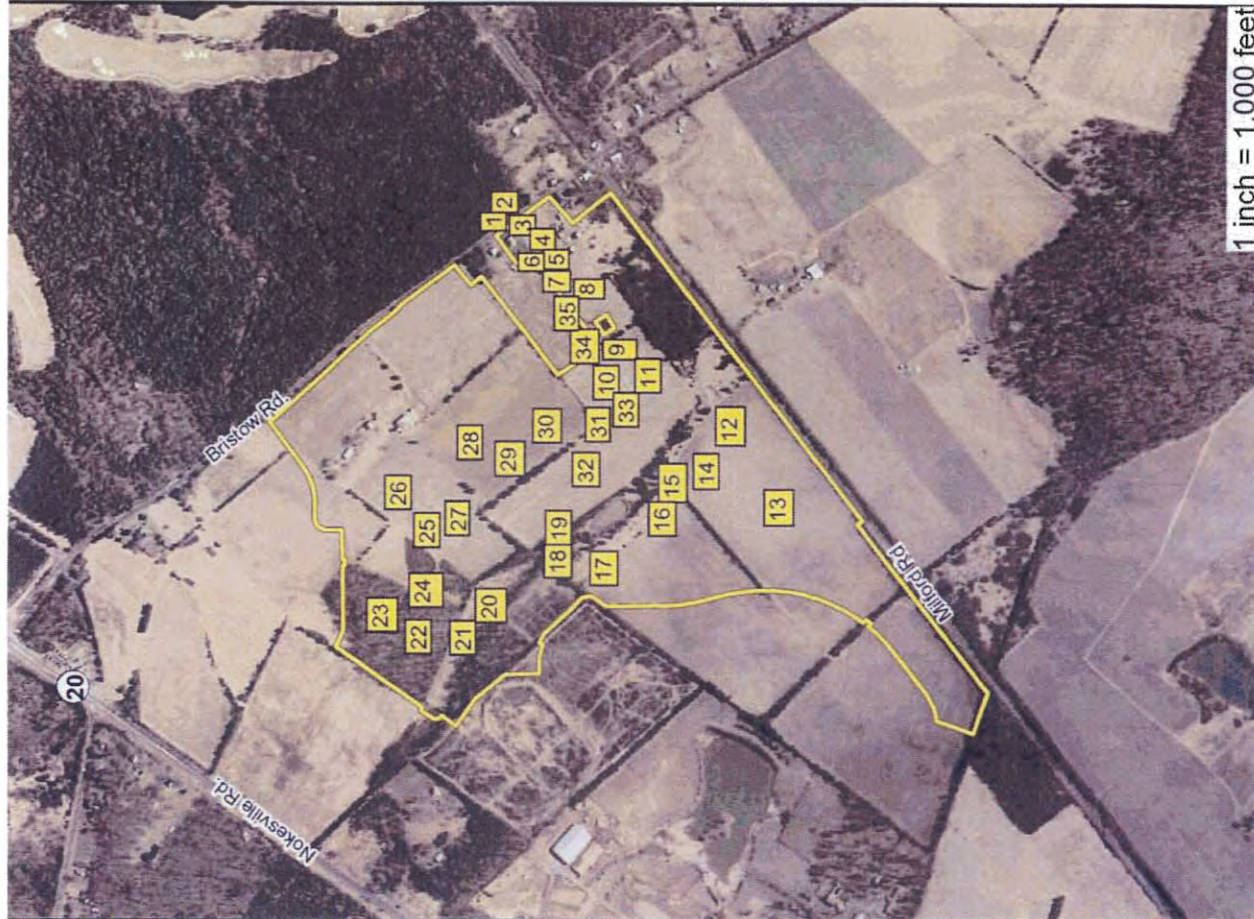
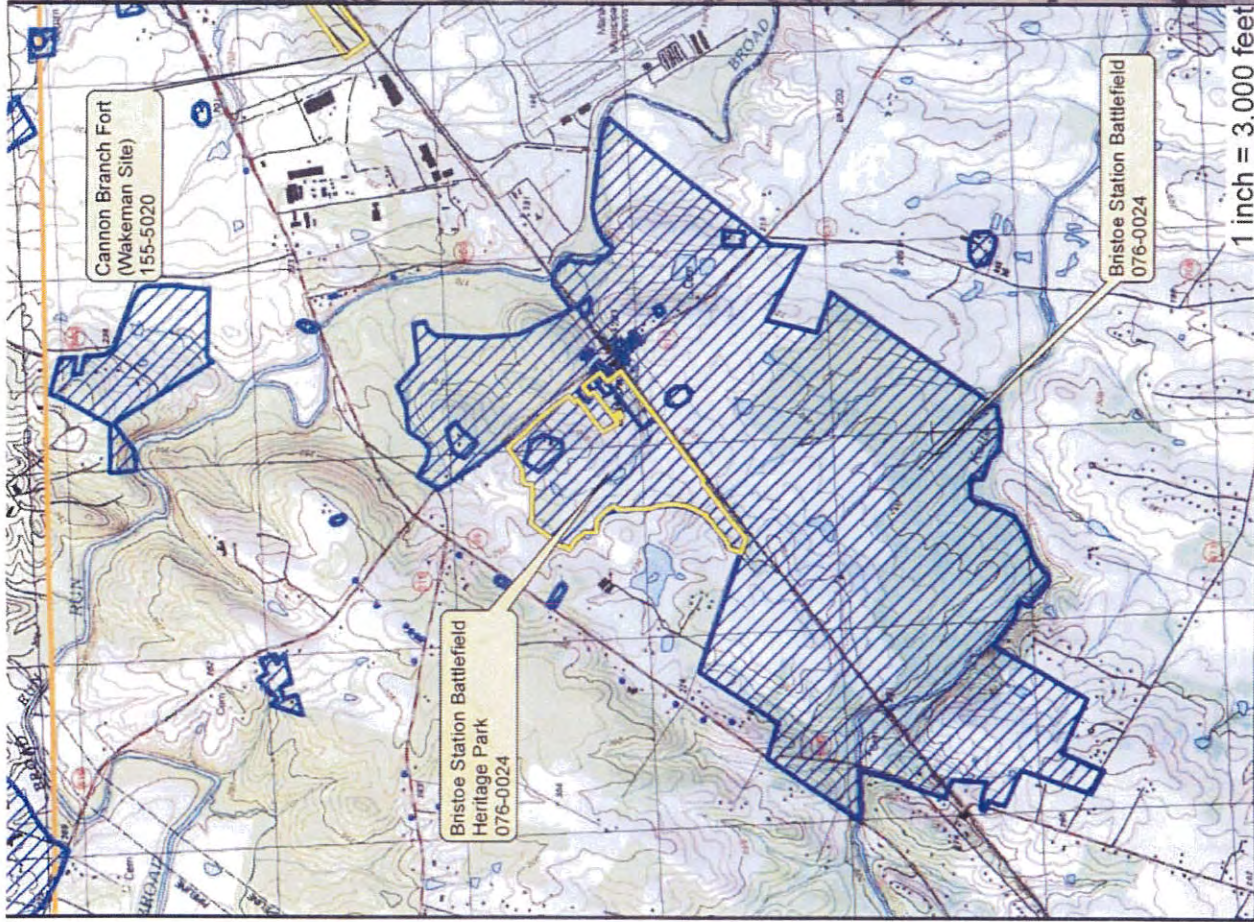
Baseline Documentation Report (BDR) Supplemental Statement

Property: Bristoe Station Battlefield Heritage Park	County: Prince William	Acres: 133.3841
DHR File No: 076-0024	Co-Holder: None	
Supplemental Information:		
The pole frame storage shed, identified as Photograph #11, Negative Number 24390 in the Baseline Documentation Report dated October 2009, was demolished and removed prior to recordation of the easement on October 20, 2009. This non-historic structure was removed from the site for safety reasons due to its deteriorated condition and partial collapse. The Baseline Documentation Report signed at the time of recordation did not reflect this removal. This Supplemental Statement is intended to correct the previously signed Baseline Documentation Report to reflect that this building is no longer standing on the property.		
Existing Principal Buildings, Structures, and Sites:		
Description of Existing Buildings: Indicate Contributing/Non-Contributing, Size, Type, and Location:		
The following buildings, outbuildings, and structures exist as of the date of this Supplemental Statement: one (1) single-family dwelling known as the "Layton Farmhouse;" one (1) "Sears" style bungalow dwelling currently used as office space; one (1) existing vacant brick ranch dwelling; one (1) tile block silo; one (1) two-story gable-roof barn with attached open shed; one (1) gable fronted frame barn with central work area and flanking sheds; (2) two ponds from previous dairy farming activity; one (1) building foundation located adjacent to the brick ranch dwelling		
Property Information:		
Property Address: 10708 Bristow Road, Bristow, Virginia, 20136		
Directions: From Richmond, take I-95 North to Exit 152B, Route 234 North toward Manassas. Stay on 234-North for 7.6 miles and turn left onto VA-619/Bristow Road. Travel for 8.4 miles on Bristow Road. The park will be on your left.		
Owner Mailing Address: Brendon Hanafin, Historic Preservation Division Chief, Prince William County Historic Preservation Division, 10764 Main Street Dumfries, VA, 22025		
Phone: 703-792-4754 Fax: 703-580-7654	Email: bhanafin@pwcgov.org	
Alternate Contact: David Born, Site Manager	Phone: 703-257-5243; dborn@pwcgov.org	
Attachments:		Notes:
Photographic Documentation:	☒	Printed black and white archival photograph
Maps:	☒	Photopoint Map
Other:	☒	Email statement from property owner

The following pole frame storage shed, identified as Photograph #11 on Negative Number 24390, has been demolished and removed from the property:



11. Exterior, Shed Roof Storage Shed, Southwest Property Boundary



Bristoe Station Battlefield Heritage Park - Easement **Prince William County, Nokesville Quads** **DHR# 076-0024**

PHOTOPOINT MAP

- DHR Easements
- Registered (State or National)
- Surveyed
- USGS Grid Lines



Sources: VDH-2009 USGS 2002, Nat. Geographic 2003, USOT 2007
 The map is based on the Virginia Department of Historic Resources (DHR) data and may not reflect current ground conditions. The map is for general illustration purposes and is not intended for engineering, legal or other site-specific uses. The map may contain errors and is provided "as-is". Contact DHR for the most recent information as data is updated continually.



Created by: D. Bascone October 6, 2009

Musumeci, Wendy (DHR)

From: Hanafin, Brendon C. [bhanafin@pwcgov.org]
Sent: Wednesday, February 10, 2010 1:38 PM
To: Musumeci, Wendy (DHR)
Subject: Bristoe easement

Dear Wendy,

I hope that you are faring well in the snow. Although we are concerned about the roof of Rippon Lodge, our properties are surviving. Last summer we demolished the remaining portions of a small pole shed at Bristoe. A portion of the building had come down and we took the action for safety reasons. The building was photographed by you for the easement record (see below photograph) and was recorded as a standing structure with the approved easement. This was an error on my part. I did not catch the error until reviewing the easement for an upcoming project. Please let me know how you wish to proceed.

We will be sending you details of an upcoming spring project. We wish to install a split rail fence around the parking lot to impede visitors (most importantly relic hunters) from driving on the trails and the over the farm. This will include an entrance sign similar to our other properties. The third part of the project is to but stacked fencing along the property boundary with RT 619 and Iron Brigade Court. We are not sure if we can afford this portion of the project at this time. Once we receive the sign detail, we will send you a formal project document.

Sincerely,
Brendon



11. Exterior, Shed Roof Storage Shed, Southwest Property Boundary

Box 295

This document was prepared by
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, VA 23221

The preparer is unaware of any Title Insurance issued on the property herein conveyed.
GPIN: 7594-68-0311



200910200101775

Prince William County, VA Pgs: 12

10/20/2009 3:46:02PM

Michèle B. McQuigg, Clerk

Exempted from recordation taxes
under the Code of Virginia (1950), as amended,
sections 58.1-811(A)(3) and 58.1-811(D)
and from Clerk's Fees under section 17.1-266

DEED OF GIFT OF EASEMENT

**BRISTOE STATION BATTLEFIELD HERITAGE PARK
PRINCE WILLIAM COUNTY**

VBHR FILE NO. 076-0024

THIS DEED OF GIFT OF EASEMENT made this 14th day of October, 2009,
by **THE BOARD OF COUNTY SUPERVISORS OF PRINCE WILLIAM COUNTY,**
VIRGINIA, a body corporate and politic, ("Grantor"), whose address is: 1 County Complex Court,
Prince William, Virginia 22192, and the **COMMONWEALTH of VIRGINIA, BOARD OF**
HISTORIC RESOURCES ("VBHR"), whose address is: Department of Historic Resources, 2801
Kensington Avenue, Richmond, Virginia, 23221 ("Grantee").

WITNESSETH:

WHEREAS, the Grantor is the owner in fee simple of a property known as Bristoe
Station Battlefield Heritage Park, consisting of a tract of land containing 133.3841 acres, more or
less, as more particularly described below ("The Property"), and desires to give and convey to
Grantee a perpetual historic preservation and open-space easement ("Easement") over the
Property as herein set forth; and

WHEREAS, Grantee is a "qualified organization" and "eligible donee" as defined in IRC
§170(h)(3) and Grantee is a qualified public body under the Open Space Act, and as an agency of
the Commonwealth of Virginia authorized under Chapter 22, Title 10.1 of the Code of Virginia
of 1950, as amended, to receive properties and easements in gross or other interests in properties
for the purpose of, among other things, the preservation and protection of such designated
landmarks; and the Grantee, as an agency of the Commonwealth of Virginia, has the resources to

enforce the restrictions in this Easement; and

WHEREAS, the Open Space Land Act of 1966, Chapter 461 of the 1966 Acts of the Assembly, (Chapter 17, Title 10.1, §§10.1-1700 to 10.1-1705 of the Code of Virginia of 1950, as amended), declares that the preservation of open-space land, including land preserved for historic or scenic purposes, serves a public purpose by promoting the health and welfare of the citizens of the Commonwealth by curbing urban sprawl and encouraging more desirable and economical development of natural resources, and authorizes any public body to receive easements in gross or other interests in properties for the purpose of preserving such historic or scenic open-space lands; and

WHEREAS, Article XI of the 1971 Constitution of the Commonwealth of Virginia declares the preservation of historic properties and sites to be a goal and obligation of State government, and Section 1 "Natural resources and historical sites of the Commonwealth," provides that "[I]t shall be the policy of the Commonwealth to conserve, develop, and utilize its natural resources, its public lands and its historic sites and buildings. Further, it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment and general welfare of the people of the Commonwealth"; and

WHEREAS, upon portions of the Property is situated the battlefield where the Battle of Bristoe Station occurred on October 14, 1863 of the Civil War, in which Confederate forces led by General A.P. Hill attacked what they thought was a small portion of the Union Army located near the railroad tracks at Bristoe Station; and

WHEREAS, the Confederate Army rushed into the Union trap and sustained heavy losses from the Union forces, many of whom had been concealed by the railroad cut, in the last offensive effort by the Confederacy in northern Virginia; and

WHEREAS, the Property also includes two cemeteries related to Confederate camps during the winter of 1861; and

WHEREAS, the Property was acquired by the Grantor for the purposes of preserving it as a Civil War Battlefield and passive recreational park; and

WHEREAS, the Bristoe Station Battlefield Heritage Park is situated on Bristow Road in Prince William County, Virginia, which is an important public transportation corridor and the Property represents publicly significant scenic open space in that corridor; and

WHEREAS, the 2008 Prince William County Comprehensive Plan, adopted by the Board of Supervisors on March 18, 2008, recognizes Bristoe Station Historical Area as a significant historic site, and sets forth as an objective to "apply mitigation measures to all new

development within the Bristoe Station Historical Area” and to encourage property owners “to provide historic resource easements” in recognition of the Battle of Bristoe Station and other significant use of the area during the Civil War, said easements to be in the general locations as identified in the said Comprehensive Plan; and

WHEREAS, in connection with the rezoning of a property located within the area identified as Bristoe Station Historical Area in the Comprehensive Plan (REZ #PLN 2001-0157), an area on the said property, identified as Parcel V, Phase 1, Section 1, New Bristow Village, now a portion of the Property, was designated as Heritage/Open Space Park for purposes of preserving the view shed of the locations where significant Civil War activities took place and for preserving said area as an historic, scenic and open space resource for the benefit of the public; and

WHEREAS, the Grantor and the Grantee desire to protect in perpetuity the historic, archeological, open space, and scenic values herein specified (“Conservation Values”); and

WHEREAS, the Grantor and the Grantee intend to accomplish such protection by restricting the use of the Property as hereinafter set forth; and

WHEREAS, the Grantee has determined that the Restrictions (the “Restrictions”) hereinafter set forth will preserve and protect in perpetuity the historic, archeological, open space and scenic and values of the Property, which values are reflected herein and in the Grantee’s evaluation of the Property, and the documentation of the condition of the Property is contained in its respective files and records; and

WHEREAS, the conservation purpose of this Easement is to preserve and protect in perpetuity the historic, archeological, open space and scenic values of the Property; and

WHEREAS, the Grantee has determined that the Restrictions will limit the uses of the Property to those uses consistent with, and not adversely affecting, the historic, archeological, open space, and scenic values of the Property and the other governmental conservation policies furthered by this Easement; and

WHEREAS, Grantee, by acceptance of this Easement, designates the Property as property to be retained and used in perpetuity for the preservation and provision of open-space land pursuant to the Open-Space Land Act; and

NOW THEREFORE, in recognition of the foregoing, the Grantor does hereby grant and convey to the Grantee an Easement in gross over and the right in perpetuity to restrict as herein provided the use of the Property, more particularly described as follows:

The Property over which the Easement is conveyed consists of a total of approximately

133.3481 acres, being all of the same property that was conveyed to Grantor pursuant to that Deed of Gift, Transfer, Consolidation, and Easement recorded as Instrument No. 200606290097567 among the land records of Prince William County, Virginia.

The Property is shown as PIN Number 7594-68-0311 among the land records of the County of Prince William, Virginia. Even if the Property consists of more than one parcel for real estate tax or any other purpose, it shall be considered one parcel for purposes of this Easement, and the restrictions and covenants of this Easement shall apply to the Property as a whole.

AND SUBJECT, HOWEVER, to the restriction that the Grantee may not transfer or convey the Easement herein conveyed to the Grantee unless the Grantee conditions such transfer or conveyance on the requirement that (1) all restrictions and conservation purposes set forth in the conveyance accomplished by this deed are to be continued in perpetuity, and (2) the transferee is an organization then qualifying as an eligible donee as defined by section 170(h)(3) of the Internal Revenue Code of 1986, as amended, and the applicable Treasury Regulations promulgated there under.

The restrictions hereby imposed on the use of the Property are in accord with the policy of the Commonwealth of Virginia, as set forth in Chapters 22 and 17 of Title 10.1 of the Code of Virginia of 1950, as amended, to preserve the Commonwealth's designated historic landmarks, and to preserve historic and scenic open-space lands in the Commonwealth. The acts which the Grantor covenants to do and not to do upon the Property, and the restrictions which the Grantee is hereby entitled to enforce, shall be as follows:

- 1. BASELINE DOCUMENTATION:** The parties agree that the photographs of the Property taken by Wendy Musumeci of the Virginia Department of Historic Resources on October 17, 2008 (Virginia Department of Historic Resources negative number 24390) accurately document the appearance and condition of the Property as of the date of this Easement. The negatives of the photographs shall be stored permanently in the archives of the Virginia Department of Historic Resources, which is located at 2801 Kensington Avenue, Richmond, Virginia, or its successors. Hereafter, the Property shall be maintained, preserved, and protected in its documented state as nearly as practicable, except for changes that are expressly permitted hereunder. The Grantor warrants that it has made available to the Grantee, prior to the time the donation is made, baseline documentation sufficient to establish the condition of the property at the time of the gift. Such documentation is designed to protect the conservation interests associated with the property, which, although protected in perpetuity by the Easement, could be adversely affected by the exercise of the reserved rights. The parties agree that the Baseline Documentation Report supplied and contained in the files of the Grantee accurately describes the condition and character of the Property at the time of this Easement. The Baseline Documentation Report may be used to determine compliance with and enforcement of the terms of this Easement; however, the parties are not precluded from

using other relevant evidence or information to assist in that determination.

2. **PERMITTED BUILDINGS AND STRUCTURES:** No building or structure shall be built or maintained on the Property other than:
- (i) the three (3) dwellings known as the brick ranch Rambler, "Sears bungalow", and the "Layton Farmhouse" which exist on the date of this Easement; the brick ranch Rambler may be maintained at its current location or demolished and replaced; any replacement dwelling shall be subject to the provisions of Paragraph 3 below; and
 - (ii) the following historic outbuildings and structures which exist on the date of this Easement: two (2) barns, one (1) storage shed and one (1) silo; and
 - (iii) other non-residential outbuildings or structures commonly or appropriately incidental to the dwellings permitted in subsection (i); and
 - (iv) farm buildings and structures, commonly or appropriately incidental to rural farming activity; for the purposes of this subparagraph, a farm building or structure shall mean a building or structure originally constructed and used for the activities specified in paragraph 4(ii); and
 - (v) reconstructions of historic buildings or structures which are documented through professional historical or archaeological investigation to have been located on the Property, which shall be consistent with and evaluated according to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, specifically, the *Standards for Reconstruction*; and
 - (vi) amenities such as walking trails, footpaths, parking facilities, signs, and markers appropriate for the preservation, maintenance, exhibition, and interpretation of the Property as a Civil War Battlefield. No building, structure, or amenity shall be constructed on the Property without the prior written approval of the Grantee.

The collective footprint of all buildings and structures on the Property, excluding roads, shall not exceed 1% of the total area of the Property, provided that if Grantor can demonstrate that an increase in the collective footprint would result in increased protection of the conservation values protected herein, Grantee may approve such increase. For the purpose of this paragraph the collective footprint is the ground area measured in square feet of the structures set forth in subsections (i) through (vi) above and all other impervious surfaces, excluding roads.

3. **ALTERATIONS AND NEW CONSTRUCTION:** The Rambler, bungalow, farmhouse, three barn structures, and the silo shall not be demolished or removed from the Property, nor shall they be materially altered, restored, renovated, or extended, except in a way that would, in the opinion of the Grantee, be in keeping with the historic, archeological, open-space, and scenic character of the property and consistent with the applicable *Secretary of the Interior's Standards for the Treatment of Historic Properties* and provided that the prior written approval of the Grantee to such actions shall have been obtained.

No other existing or new building or structure shall be constructed, altered, restored, renovated, extended, or demolished except in a way that would, in the opinion of the Grantee, be in keeping with the historic, archeological, open-space, and scenic character of the Property, and provided that the prior written approval of the Grantee to such actions shall have been obtained. The location, size, and design of any new building or structure are expressly made subject to the prior written approval of the Grantee.

4. **INDUSTRIAL AND COMMERCIAL ACTIVITY:** It is the intent of the parties hereto that the Property shall be used as an agricultural, historical, educational, open-space, and recreational resource for the benefit of the public. Industrial or commercial activities other than the following are prohibited: (i) activities that foster the preservation and interpretation of the historic battlefield and accommodation of the public amenities permitted under Paragraphs 2-3 (including (A) snack bar, vending machines or other manner of providing food, and (B) gift shop) (ii) agriculture, silviculture, horticulture, or animal husbandry and (iii) activities related to the preservation, maintenance, exhibition, and interpretation of the Property as a Civil War battlefield, provided that prior to each such event, all archaeological material in affected areas is completely surveyed and preserved in place and avoiding during permitted activities. All such survey work and activities permitted under (iii) of this paragraph shall be reviewed and approved by the Grantee in writing prior to implementation.
5. **DESTRUCTION:** In the event that the residences or any other building or structure named in Paragraph 2 above is destroyed or damaged by causes beyond the Grantor's reasonable control including fire, flood, storm, earth movement, or other acts of God, to such an extent that in the opinion of the Grantee the building's historic integrity is irremediably compromised, nothing herein shall obligate the Grantor to reconstruct the building or return it to its condition prior to such calamity.
6. **ARCHAEOLOGY:** Ground disturbing activity or earth removal may require archaeological survey or investigation, if, in the opinion of Grantee, such ground disturbing activity or earth removal may impact archaeologically significant deposits, sites, or features on the Property. Such archaeological survey or investigation may be undertaken on the Property only if a scope of work for such survey or investigation is reviewed and approved in writing in advance by Grantee and only if said survey or investigation is performed in accordance with the *Secretary of the Interior's Standards for Archeology and Historic Preservation* and under the supervision of a professionally qualified archaeologist. Any such survey or investigation shall be designed to protect, preserve or recover archaeologically significant deposits, sites, or features in the area of the proposed ground disturbing activity. Artifacts and objects of antiquity professionally excavated from archaeological deposits, sites, or features on the Property shall be treated, curated, and preserved according to the Virginia Department of Historic Resources *State Collection Management Standards (March 22, 2007)*. Grantor shall take all reasonable precautions to protect archaeological deposits, sites, or features on the Property from looting, vandalism,

erosion, mutilation, or destruction from any cause.

7. **CEMETERY:** The Property contains two known cemeteries which date to the 19th-century. The Grantor shall take all reasonable precautions to protect these sites from looting, vandalism, erosion, mutilation, or destruction from any cause, pursuant to the provisions of Paragraph 6 above.
8. **TRASH:** Accumulation or permanent dumping of trash, refuse, junk, or any other unsightly or offensive material is not permitted on the Property. This restriction shall not prevent generally accepted agricultural or wildlife management practices, such as creation of brush piles, composting, or the storage of farm machinery, organic matter, agricultural products, or agricultural byproducts on the Property, as long as such practices are conducted in accordance with applicable laws and regulations.
9. **TREES AND VEGETATION:** Management of trees and vegetation on the Property shall be in accordance with sound arboreal, horticultural, and/or agricultural, practices and in such a way that is consistent with the historic, archeological, open-space, and scenic character of the property. Best Management Practices, as defined by the Virginia Department of Forestry, shall be used to control erosion and protect water quality when any timber harvest or land-clearing activity is undertaken. Management, including removal of timber consistent with established forestry practices may be undertaken on forested lands, as well as to clear fallen trees and branches or to fell dead trees that pose a hazard to the permitted buildings and structures. If significant portions of forested land require conversion to open field, such as in the event of a natural disaster or other necessity, the Grantor must receive written approval from the Grantee indicating that the proposed removal of timber will not harm or destroy the battlefield's historic setting, nor any character defining landscape features, nor any archeologically significant deposits, sites, or features within the area to be cleared. Prior to clearing significant portions of forested land, a pre-harvest plan must be approved by the Grantee. If significant portions of the property are to be converted from open space to forested cover with the goal of restoring the landscape to its battlefield appearance based on historic documentation, the Grantor must provide a planting and maintenance plan and receive prior written approval from the Grantee.
10. **TOPOGRAPHY:** Grading, blasting, or earth removal shall not alter the topographic aspect of the Property, except as required in the construction of permitted buildings, structures, or roads. Generally accepted agricultural activities shall not constitute any such alteration. Notwithstanding the foregoing, no grading, blasting, or earth removal is permitted on the Property without prior written approval of the Grantee that it will not diminish or impair the historic, archeological, scenic, or open-space values of the property. Mining by surface mining or any other method is prohibited on the Property.
11. **ROADS AND UTILITY LINES:** The location of any new roads or any new utility lines

that serve permitted buildings and structures on the Property (except over existing rights of way) shall be subject to the prior written approval of the Grantee. The construction by the Grantor of walking trails or footpaths to aid in the historical interpretation of the Property as a Civil War battlefield are permitted, provided the prior written approval of the Grantee has been obtained. Such final approval shall be based on the Grantee's evaluation of the proposal, methodology, and review of detailed site plans and the impact of the proposed project on the Conservation Values associated with the Property.

12. **SUBDIVISION:** The Property shall not be divided, subdivided, or conveyed in fee other than as a single tract.
13. **SIGNS:** No sign, billboard, or outdoor advertising structure shall be displayed on the Property without the consent of the Grantee, other than signs not exceeding nine feet square for any or all of the following purposes: (i) to state the name and address of the property or property owners, (ii) to provide information necessary for the normal conduct of any permitted business or activity on the Property, (iii) to advertise the Property for sale or rental, (iv) to provide notice necessary for the protection of the Property and for giving directions to visitors, and (v) to provide historical interpretation and information to visitors to the Property as a Civil War battlefield site.
14. **PUBLIC ACCESS:** The parties hereby acknowledge that the Property is visible from a public right-of-way Bristow Road and that members of the general public may view the Property from said right-of-way. The Grantor also agrees that photographs of the Property taken by the Grantee for purposes of documenting the appearance, condition, and features of the Property, or for other purposes pursuant to this Easement, may be published or otherwise made available to the public at the discretion of the Grantee. The Grantor further agrees that the Property may be opened to the public, which may be the public at large, or in smaller groups, as designated by the Grantee, for one day from 10 AM to 5 PM every year hereafter, provided that the Grantee makes a written request for such opening by no later than February 1 in any such year. The scheduling of the date for such opening shall be by mutual consent. Any such public admission may be subject to restrictions mutually agreed upon as reasonably designed for the protection of the property. Such admission may also be subject to a reasonable fee. The Grantor also agrees that the Property may be opened by appointment with the Grantor to persons affiliated with educational organizations, professional architectural associations, and historical societies.
15. **INSPECTIONS:** The Grantee and its representatives may enter the Property from time to time, upon reasonable notice to the Grantor, for the sole purpose of inspections and enforcement of the terms of the Easement granted herein.
16. **EASEMENT MARKER:** The Grantee, in its discretion, and upon reasonable notice to the Grantor, may erect at a location acceptable to the Grantor, a single marker or sign, not exceeding two feet by two feet, which states the name of the Grantee and advises that the

Grantee owns the Easement granted herein.

- 17. ENFORCEMENT:** The Grantee has the right to bring an action at law or in equity to enforce the Restrictions contained herein. This right specifically includes the right to (i) require restoration of the Property to a condition of compliance with the terms of this Easement as existed on the date of this Deed of Easement except to the extent such condition thereafter changed in a manner consistent with the restrictions; (ii) to recover any damages arising from non-compliance; and (iii) to enjoin non-compliance by temporary or permanent injunction. The Grantee does not waive or forfeit the right to take action as may be necessary to ensure compliance with this Easement by any prior failure to act and the Grantor hereby waives any defenses of waiver, estoppels or laches with respect to any failure to act by the Grantee.
- 18. APPROVALS:** Whenever a written request for the Grantee's approval is submitted pursuant hereto and the Grantee fails to respond in writing within 30 days of receipt of such request, then the Grantee shall be deemed to have approved the request, and the Grantor may proceed with the action for which approval was requested. Nothing herein shall be construed, however, to require the Grantee to issue a final decision on such request within such 30-day period, provided that such final decisions are issued in as timely a fashion as is practicable under the circumstances. Such circumstances shall include the complexity of the request or proposed project, the amount of information submitted with the initial request, and the need for on-site inspections or consultations. No approval required hereunder shall be unreasonably withheld by the Grantee.
- 19. TRANSFER OF TITLE:** Prior to any inter vivos transfer of title to the Property, excluding deeds of trust given for the purpose of securing loans, the Grantor shall notify the Grantee in writing.
- 20. GRANTEE'S PROPERTY RIGHT:** Grantor agrees that the donation of this Easement gives rise to a property right, immediately vested in Grantee, with a fair market value that is equal to the proportionate value that the perpetual conservation restriction at the time of the gift bears to the value of the Property as a whole at that time.
- 21. CONVERSION OR DIVERSION:** Grantor and Grantee intend that this Easement be perpetual and acknowledge that no part of the Property may be converted or diverted from its open-space use except in compliance with the provisions of Section 10.1-1704 of the Open-Space Land Act which does not permit loss of open-space.
- 22. EXTINGUISHMENT:** Notwithstanding the provisions of Section 10.1-1704 of the Open-Space Land Act, should an attempt be made to extinguish this Easement, such extinguishment can be carried out only by judicial proceedings and only if such extinguishment also complies with the requirements of Section 10.1-1704 of the Virginia Code, IRC Section 170 (h) and applicable Treasury Regulations. In any sale or exchange of

extinguishment can be carried out only by judicial proceedings and only if such extinguishment also complies with the requirements of Section 10.1-1704 of the Virginia Code, IRC Section 170 (h) and applicable Treasury Regulations. In any sale or exchange of the Property subsequent to such extinguishment, the Grantee shall be entitled to a portion of the proceeds at least equal to the proportionate value of the perpetual conservation restriction computed as set forth in Paragraph 20 above, but not to be less than the proportionate value that the perpetual conservation restriction at the time of the extinguishment bears to the then value of the Property as a whole. The Grantee shall use all its share of the proceeds from the sale of the Property in a manner consistent with the conservation purposes of this Easement, of Virginia Code Section 10.1-2200 *et seq.*, of the Open-Space Land Act.

23. **SEVERABILITY:** The invalidity or unenforceability of any provision of this Easement shall not affect the validity or enforceability of any other provision of this Easement or any ancillary or supplementary agreement relating to the subject matter hereof.
24. **DURATION.** This Easement shall be perpetual. It is an easement in gross that runs with the land as an incorporeal interest in the Property. The covenants, terms, conditions, and restrictions contained in this Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property.
25. **COUNTERPART.** This Easement may be executed in one or more counterpart copies, each of which, when executed and delivered shall be an original, but all of which shall constitute one and the same Easement. Execution of this Easement at different times and in different places by the parties hereto shall not affect the validity of the Easement.
26. **DEFINITIONS:** In this Easement "Grantor" shall include Grantor and its successors and assigns, and "Grantee" shall include Grantee and its successors and assigns.

Although this Easement in gross will benefit the public in the ways recited above, nothing herein shall be construed to convey a right to the public of access to or use of the Property, and the Grantor shall retain exclusive right to such access and use, subject only to the provisions herein recited.

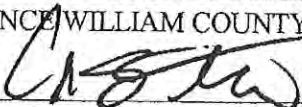
Acceptance by the Board of Historic Resources of this conveyance is authorized by sections 10.1-2204 and 10.1-1701 of the Code of Virginia of 1950, as amended.

Witness the following signatures and seal:

[COUNTERPART SIGNATURE PAGES TO FOLLOW]

[COUNTERPART SIGNATURE PAGE 1 OF 2]

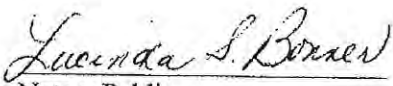
BOARD OF COUNTY SUPERVISORS OF
PRINCE WILLIAM COUNTY, VIRGINIA


Corey Stewart
Chairman

STATE of VIRGINIA
CITY/COUNTY of

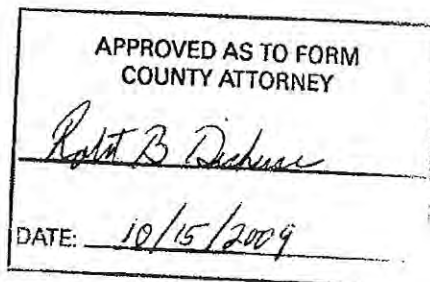
)
, to-wit:

The foregoing instrument was acknowledged before me this 10th day of October, 2009, by Corey Stewart, Chairman of the Board of County Supervisors, Prince William County, Virginia, Grantor therein.


Notary Public

My commission expires: Sept 30, 2012

Registration Number: 160401



[COUNTERPART SIGNATURE PAGE 2 OF 2]

Accepted:
VIRGINIA BOARD of HISTORIC RESOURCES

By: [Signature]
Kathleen S. Kilpatrick
Director, Virginia Department of Historic Resources

Date: 10/14/09

STATE of VIRGINIA)
CITY of RICHMOND), to-wit:

The foregoing instrument was acknowledged before me this 14th day of October, 2009, by Kathleen S. Kilpatrick, Director, Virginia Department of Historic Resources, on behalf of the Virginia Board of Historic Resources, Grantee therein.

Wendy Anne Muscarello
Notary Public

My commission expires: 01/31/2012

Registration Number: 7149196



**BASELINE DOCUMENTATION REPORT
ACKNOWLEDGEMENT FORM**

The attached Baseline Documentation Report describes the character and condition of the property being placed under historic preservation easement by deed from the Grantor to the Virginia Board of Historic Resources. This report contains baseline documentation that will serve as reference in monitoring the easement as required by Treas. Reg. § 170A-14(g)(5).

The Grantor and Grantee acknowledge that this report accurately reflects the character and condition of the property subject to the easement referenced above as of the date of conveyance of the easement.

GRANTEE: VIRGINIA BOARD OF HISTORIC RESOURCES

By: Wendy Musumeci Date: 10/14/09
Wendy Musumeci
Easement Program Coordinator, Virginia Department of Historic Resources

GRANTOR:

By: [Signature] Date: 10/20/09
County of Prince William
Board of Supervisors

APPROVED AS TO FORM COUNTY ATTORNEY
<u>[Signature]</u>
DATE: <u>10/15/2009</u>



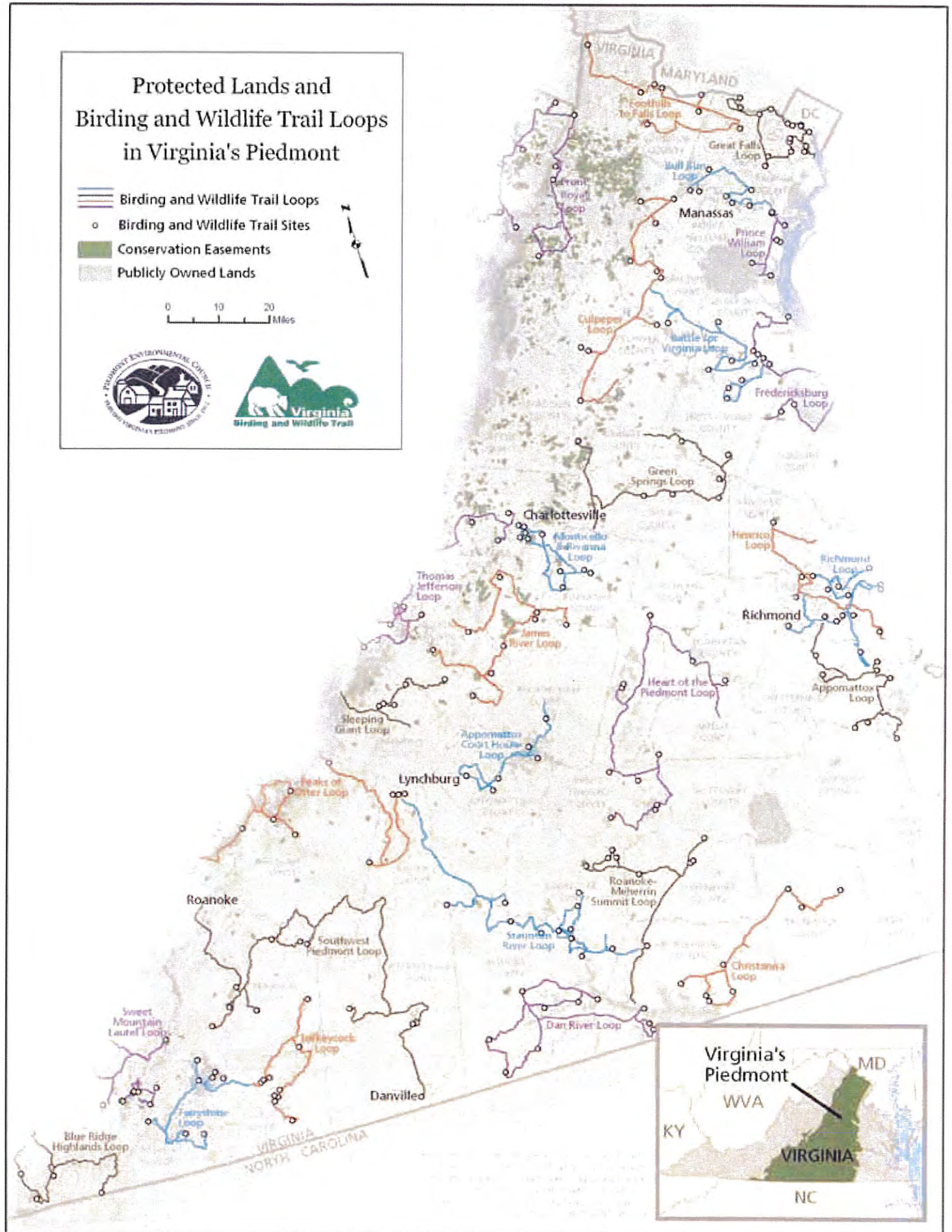
Managing Land in the Piedmont of Virginia for the Benefit of Birds and Other Wildlife



Protected Lands and Birding and Wildlife Trail Loops in Virginia's Piedmont

-  Birding and Wildlife Trail Loops
-  Birding and Wildlife Trail Sites
-  Conservation Easements
-  Publicly Owned Lands

0 10 20 Miles



Managing Land in the Piedmont of Virginia for the Benefit of Birds and Other Wildlife



Authors:

Faren Wolter, Piedmont Environmental Council
Stephen Capel, Virginia Department of Game & Inland Fisheries, retired
David Pashley, American Bird Conservancy
Susan Heath, Gulf Coast Bird Observatory

Second Edition, 2008



American Bird Conservancy

American Bird Conservancy (ABC) is the only 501(c)(3) organization that works solely to conserve native wild birds and their habitats throughout the Americas. ABC acts to safeguard the rarest bird species, restore habitats, and reduce threats, while building capacity in the conservation movement. ABC is the voice for birds, ensuring that they are adequately protected; that sufficient funding is available for bird conservation; and that land is protected and properly managed to maintain viable habitat.

ABC sets the bird conservation agenda by using the best science available to determine the highest priorities and the best solutions, and then communicating these priorities to the conservation community and the public through alliances, partnerships, and networks. ABC counts among its staff some of the foremost experts in bird conservation in the United States, and partners with many others throughout the Americas.

ABC is a membership organization that is consistently awarded a top, four-star rating by the independent group Charity Navigator. Please view our website, www.abcbirds.org.

Piedmont Environmental Council

The Piedmont Environmental Council (PEC) is a 501(c)(3) non-profit conservation organization and regional land trust. Founded in 1972, PEC uses a comprehensive strategy to promote and protect the Virginia Piedmont's rural economy, natural and historic resources, and scenic views. Accordingly, PEC works with landowners, residents, and local governments to ensure the long-term protection of their communities and quality of life through land conservation and land use planning that directs growth to places which ensure that new development fulfills the vision of local citizens. As communities change, we work to foster a sense of history, establish a viable transportation network, create enjoyable neighborhoods, promote strong local economies, and initiate opportunities which allow everyone to enjoy the outdoors.

PEC enjoys widespread public support of its work and primarily serves Albemarle, Orange, Madison, Greene, Culpeper, Fauquier, Loudoun, Clarke, and Rappahannock Counties, although assistance is also provided to citizens and organizations with parallel missions in neighboring counties. Consequently, PEC is recognized nationally for leadership in promotion of smart growth principles, land conservation, and related work in rural historic preservation, conservation of working forests and farmland, wildlife habitat, and watershed protection.

PEC is a membership organization that is consistently awarded a top, four-star rating by the independent group Charity Navigator. Please view our website, www.pecva.org.

Virginia Department of Game & Inland Fisheries

As Virginia's wildlife agency, the Virginia Department of Game and Inland Fisheries (VDGIF) works to manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity

for all to enjoy wildlife, inland fish, boating, and related outdoor recreation; and to promote safety for persons and property in connection with boating, hunting and fishing. VDGIF is responsible for the management of inland fisheries, wildlife, and recreational boating for the Commonwealth of Virginia.

VDGIF is a leader in Virginia in the conservation of birds that are traditionally hunted, such as waterfowl, Wild Turkey, American Woodcock, Northern Bobwhite, and Ruffed Grouse; as well as of nongame avian species, including Red-cockaded Woodpecker, Bald Eagle, and Peregrine Falcon; colonial waterbirds such as terns and herons; and shorebirds such as Piping Plover and American Oystercatcher. Bird conservation by VDGIF includes research and monitoring of bird populations; regulatory review of projects in relation to wildlife resources, including state or federally endangered and threatened species; land acquisition, and habitat management of Virginia's Wildlife Management Areas; and a number of recreational, educational, and outreach programs, including the establishment of the Virginia Birding and Wildlife Trail and sponsorship of several of Virginia's birding festivals. Please see our website, www.dgif.virginia.gov.

VDGIF's conservation activities are taking on an expanded focus through the recent development of the Virginia Wildlife Action Plan (available on www.dgif.virginia.gov), which identifies 925 species of greatest conservation need, including insects, fish, muskies, reptiles and amphibians, mammals, and birds.

Acknowledgements

We thank Sarah Gannon Nagle for conceptualizing and writing the grant proposals that started the first edition. The resulting publication was received very well by landowners, local birding clubs, and resource management agency staff. So much so, that nearly all of the first run copies have been distributed since September 2006. While the first edition will continue to be available in an electronic format, partners began discussing ways to expand and improve the habitat guide for another hard copy edition.

In 2008, ABC and PEC collaborated closely with current and retired VDGIF staff to develop this second edition. This updated version has been expanded to cover the entire Piedmont range in Virginia, and includes the following topics: agricultural habitats, grasslands, early successional habitat, forests types (hardwood, pine, and savannah), wetlands and riparian areas, developed lands, invasive exotic plants, biofuels and wildlife habitat, and landowner resources.

We thank Rick Myers (VA Natural Heritage) for reviewing the sections on Grasslands and Savannas. Dean Cumbia (VA Dept. of Forestry) offered constructive suggestions on the Forestry section. Julie Hawkins (Natural Resources Conservation Service) provided text for the Cost Share Assistance section.

We sincerely appreciate funding support for this updated and expanded version from the following: Piedmont Environmental Council and Robert L.V. French, Virginia Chapter of The Wildlife Society, Virginia Department of Game and Inland Fisheries, and Virginia Society of Ornithology.

Managing Land in the Piedmont of Virginia for the Benefit of Birds and Other Wildlife

The Piedmont extends southwestward from New York City to Montgomery, Alabama, in a swath that is bordered on the east by the Coastal Plain and on the west by the Appalachian Mountains. The Virginia Piedmont is roughly triangular in shape, extending from a narrow band in northern Virginia to a width of 150 miles at the southern Virginia border. Although it was once mostly hardwood forest, centuries of human influence have converted the Piedmont to a mix of agriculture, abandoned farmland, forest, and suburban development. Often overlooked in its importance to birds, the Piedmont provides valuable nesting, migration, and wintering habitats that are scarce in other parts of the state.

Approximately 140 species of birds breed in the mid-Atlantic Piedmont. Data show that populations of many of these species have declined in recent decades. Habitat loss and degradation are the most important factors causing these declines. Suburban and agricultural development has eliminated much of the region's hardwood forest, and non-native plants and poor management have impaired much of what remains. Non-native grasses of little value to most birds dominate pastures, and early mowing for hay destroys the nests of those few that attempt to breed there. Farm modernization and increasing pesticide use have turned agricultural lands into wastelands for birds, in part by eliminating many brushy fence lines, ditches, and road banks that formerly provided valuable edge habitat for nesting and foraging.

Why should we care enough about bird population declines and habitat loss to devote our valuable time and resources to managing for wildlife? Birds are an integral part of our ecosystems and thus help maintain the dynamic balance of nature. They are some of our best pest control agents, helping to keep insect populations in check that might otherwise defoliate and damage timber and crops. Birds also serve as one of our most efficient seed dispersers, depositing them far from their place of origin and helping to main-

tain the vigor of our forests and grasslands. In addition, birds are aesthetically pleasing, providing beauty of both sight and sound. Birdwatching is quickly becoming one of our most popular hobbies, generating billions of dollars each year spread across local economies where opportunities are provided. But, perhaps most importantly, birds and other wildlife are entrusted to the care of those of us who are landowners and it is our responsibility to assure that future generations have these natural resources to nurture and enjoy.



If you own land in the Piedmont, whether a large farm or estate, or just a small backyard, then you too can help provide valuable habitat for our birds. Simple changes, such as leaving a fence row to grow unkempt or allowing part of a yard to grow up in native grasses rather than mowing every two weeks, can provide great benefits to the birds that are struggling to survive under our ever-intensifying land use habits. Read on and find out about this and many more opportunities you have to help birds!

AGRICULTURAL HABITAT

Approximately 27% of the Virginia Piedmont is used for agricultural production. Although this habitat is not nearly as important for birds as are grasslands or forests, management of agricultural land can have important implications for birds. Not only do some birds make direct use of this habitat, but many other species, both close by and distant, can be affected by agricultural practices.

At least 50 Piedmont bird species have been documented to nest directly in crops. Other species use the open fields for hunting and foraging and nest in the weedy borders and shrubby edges of cropland. Raptors, including Red-tailed Hawk, American Kestrel, Northern Harrier, Barn Owl, and Great Horned Owl, hunt in crop fields, removing small rodents and insects. In fall and winter, agricultural fields provide food for migrating and wintering sparrows, bobwhite, and wild turkeys. Waterfowl and shorebirds frequently feed in flooded portions of crop fields during migration. Depending on their quality, agricultural buffers can be used by a wide variety of shrubland breeding species, including the Northern Bobwhite, Common Yellowthroat, and Indigo Bunting, as well as by wintering sparrows.



Corn/Mike Parr

Indigo Bunting/FWS; Barn Owl/ClipArt.com

Maintaining Active Agricultural Production

Tillage—Conventional tillage practices, in which fields are disked or plowed, are detrimental to birds and the surrounding environment. These practices provide increased potential for soil erosion, which results in siltation of streams and wetlands that reduces their value for wildlife.

- Conventional tillage should be replaced with a no-till regime or conservation tillage in which at

least 30% of the soil remains covered by plants or plant residue.

- Conservation tillage allows plants and residue to keep the soil in place, provides habitat for birds, and increases food availability.
- Conservation tillage and no-till leave much more waste grain available as food for birds.
- No-till agriculture provides the greatest benefit to birds, however, this practice is often accompanied by increased use of pesticides. Pesticides can poison birds directly, and reduce their breeding success through both sub-lethal effects and by killing the insects that make up a large portion of their diet. Pesticides can impact the environment as far away as the Chesapeake Bay through runoff. If you employ no-till agriculture, practice integrated pest management that reduces the amount of pesticides that are needed.



Northern Bobwhite/Bill Hubick

Maintenance of cover—Birds need cover to avoid predation, and maintaining residue or active growth on fields reduces erosion and its associated problems.

The optimal residue management is that which keeps cover on the ground at all times of the year.

- Rotate crops to maintain and improve soil productivity and fertility, reduce soil erosion, help control weeds, and manage plant pests by breaking the pest cycle.
- Planting a cover of native grasses, grains, or legumes in unused fields or as a part of crop rotation provides similar benefits and greatly promotes wildlife.
- In larger fields, planting alternating strips of grass or close-growing crops with cultivated crops can provide valuable nesting and cover habitat for wildlife.
- Leaving field and waterway edges unmowed and ungrazed helps prevent runoff and erosion, and provides areas where birds can raise young.

Buffers—In the past, the unkempt hedgerows and weedy environments often found around farmsteads served birds well by providing both cover and abundant insect food. Herbicides and so-called “clean” farming have resulted in the loss of weedy habitats and the clearing of hedgerows, both to the detriment of birds.

- Buffers between crop fields and forests or pastures are very beneficial, but buffers between individual crop fields can also provide useful habitat. Care should be taken not to create buffers against inhospitable habitat such as highways, as this creates a death trap for birds. Buffers up to 300 feet wide provide considerable benefits to birds, but smaller buffers of at least 35 feet in width have significant value. Buffers that are narrower than 35 feet provide essentially no benefit.
- Buffers should be planted with a diverse array of native plants and maintained to keep out invasive species. Maintenance is best accomplished in March or August either before or after the nesting season. Leaving buffers relatively high (10 inches) is preferred.



American Kestrel/Cary Smyle; Common Yellowthroat/Barth Schorre; Red-tailed Hawk/Cary Smyle; Bobolink/Joe Kosack. PGC

Tilling a farm field/stock.xchng



Hay bales/stock.xchng

GRASSLANDS

Grasslands occurred mostly in the west Piedmont and along river systems in presettlement times. They were maintained here for thousands of years by human manipulation. Even before the European settlers cleared land for pasture and crops, Native Americans had maintained open areas through the use of fire. Current Piedmont grasslands consist primarily of tame grass pasture and hay fields.

Bird population analyses show that grassland birds are declining nationwide. The trend on the Virginia Piedmont is similar, with some breeding species, including Henslow's Sparrow and Upland Sandpiper, being nearly extirpated.

However, small fields (< 100 acres) still support breeding habitat for Bobolinks, Eastern Meadowlarks, Northern Bobwhite, and Savannah Sparrows, while larger tracts (>100 acres) support Grasshopper Sparrows and create the potential for re-invasion by Upland Sandpipers and Henslow's Sparrows. During the winter, raptors such as Northern Harriers and Short-eared Owls hunt over Piedmont grasslands.

The fire-maintained stands of giant cane or native bamboo (*Arundinaria gigantea*) along the South Piedmont river bottoms were an amazing ecosystem, covering broad reaches of the Dan, Roanoke, and Bannister river floodplains. Standing 6-25 feet tall with 1-3 inch diameter stems, these lush cane grasslands were intensively utilized by Native Americans and early pioneers. Unfortunately for wildlife that used them, cane proved very palatable to cattle and indicated the very best soils for cultivation. Today, botanists have only found giant cane in two Piedmont counties. Because cane normally spreads by rhizome, not seed dispersal, it is probably unrealistic to consider reestablishing Piedmont canebreaks.

Creating and Maintaining Grassland Habitat

Size and configuration—Piedmont grasslands are now divided among many owners with different management objectives and practices. This often results in patches of land that are smaller than what is required by many grassland bird species.

- The minimum size for a productive grassland is 20 acres, with 100 acres or larger being optimum. Tracts smaller than 20 acres would be best for birds if managed as shrubland habitat (see p. 10).
- Circular or square tracts are better than rectangular or elongated tracts because they minimize the edge to area ratio, which reduces predation and increases reproductive success.
- Placing roads and infrastructure near the edges of fields can minimize fragmentation.

Optimum species composition—Many existing pastures are far from optimal for birds because they contain non-native grasses that require continuous maintenance.

- Avoid dense monocultures of exotic sod-forming grass and typical lawn grasses such as cold-season Kentucky bluegrass, orchardgrass, or tall fescue. These grasses are not beneficial to birds and they require intensive ongoing care, such as fertilizer and herbicide applications that are costly and harmful to wildlife.
- Plant native warm-season bunch grasses, which grow in clumps, allow open space at ground level for wildlife to move through, and do not require fertilizer or herbicides if burned every other year. These grasses provide dependable forage production during the summer, when exotic cool-season species have slowed growth.
- A mixture of short and tall native, warm-season species, including big bluestem, Indiangrass, switchgrass, little bluestem, and broomsedge, provides the greatest benefits to birds.

- Add some native forbs, such as black-eyed Susan, to increase the plant diversity and attract insects that are a vital source of protein for young birds during the breeding season.

Management—Without management, grasslands will naturally change to scrubland and eventually forest through the process known as succession.

- Grassland maintenance can be accomplished through grazing, light disking, or burning, but avoid year-round, uncontrolled grazing.
- Rotational grazing, in which some fields are lightly grazed while others are left idle, is the best practice if grazing is your management choice.
- Heavy bush-hogging and repeated cutting throughout the growing season should be avoided, as they may result in considerable nest habitat loss and bird mortality.
- Timing of cutting is crucial for wildlife management. The best time to cut is early spring (March or early April), followed by late summer or early fall (August–September). Avoid cutting from mid-April through the end of July when most birds are using grasslands for nesting and brood rearing. Note that maximum hay production and bird conservation are incompatible, especially with cool season grasses such as fescue and timothy.
- Although tricky to do, mowing from the inside out to push the birds out of the field rather than trapping them in the middle as the mower approaches will harm far fewer young birds.

- Hayfields of warm-season grasses need to be cut only once per year, so they are easier and cheaper to maintain. They are also cut much later in the summer than cool season grasses, allowing the birds to finish breeding before cutting occurs.

- Burning benefits the grassland and the birds the most. It increases herbaceous plant diversity, promotes vigorous grass growth, releases nutrients back into the soil, and suppresses competition from invasive species. Unlike other management practices, burning also removes the vegetative litter from the ground's surface, which is necessary to allow ground-nesting birds easy passage through the fields to forage for food and escape from predators.

- Burn in the early spring (March or early April), before green-up, or if this is not possible, burn in fall (October and November). Fall burns benefit management of the grassland but result in removal of good habitat for wintering sparrows and raptors.

- Most fields should not require burning more than once every two or three years. When carrying out a burn, safety is critical and local authorities should be consulted before any burn action is considered. Virginia fire laws can be found at www.dof.virginia.gov/fire/index.shtml. The Resources section on page 26 contains a list of contractors that carry out prescribed burns in Virginia.



James easement area/Faren Wolter

SHRUBLANDS

Shrubland and old-field communities consist of scattered woody plants less than ten feet tall interspersed with open patches of diverse grasses and forbs. Other early-successional habitats occupied by similar birds include power line rights-of-way, restored strip mines, hedgerows, regenerating clearcuts, and old fields. Old fields consist of cropland or pasture that has been abandoned and allowed to grow up into vegetation.

Early successional birds are among the higher conservation priorities for the Piedmont, and include species such as the Northern Bobwhite, American Woodcock, Loggerhead Shrike, and Field Sparrow. In addition, Prairie Warblers occur in higher relative abundance in Piedmont shrublands than in any other part of their range. Other species that occupy these habitats include the Whip-poor-will, Yellow-breasted Chat, and Eastern Towhee. Species that particularly benefit from wide hedgerows include the Brown Thrasher, Gray Catbird, and a variety of wintering sparrows.

Shrubland habitat is the perfect option for fields smaller than 20 acres that are not adjacent to existing grassland or forest. These habitats appear messy to landowners and are usually either converted back to grasslands or allowed to grow into forest, most often through neglect. This loss has resulted in the decline and disappearance of wildlife that is dependent on these early-successional habitats for nesting, brood rearing, feeding, and escaping predation.

Creating and Maintaining Shrubland Habitats

Size and configuration—Early successional bird species can thrive in shrub habitat regardless of size or configuration, so maintenance as a shrubland is optimum for old fields less than 20 acres.

Maintaining land parcels larger than 20 acres as shrubland is difficult. Old fields between 20 and 100 acres would best be managed for birds as grassland, while those larger than 100 acres should be managed to

grow into forest. Both of these habitats are at a premium on the Piedmont, so these are both optimum uses for land this size.

- Patches less than 20 acres in size that are adjacent to existing forests should be reverted to forest (see p. 12), and those adjacent to grasslands managed as grassland (see p. 8), thereby increasing the size of the adjacent habitat type.
- Patches that are 20 acres or smaller that are not adjacent to existing forest or grassland, or patches that are linear that do not offer much potential for successful reproduction by forest or grassland breeding birds should be considered for permanent maintenance as shrubland.



Yellow-breasted Chat/Greg Lahey



Loggerhead Shrike/Michael Stubblefield



American Woodcock/FWS

Barbara Tolarska-Guzik/www.forestimages.org

- Hedgerows should be as wide as possible. Benefits greatly increase at widths of 35 feet and more.

Management—Shrublands require management to keep them from changing to a forest through succession.

- Creating shrubland habitat requires aggressive management, including stump removal, mowing, and herbicide applications for a few years to allow the appropriate vegetation to become established.
- A diverse mix of native, fruit-bearing shrubs and small trees is optimum habitat for a unique assemblage of shrubland-adapted birds.

- Maintenance of existing shrublands requires periodic (about every four or five years) disturbances through such means as burning, mowing, grazing, selective removal of trees, and where necessary, herbicide use.

- No disturbance should occur from mid-April through mid-August when birds are nesting and raising young.

- To control trees, burning or cutting should be accomplished as soon as possible after mid-August because these types of control work best if accomplished before the trees become dormant for winter.



Eastern Towhee/ClipArt.com; Field Sparrow/Bill Hubick; Prairie Warbler/FWS

Hedgerow/Gavin G. Shire



Forest/Mike Parr

There are two types of forest in the Piedmont, deciduous hardwood and coniferous softwood. Piedmont hardwood forests consist mainly of oak, maple, and hickory, with smaller numbers of tulip poplar, sweetgum, and red maple. Loblolly and Virginia pine are the primary species in pine forests, along with smaller numbers of shortleaf, white, and pitch pine. European settlers cleared much of the original forest habitat in Virginia, with the total amount of forested land beginning to increase in the 1940s. However, the amount of forested land began declining again in the early 1990s due to urbanization and development.



Screech Owl/ClipArt.com

Bird populations in forests increase in density and diversity as the forest gets older, reaching a maximum in forests exceeding 100 years of age. Older forests also tend to support more dead trees or snags, which are important habitat components for many nesting birds and nearly half of North America's 45 bat species. Woodpeckers excavate cavities for nesting and roosting in dead and decaying snags, which can eventually be used by secondary cavity nesters such as Wood Duck, Prothonotary Warbler, and Great Crested Flycatcher, none of which excavate their own nest holes. The hardwood forests of the mid-Atlantic Piedmont are the heart of the breeding range for species including the Wood Thrush, Acadian Flycatcher, Scarlet Tanager, and Eastern Wood-Pewee. Other species found in Piedmont hardwood forests include the Kentucky Warbler, Worm-eating Warbler, Eastern Screech-Owl, Red-headed Woodpecker, Cooper's Hawk, and Red-shouldered Hawk. Pine forests can support Brown-headed Nuthatch, Whip-poor-will, Prairie Warbler, and possibly Bachman's Sparrow.

Creating and Maintaining Forested Habitats

Size and Configuration—Many bird species require large forest tracts for successful breeding, even though their individual territories may be relatively small. Unfortunately, most of the forested land in Virginia consists of highly fragmented small- or medium-sized tracts. Predation rates on bird eggs and young are much higher and reproductive success lower closer to forest edges than in the forest interior, and smaller tracts have larger relative amounts of edge.

Forest restoration is best for tracts of 100 acres or larger, and circular or square tracts have less edge than do linear tracts of comparable size. Long, rectangular tracts will simply create an extensive edge that pulls breeding birds into predatory traps. Consider management as shrubland for these types of the tracts (see p. 10).

Addition to existing forest should always be considered, particularly if it increases the amount of forest interior (defined as occurring deeper than 330 feet from the forest edge).

Plant trees in forest openings, particularly to decrease the amount of edge; locate new roads and utility lines around the forest and maintain a closed canopy over existing roads.

Restoration

- Determine what type of forest your land historically supported and/or what type of forest best fits into the surrounding landscape. It does not pay to attempt to establish a forest type that cannot be supported with the soil and climate in your area.
- Consider planting a variety of native species on your forested land. Diversity is the key to attracting all kinds of wildlife.
- Deer can decimate newly planted seedlings, so protect new hardwood and shrub plantings with tree shelters. Providing deer with a browsing alternative, such as a clover understory, will also increase seedling survival.

Management

- All livestock should be fenced out of forest stands.
- Monitor regenerating forests for invasive species that can take over in as little as a year if not eliminated or controlled.
- Forests with more structural complexity support a greater variety of bird species.
- Ensure a mixture of ground cover and understory plants to produce the best habitat for birds. Planting may accelerate establishment of these plants.
- Creating coarse, woody debris piles in a forest provides habitat for some birds as well as small mammals, amphibians, and reptiles. In addition, dead trees, limbs, and litter on the forest floor provide cover and a source of invertebrate foods.
- A good supply of standing dead trees, also called snags, provide foraging sites for woodpeckers, and natural cavities for nesting is one of the best benefits of an old forest. Aim for at least four standing dead trees per acre.

Special Considerations—Hardwood Forests

- Thin young stands every three to ten years to remove weak, poor quality, or suppressed trees, allowing more growing space for the remaining healthy trees and letting sunlight penetrate to benefit mid- and understory plants.
- Periodic thinning helps to reduce the risk of insect infestations, disease, and catastrophic fires.
- Thinning that preserves mast-producing trees and shrubs (those that produce a diversity of seeds) can help sustain songbirds, deer, black bear, Wild Turkey, and small mammals through the winter months.
- Girdle some large but malformed or damaged trees to create snags for nesting and perching. Girdling them kills them but leaves them standing in place. Try to select trees that already have some decay to accelerate cavity formation. Over 80 Virginia bird species nest in cavities.

Special Considerations—Pine Forests

- Loblolly and shortleaf pine stands are planted at an initial density of 400-450 trees per acre (TPA) for timber production. Consider planting at 300-350 TPA for improved wildlife value. To enhance wildlife values further, consider shortleaf pine instead of loblolly. Add a few outer rows or clumps of shrubs to enhance the array of birds using the area.

- Young, natural pine stands are often heavily overstocked, sometimes exceeding 2,000 TPA. These stands will benefit by a precommercial thin down to 10 ft. x 10 ft. spacing.
- Young pine stands can be outcompeted by hardwood species. To prevent this, use prescribed burns or selective herbicide treatments targeted specifically at hardwoods. Take care not to eliminate ground cover and understory plants.
- As a loblolly or shortleaf pine forest canopy closes, tree crowns intercept an increasing amount of sunlight, resulting in less light on the forest floor. This causes a decline in ground level and understory plants, leading to a decline in the number of bird species. Thinning at 15 to 20 years overcomes this problem. Ovenbirds and other ground nesters will benefit.
- Thinning is also economically beneficial, resulting in increased growth in diameter and volume of timber. To significantly increase bird diversity, 15 to 20-year-old stands should be thinned to 175 TPA. This allows at least 50% of the ground to have sunlight at noon. A second thinning should be considered as the pine canopy again closes, typically at about ten years after initial thinning. Thin to 85-100 TPA for a stand of large pines that is attractive to wildlife and financially profitable. Thin as early as economically feasible.
- After thinning, at least one third of the acreage should be burned every year to control hardwoods while providing the highest quality wildlife habitat. The first burn should cover the entire thinned stand roughly a year post-thin. Prescribed burning removes logging debris, stimulates herbaceous growth, which provides excellent habitat for turkey poults and quail chicks, and prevents reinvasion of woody seedlings.
- Herbaceous growth responds best to burning in early spring. If this is not possible, burn in August after birds have nested.
- Burning involves more than simply lighting your forest on fire. It requires skill, planning, and experience. Safety and compliance with burn laws is critical. Local authorities and the Department of Forestry should be consulted before any burn is considered. Virginia fire laws can be found at www.dof.virginia.gov/fire/index.shtml. The Resources section on page 26 contains a list of contractors that carry out prescribed burns in Virginia.

SAVANNAS: A SPECIAL CASE

Vast acreages of presettlement Virginia were covered by savanna, a fire-maintained, sparsely-stocked forest with a grassy herbaceous ground cover and lacking a woody understory layer. These primarily pine savannas were maintained by frequent surface fires, originating both from lightning and from intentional burning by Native Americans. A host of species such as the Brown-headed Nuthatch, Bachman's Sparrow, and southeastern fox squirrel have a strong association with pine savannas. Some forest birds, such as Red-headed Woodpecker, and early succession birds, such as Prairie Warbler, also do particularly well in savannas.

While the most extensive Virginia savannas were the longleaf pine forests of Southeastern Virginia (mostly southeast of Petersburg), the earliest historical diaries describe extensive savannas along the west Piedmont into the Blue Ridge foothills (most likely shortleaf pine savanna) and along the major Piedmont river corridors. However, it is unclear which kinds of trees dominated the historic Piedmont savannas of Virginia. In all likelihood, pine and oak species, due to their known adaptation to fire, would have been among the dominant savanna tree species.

Savanna Establishment/Restoration

- Undertaking pine savanna establishment or restoration involves a commitment to the regular use of prescribed burning, typically every two or three years. The goal is a scattered stand of trees with a grassy/herbaceous groundcover. This habitat structure provides trees for nesting and perching, an open and diverse herbaceous layer for foraging and nesting, and continuous light fuels which support frequent fire capable of controlling woody invasion.
- While savanna creation/restoration can begin with planting trees in field settings, it is more quickly and easily accomplished by thinning in

established forest stands. The above section on pine thinning will produce a savanna stand with an open canopy; however, reducing the TPA even further will produce better ground cover. A third thinning will most likely be required to maintain more than 50% sunlight on the forest floor.

- Creating and maintaining herbaceous ground cover requires regular burning. The initial, post-thin burn is usually the most difficult, as you have to contend with logging slash. About half of the subsequent burns can be carried out during the dormant season (January-March).
- In order to promote a diversity of herbaceous plants and better control unwanted hardwood species, it is recommended that every other prescribed burn be carried out in the growing season (April-August). Growing season burns are much more effective at controlling woody plants. However, burning during the growing season can be more challenging than during the dormant season. Talk to a professional to assess the need for and logistics of a growing season burn before undertaking it! It may require additional precautions.



David Stephens, Bugwood.org

Red-headed Woodpecker/Greg Lavaty



Brown-headed Nuthatch/Bill Hubick

- Herbaceous ground cover is critical to full functioning of a savanna. The ground layer may be slow to establish, but prescribed burning will usually yield a surprising array of native plants that have been either lying dormant under the deep shade of a well-stocked forest, or which rapidly colonize an area which has been thinned and burned. Again, prescribed burning requires expertise, planning and suitable weather. Consult with the Department of Forestry prior to burning.
- Sometimes a diverse groundcover does not materialize, in which case it may be necessary to augment the developing savanna with appropriate native plants. Consider grasses such as wild rye, indiagrass, little bluestem, broomsedge, and bottlebrush grass, as well as wildflowers such as partridge pea, wild senna, goats rue, beggar lice, black-eyed susan, narrow-leaf mountain mint, and grass-leaf blazing star.

- Landowners may want to consider forest types other than loblolly pine as likely settings for savanna restoration. Shortleaf pine and oak/hickory dominated hardwood savannas are likely to have been dominant community types within large areas of the Piedmont and, if restored, would yield high wildlife habitat values and benefits for landowners. The Virginia Department of Game and Inland Fisheries has an ongoing experiment at the Amelia Wildlife Management Area to determine the most efficient method of restoring hardwood savanna. The Virginia Department of Conservation and Recreation is restoring shortleaf pine and hardwood savannas at the Difficult Creek Natural Area Preserve in Halifax County.

Prescribed burning/David Stephens, Bugwood.org



Bachman's Sparrow/Greg Lavary



Prairie Warbler/Bill Hubick



Longleaf Pine/Ricky Layson Photography, Bugwood.org





Wetland/FWS

Wetlands in the Virginia Piedmont include the forested and grassed riparian areas along stream banks, farm ponds and their grassy margins, agricultural waterways, and other wet areas that support water-loving vegetation. Wetlands embedded in forests, pastures, or hayfields significantly add to the number of bird species that an area can support. Active beaver sites are particularly attractive to many birds. In addition to providing specialized habitat, wetlands also perform valuable ecological functions, including slowing flood waters, reducing erosion, and filtering sediments.

However, the ecological importance of wetland habitats is misunderstood and they are often viewed as wasted or useless land. Accordingly, wetlands are often converted to other land uses, which makes them one of the habitats most vulnerable to loss. Over 42% of Virginia's wetlands have been lost since the late 1700s. Many non-game migratory bird species that are threatened or declining are those that depend on inland freshwater habitat for at least part of their life cycle. The Louisiana Waterthrush, a riparian forest species, has a large portion of its breeding population in the Virginia Piedmont. Other bird species associated with wetlands in the Piedmont include the Prothonotary Warbler, Green Heron, King Rail, Least Bittern, and Pied-billed Grebe. Migrating shorebirds, wintering and breeding waterfowl, and some breeding rails and wading birds all benefit from well-managed wetlands.

Because wetlands are endangered, they are protected by state and federal laws, all of which should be considered when managing wetlands. When altering a wetland, you must contact the Virginia Department of Environmental Quality (www.deq.virginia.gov) and the Army Corps of Engineers (www.usace.army.mil) for permitting information.



Green Heron/Peter Wallach



Louisiana Waterthrush/© Patricia Velle, BackyardBirdCam.com

Creating and Maintaining Wetland Habitats

Management of riparian vegetation

- Avoid removing riparian vegetation that shades streams because this causes water temperatures to rise, which has a negative effect on fish and other aquatic life that are the basis of the wetland food web.
- Leaves and small twigs falling from surrounding vegetation into streams and rivers are critical to the maintenance of aquatic food webs.
- Erosion stimulated by removal of vegetative cover deposits fine sediments that are the most widely occurring pollutants in streams. This causes a lack of water clarity that has a negative effect on aquatic life.
- Intact riparian zones slow the runoff from fields, which allows sediment to be deposited before it enters waterways.
- Maintain riparian forest buffers of at least 100 feet on each side of the water body. These provide the best habitat for birds and the best maintenance of the aquatic food web.

- ❧ Fence riparian buffers to keep out domestic animals that otherwise can cause stream bank erosion and degrade water quality.

Management of farm ponds

- ❧ Allow the edges of farm ponds to grow native wetland vegetation rather than allowing grazing or planting them with lawn grass.
- ❧ When digging ponds, create a shallow gradient that provides both vegetated borders and open mudflats. This will benefit waterfowl, rails, herons, and shorebirds.
- ❧ Farm pond buffers of 50 to 60 feet, including vegetation of differing heights from upland areas to the pond itself, will provide the broadest benefits to birds. Allow a minimum buffer of 20 feet around all farm ponds.

Management of agricultural waterways

- ❧ Allow agricultural waterways to grow grassy strips, as this will limit transport of sediment and agricultural runoff (mainly fertilizers and pesticides) to surrounding lakes and streams. Wider is better, but strips can be as narrow as 35 feet. Strips at least 150 feet wide can also provide habitat for some birds.
- ❧ Maintain grassy strips by occasional mowing or disking, but do not graze them, as this will eliminate their ability to slow water flow.
- ❧ Grassy strips should not be disturbed during the nesting season from mid-April to mid-August.
- ❧ Many herbicides and insecticides are toxic to aquatic life. In addition to maintaining buffer strips, avoid applying pesticides within 20 feet of the water's edge.



Least Bittern/Peter La Tourette; Pied-billed Grebe/Bill Hubick; Prothonotary Warbler/Glen Tepke

Farm pond/stock.xchng



Garden/morguefile.com

Although we tend to think of the Piedmont as a rural area, urban and suburban development are on the rise, and this trend will certainly continue. With their mowed lawns and monoculture habitats, urban and suburban areas tend to have very little value as avian habitat. With a few small changes, however, even a suburban yard can offer good bird habitat.



American Goldfinches,
Carolina Chickadee/Gary Smyle

Managing your yard for bird habitat

- If you have the luxury of planning the structures on your lot, place them to maximize the size of natural habitat blocks.
- Avoid creating a park-like yard that provides little habitat for birds and other wildlife. A typical yard consists of two extremes, lawn and tall trees, with no middle layer of vegetation to provide the cover that is crucial to wildlife.
- Intersperse and mix native shrubs, hedges, and thickets to create habitat islands and habitat corridors that will substantially improve the appeal of any yard to birds.
- Place water sources in the form of bird baths or small pools around your yard, but remember to empty and refill these every two days to prevent mosquitoes and the spread of mosquito-borne diseases such as West Nile virus.
- If your yard includes a stream, allow the vegetation to grow up around the edges rather than mowing.
- Minimize the use of fertilizers and pesticides that can harm wetlands and streams, not only nearby, but as far away as the Chesapeake Bay.
- Using native plants that are best adapted to growing in local conditions will minimize the need for these chemicals.
- Include berry plants such as winterberry holly that provide an especially important food source to birds during the cold months. There are a multitude of berry and nectar producing shrubs that provide food in the spring and summer when birds are raising young.
- Leave dead trees and snags in your yard as long as they are not a safety risk. The dead and decaying wood provides nesting cavities and attracts insects that provide food.
- Create a brush pile that will provide cover for birds and attract insects.



Red-bellied Woodpecker/Bill Hubick

Extra things you can do for birds

- ❧ Put out bird feeders filled with quality seeds (black-oil sunflower and white proso millet), especially in the winter. Remember to clean feeders regularly to prevent disease.
- ❧ Keep your cat(s) indoors. It's healthier for the cat and for the birds.
- ❧ During the summer, suspended fruit will attract orioles, catbirds, and other fruit loving birds.
- ❧ Most yards have room for at least one or two nest boxes for wrens, chickadees, bluebirds, and woodpeckers.
- ❧ Hummingbirds are particularly attracted to feeders in suburban environments.

- ❧ In the spring, you can even put out the hair from your hairbrush and the birds will use it as nesting material.

Improving your neighborhood for birds

- ❧ Participate in park and stream restoration projects in your neighborhood and encourage the use of native vegetation.
- ❧ Help schools to transform part of their land to bird habitat. It will require less maintenance than closely cropped grass, which saves money and helps reduce greenhouse gas emissions.
- ❧ Garden clubs and home owners' associations are excellent organizations that can initiate restoration projects to benefit birds.



Blue Jay/Laura Erickson, Binoculars.com; House Wren/Chris Young, Eastern Bluebird/James Ownby

Yard/Hicks.com

INVASIVE EXOTICS

Exotic species can brighten your day and be as harmless as a bed of tulips in March, or can be as destructive as the Johnsongrass in your corn field that you have been fighting for many decades. While numerous bird species may love multiflora rose, the problems associated with its spreading far outweigh encouraging or ignoring its presence on your lands. Invasive exotic plants must be addressed on a yearly basis because some of these species are very aggressive and can displace desirable species in two to three years if allowed to grow unchecked.

There are over 100 plant species that the Virginia Natural Heritage program recognizes as posing a major problem in significant portions of Virginia. For a more thorough discussion and listing of invasive species, see their web site at www.dcr.virginia.gov/natural_heritage/invspdflist.shtml.

It is much easier to control a few rogue plants than fight them after they have gained a foothold. Familiarize yourself with some of the more common invasive species, be vigilant with your lands, and quickly move to control invasive species when you find them. Spot-spray when the first few plants show up. Selective herbicides are usually better choices than broad-spectrum varieties. Your county Extension Agent is the best source of current information on control of specific pests.

Exotics in Agricultural Fields

Johnsongrass is an aggressive species, especially in agricultural settings. Don't relax in keeping it contained because once it has become established, it will very difficult to remove.

- Each crop field will have its own unique "seed bank" that has accumulated over the years. Minimizing tillage brings fewer seeds to the surface.

- As you begin planting permanent cover in and around crop fields, you will need to be vigilant that dormant invasive species are kept under control. Tillage may have kept seeds of a mature *Ailanthus* tree from sprouting in the adjacent crop field, but once tillage ceases, these seeds may sprout into a major headache. Killing the *Ailanthus* at the field edge before initiating a permanent planting will make future maintenance much easier.
- Look for invasives in adjacent forested borders, fence lines, and pastures before starting a new, permanent planting.

Exotics in Grasslands

The presence of invasive species in grasslands may be as easy to control as using a prescribed burn to eliminate invading red cedar, or as difficult as trying to control the spread of *Sericea lespedeza* (Chinese bush clover).

- Multiflora rose is a particular problem in Piedmont grasslands. Spot-spray with herbicides.



Garlic mustard/Wisconsin DNR

Purple loosestrife/PADE: Invasive Plant Atlas of New England



Johnsongrass/Chris Evans, River to River CWMA, Bugwood.org

- ❧ Bermudagrass may offer some value for grazing, but it will cause no end of problems in future management of any acres on which it is planted.
- ❧ Autumn olive, kudzu, exotic thistles, and knapweed are among the other invasives to look for in grasslands.
- ❧ Canada and nodding thistles can be particularly troublesome in newly established grasslands. Their seeds are dispersed by wind, so look for their presence not only in the field to be planted, but also in adjoining fields before initiating new plantings.



Exotics in Shrublands

By their very nature as successional habitats, shrublands are prone to problems with invasive species. The regular disturbances required to maintain shrublands will sometimes encourage the spread of invasive species.

- ❧ Hedgerow maintenance is particularly important because natural regeneration may quickly result in a dominance of invasive species such as tree of heaven (*Ailanthus*), multiflora rose, and autumn olive, which can sneak into shrublands almost unnoticed.

Exotics in Forests

Forests can play host to an array of invasive exotics. Invasive species often establish a strong presence in forests because forests are the climax community, and landowners often do not practice routine, annual evaluation of forest condition.

- ❧ Check forests annually for presence of invasive exotics.
- ❧ Watch the forest floor in particular for invasive species such as Japanese stiltgrass and garlic mustard.
- ❧ Vines such as kudzu and bittersweet can cause serious damage to forests and may spread quickly.
- ❧ Understory plants can be displaced by invading shrubs such as autumn olive, some honeysuckles, and privet.

Exotics in Wetlands

- ❧ Purple loosestrife may be a beautiful plant, but it can be extremely aggressive in aquatic environments. Few herbicides have proven effective in controlling it.
- ❧ Be careful to check boats and trailers if they have been used in waters with *Hydrilla*. Remove all traces of the plant, or you will have a real pest in your lake or pond.
- ❧ *Phragmites* is usually found in Tidewater wetlands, but it may occur in the east Piedmont. Be careful of any disturbance in wet areas as you may encourage expansion of phragmites stands.



Japanese stiltgrass: Wisconsin DNR



Multiflora rose/James H. Miller, USDA Forest Service, Bugwood.org



Autumn olive/IPANE: Invasive Plant Atlas of New England

BIOFUELS AND WILDLIFE

Biofuels include an array of fuels derived from renewable resources such as crops, grasses, and trees. At present, virtually all biofuels in the United States are derived from feedstocks of corn and soybeans. There has been an increasing interest in producing biofuels from native Virginia feedstocks (wood and native grasses), yet we have very little knowledge of the potential impacts of such production on wildlife. Certainly the push to add more corn and soybean acres for biofuels has been detrimental to wildlife, as these acres have come from either idle or less intensive land uses that supported a lot of our wildlife. From a wildlife standpoint, then, what should you keep in mind if you decide to produce biofuels feedstocks on your farm?



Switchgrass/Meadowbrook Nursery

Soybeans/Howard F. Schwartz, Bugwood.org

- Native grasses (big and little bluestem, indian-grass, and switchgrass in particular) offer a lot of biofuel possibilities. Use only one harvest per year. These grasses are typically harvested for biofuels in winter, so ensure that a minimum of 35 feet next to woody cover is left standing in order to benefit wintering birds. That portion can be harvested the following year as you rotate the “leave-standing” portion to another part of the field. If you wait until late February or March, you can harvest the entire field with minimal impact on wildlife.
- Remember that true grassland bird species typically use stands that are 20 acres and larger.
- If you do not require full income from a native grass biofuel stand, consider harvesting in strips,

cutting 100 feet, skipping 100 feet and repeating across the stand. Another approach is to cut half the field and leave the remainder unharvested. Harvest the unharvested portions in the following year. Numerous bird species that utilize relatively undisturbed, tall grasses will benefit and it appears that there will not be a significant loss of income.

- Set harvesting equipment as high as possible. A leaf node at eight or nine inches will give the plant a much quicker start in spring and leave some residual nesting cover for early-nesting birds.
- Woody feedstocks may be slash from logging operations, poor quality trees or high-graded stands from past logging activities, or purposefully planted, quick growing trees. This may offer



Little bluestem/Meadowbrook Nursery



Song Sparrow/Gary Smyle



Sunflowers/stock.xchng

opportunities to improve your woodland and benefit wildlife at the same time. With careful planning and a selective harvest, you may be able to restore a degraded hardwood stand and gain a biofuel harvest at the same time.

- Whole tree chipping harvests offer an array of opportunities to establish improved timber stands or to begin a scrub-shrub habitat. Always include wildlife-friendly species in a replanting of hardwood stands, including oaks, hickories, persimmon, hackberry, and perhaps a few fruit trees, if you can offer them initial protection from deer foraging.



Mourning Dove/Gary Smyle



Ruffed Grouse/Laura Erickson



Wild Turkey/Tom Grey



Switchgrass/Meadowbrook Nursery



Garden/flickr.com

RESOURCES

Planning Assistance

Virginia Department of Game and Inland Fisheries biologists are available for habitat planning and management advice. The Piedmont offices are: Fredericksburg, 540-899-4169, Lynchburg, 434-525-7522 and Farmville 434-392-9645.

Foresters with the Virginia Department of Forestry (DOF) offer a wide range of services. The DOF office nearest you can be found by contacting their Regional Office at Charlottesville, 434-977-5193 or Farmville, 434-392-4159. The Natural Resources Conservation Service (NRCS) has numerous offices in the Piedmont, located in your local USDA Farm Service Center.

Piedmont Environmental Council has well-qualified staff that can provide forestry, wildlife habitat, and geographic information systems (GIS) assistance for stewardship planning. Call the main office in Warrenton, 540-347-2334 and ask to speak to the Conservation and Stewardship Coordinator.

Contractor/consultant foresters are private foresters who offer an array of planning and habitat management assistance options. You can search the listing for the consultant that meets your needs on the VA Department of Forestry website at www.dof.virginia.gov/mgt/forestry-consultant-index.shtml.

A list of Certified Foresters (CF) can be found on the website for Society of American Foresters (SAF), the professional governing organization for foresters. www.safnet.org.

Contractor/consultant wildlife biologists are private biologists who offer a wide range of wildlife habitat and stewardship planning services; especially for non-game wildlife. (see list page 26). A list of Certified Wildlife Biologists (CWB) and Associate Wildlife Biologists (AWB) can be found on the website for The Wildlife Society (TWS), the professional governing organization for wildlife biologists: www.tws.org.

Cost Share Assistance

The Natural Resources Conservation Service (NRCS) offers financial and technical assistance to help landowners create, restore, and improve habitats for wildlife. Farm Bill programs offer conservation incentives for landowners and public and private groups specifically interested in improving and protecting wildlife habitat. The Wetland Reserve Program (WRP) provides conservation easements and cost sharing for wetland restoration practices. The Environmental Quality Incentives Program (EQIP) is the NRCS flagship program offering cost-sharing to help install conservation practices benefiting "At-Risk" species, which are defined as those identified in Virginia's Wildlife Action Plan (see www.bewildvirginia.org for a list of species). WHIP (Wildlife Habitat Incentives Program) provides technical and financial help to install practices that improve terrestrial and aquatic species habitats and control invasive species. The sister agency of NRCS, the Farm Services Agency, manages the Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP), which offer annual rental payments plus cost-sharing to plant vegetated buffers, restore wetlands, and protect declining habitats. Information on all of these programs can be found at www.va.nrcs.usda.gov. In addition, your county forester can provide information on forestry specific cost share programs such as Farm and Ranchland Protection Program (FRPP), Forest Legacy Program (FLP), and Reforestation of Timberlands (RT) program.

Piedmont Environmental Council (PEC) has published a comprehensive guide, *Sources of Funds for Conservation: A Handbook for Virginia Landowners and Non-Profit Organizations*. This guide provides a good flow chart to help landowners understand which programs are suitable for their given project. You may obtain a free copy by calling the PEC main office in Warrenton at 540-347-2334.

Cost Share Assistance: State Acres for Wildlife Enhancement (SAFE)

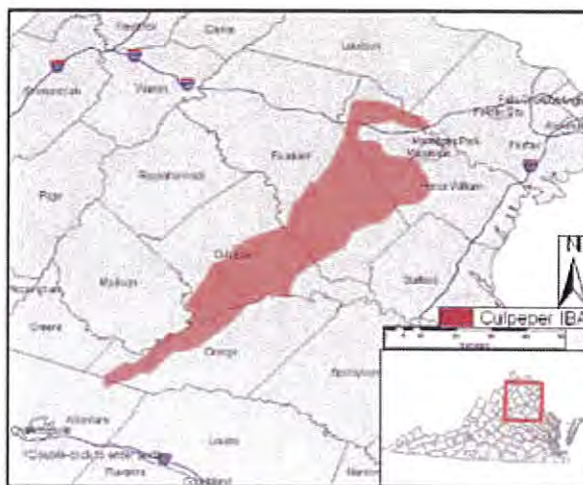
USDA's Farm Service Agency (FSA) created a cost share assistance program call State Acres for Wildlife Enhancement (SAFE) to benefit high-priority state wildlife conservation objectives through the restoration of needed habitat.

Through the local USDA office, landowners can enroll land for 10-15 year contracts provided they meet the following requirements:

- The land has a cropping history of four to six years from 1996 to 2001. This does not include marginal pasture land.
- For this project the land must be within the Culpeper Basin Important Bird Area (see map) and is appropriate for the proposed habitat restoration and management practices.
- Practices used and habitats created must be managed by the landowner during the life of the contract.

USDA may provide the following benefits to participating landowners:

- An up-front, one-time payment of \$100 per acre, which is made after the contract is approved.
- In addition to the acreage payment, USDA will pay up to 50% of the eligible cost of establishing a permanent ground cover for wildlife habitat.
- A practice incentive payment (PIP) equal to 40% of the eligible habitat installation costs.



- The remaining 10% of associated costs may be contributed through volunteer services, which means the costs associated with creating wildlife habitat through the SAFE program may be covered 100%.

Culpeper Basin IBA Pilot Project

The landscape recognized by the National Audubon Society as the Culpeper Basin Important Bird Area (see map above), which once supported an abundance of grassland bird species, has been transformed by centuries of human activities into a mosaic of farms, fields, and scattered secondary woodlots of oaks, hickories, and Virginia pine. Consequently, government agencies and private conservation organizations are working together to plant native trees, shrubs, and warm season grasses on 1,000 acres of retired cropland to restore grass and shrubland habitats along the Rappahannock and Rapidan Rivers, as well as upland habitat along their tributaries. Restored areas will link quality habitats together into a diverse wildlife corridor, creating a mosaic of habitats in various stages of succession to provide nesting sites, food, and cover for Bobwhite Quail, Loggerhead Shrike, Field Sparrow, and Prairie Warbler, and declining or imperiled grassland species such as the Barn Owl, Eastern Meadowlark, Henslow's Sparrow, and Grasshopper Sparrow.

For more information, contact the Piedmont Environmental Council at 540-347-2334; Mary A. Elfner, Virginia IBA Coordinator, 804-788-7660, melfner@audubon.org, or your local NRCS and FSA office.



Grasshopper Sparrow/Laura Erickson



Garden/flickr.com

RESOURCES

Contractors/Consultants:

*Austin Jamison, Chesapeake Wildlife Heritage, 5497 Wyant Lane, Charlottesville, VA 22903
 ajamison@cheswildlife.org • 434-825-7587

*Bob Warring (CF) Forestry Services, 9075 Totier Creek Road, Scottsville, VA 24590 • 434-286-9288

Collins Huff, 8205 James Madison Hwy, Gordonsville, VA 22942 • 540-967-5632 or 434-531-0451

*Dan Hammond, H&H Forest Management, PO Box 370, South Hill, VA 23970 • 434-955-2602

David Coleman, Conservation Services, 50 Lodge Lane, Suite 114, Verona, VA 24482
 trees@conservationservicesinc.com • 877-257-4042

Fred Circle, 2948 Brookdown Dr., Columbus, OH 43235. www.fdcenterprises.com • 866-270-4833

*Glen Worrell, F&W Forestry Services, 404 8th St. NE, Suite C, Charlottesville, VA 22902 • 434-296-1464

*Justin LaMountain, Green Man Forest Management, PO Box 762, Warrenton, VA 20188
 www.GreenManForestManagement.com,
 greenmanforestry@gmail.com • 703-357-2403

Kevin Colbeck SMGC Wildlife Habitat & Restoration, 710 Severn Ave., Annapolis, MD 21403
 smgcgrasses@aol.com • 410-991-1419

*Rex Bowen, In The Woods Land Management, HCR 74, Box 2132, Little Plymouth, VA 23127

Rick Bacon, Kenbridge, VA • 434-955-0139

*Will Argabright, P O Box 1413, West Point, VA 23181 804-785-5046

*Can conduct prescribed burns.

Note: Although it is not comprehensive, the list above reflects our current knowledge of contractors/consultants with experience in forestry and wildlife habitat work who service the Virginia Piedmont area. Your county forester (Department of Forestry) or county wildlife biologist (Department of Game and Inland Fisheries) usually has a list of local contractors for forestry and wildlife habitat work, including prescribed burning, pre-commercial thinning, reseeding, tree planting, writing stewardship plans, wetland restoration, and similar activities.



Bouquet easement area/Faren Wolter

Useful websites:

Native plants: www.dcr.virginia.gov/natural_heritage/nativeplants.shtml

A useful list compiled by the Division of Natural Heritage of the Department of Conservation and Recreation

Invasive species: www.dcr.virginia.gov/natural_heritage/invspdflist.shtml

Another useful list compiled by the Division of Natural Heritage of the Department of Conservation and Recreation

Southern Forests: www.srs.fs.usda.gov

link will take you to their publications page and most information is available at no charge. The USDA Forest Service Southern Research Station is the leading agency for research on natural resource management and sustainability in the Southern United States.

Additional interesting reading:

Center for Conservation Biology. *Migratory Birds of the Lower Delmarva: A Habitat Management Guide for Landowners*.

Frye, K. 1986. *Roadside Geology of Virginia*. Mountain Press. Missoula. 278 pp.

Godfrey, M.A. 1997. *A Field Guide to the Piedmont*. University of North Carolina Press. Chapel Hill. 524 pp.

Jones, A. and P. Vickery. 1999. *Managing Agricultural Lands Including Hayfields, Crop Fields, and Pastures for Grassland Birds*. Grassland Conservation Program, Center for Biological Conservation, Massachusetts Audubon Society, Lincoln, MA, 9 pp.

Kearney, R.F. 2002. *Partners in Flight Landbird Conservation Plan, Physiographic Area 10: Mid-Atlantic Piedmont*. University of Maryland. College Park. 51 pp.

Kenyon, Irv. 2000. *Beyond the Food Patch: A Guide To Providing Bobwhite Quail Habitat*. Wildlife Information Publication 00-01. Virginia Department of Game and Inland Fisheries. Richmond, VA. 44 pp.

Miller, James H. 2003. *Nonnative invasive plants of southern forests: a field guide for identification and control*. Revised. Gen. Tech. Rep. SRS-62. Asheville, NC:U.S. Department of Agriculture, Forest Service, Southern Research Station. 93 p.

Natural Resource Conservation Service. 2002. *Managing Forests for Fish and Wildlife. Fish and Wildlife Habitat Management Leaflet Number 18*. Natural Resource Conservation Service. 44 pp.

Oehler, J.D, D.F. Covell, S. Capel, and B. Long. 2006. *Managing Grasslands, Shrublands, and Young Forests for Wildlife: A Guide for the Northeast*. The Northeast Upland Habitat Technical Committee. Massachusetts Division of Fisheries and Wildlife. 148 pp.

U.S. Geological Survey, 2001. *A Gap Analysis of Virginia*. 763 pp.

Virginia Department of Forestry. 2006. *Virginia Forest Facts*. Available at: www.dof.virginia.gov/resinfo/forest-facts.shtml.

Virginia Department of Game and Inland Fisheries. 1998. *Managing Pines for Profit and Wildlife*. Wildlife Information Publication No. 98-1. Virginia Department of Game and Inland Fisheries. 16 pp

Virginia Department of Game and Inland Fisheries. *Habitat At Home* brochure.



Scarlet Tanager/ClipArt.com



Brandy Station area/Andrew Grigby

American Bird Conservancy

P.O. Box 249

The Plains, VA 20198

www.abcbirds.org • abc@abcbirds.org

540-253-5780 • 888-247-3624

Piedmont Environmental Council

P.O. Box 460, Warrenton, VA 20188

www.pecva.org • pec@pecva.org

540-347-2334

Virginia Department of Game & Inland Fisheries

P.O. Box 11104

Richmond, VA 23230-1104

www.dgif.virginia.gov

804-367-1000





1824 Bristoe Tracts Map

- Bristoe Station Battlefield Heritage Park
- Bristoe Tract Boundary
- Railroad
- Pond or Creek
- Intermittent Stream or other waterway
- 2010 Parcel Boundary

1 inch = 1,000 feet

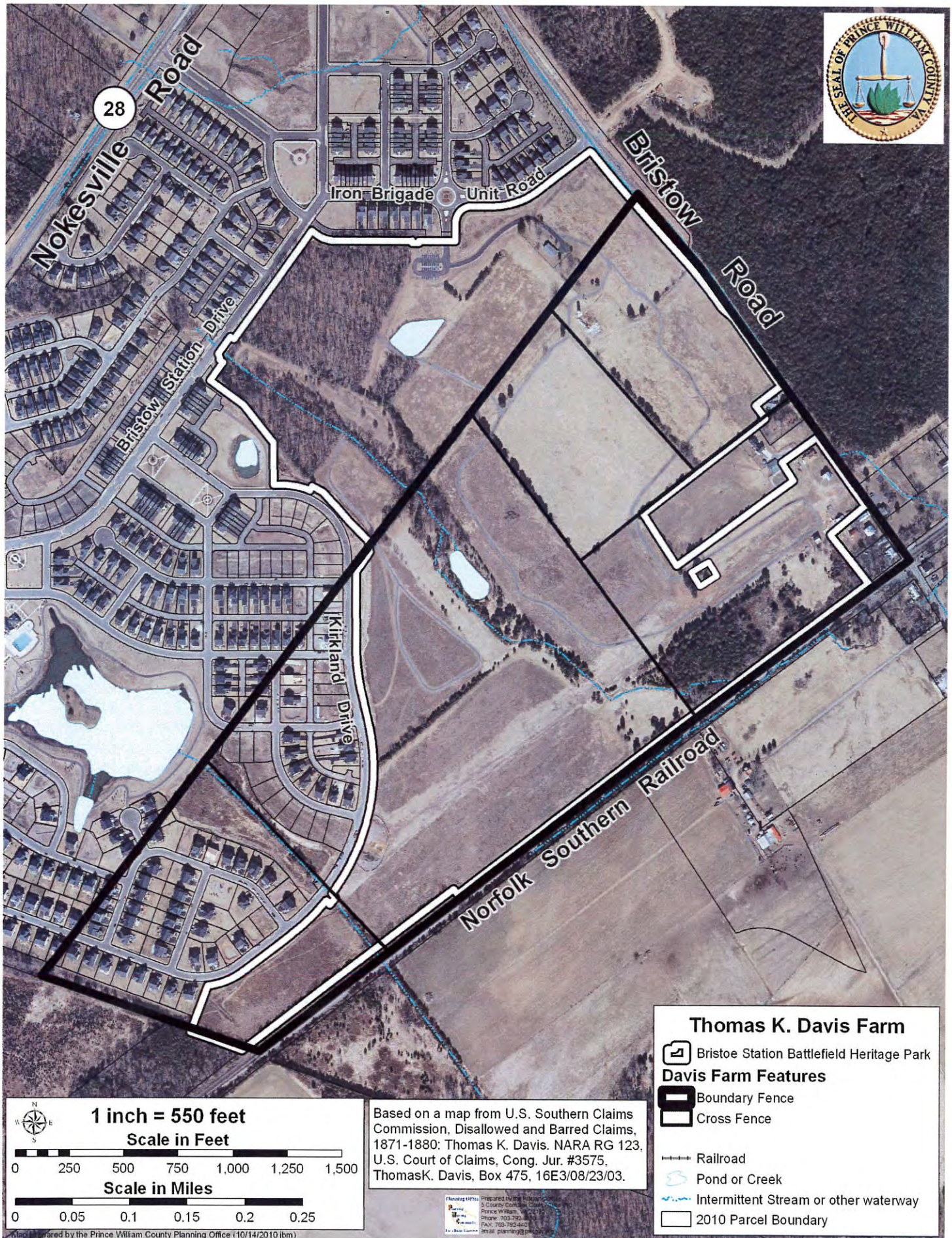
Scale in Feet

0 500 1,000 1,500 2,000 2,500

Scale in Miles

0 0.1 0.2 0.3 0.4 0.5

Map prepared by the Prince William County Planning Office, 10/20/2010



1 inch = 550 feet
Scale in Feet

0 250 500 750 1,000 1,250 1,500

Scale in Miles

0 0.05 0.1 0.15 0.2 0.25

Based on a map from U.S. Southern Claims Commission, Disallowed and Barred Claims, 1871-1880: Thomas K. Davis. NARA RG 123, U.S. Court of Claims, Cong. Jur. #3575, Thomask. Davis, Box 475, 16E3/08/23/03.

Planning Office
Prepared by
3 County Council
Prince William, VA
Phone: 703-792-4400
Fax: 703-792-4402
Email: planning@pw.org

Thomas K. Davis Farm

 Bristoe Station Battlefield Heritage Park

Davis Farm Features

 Boundary Fence

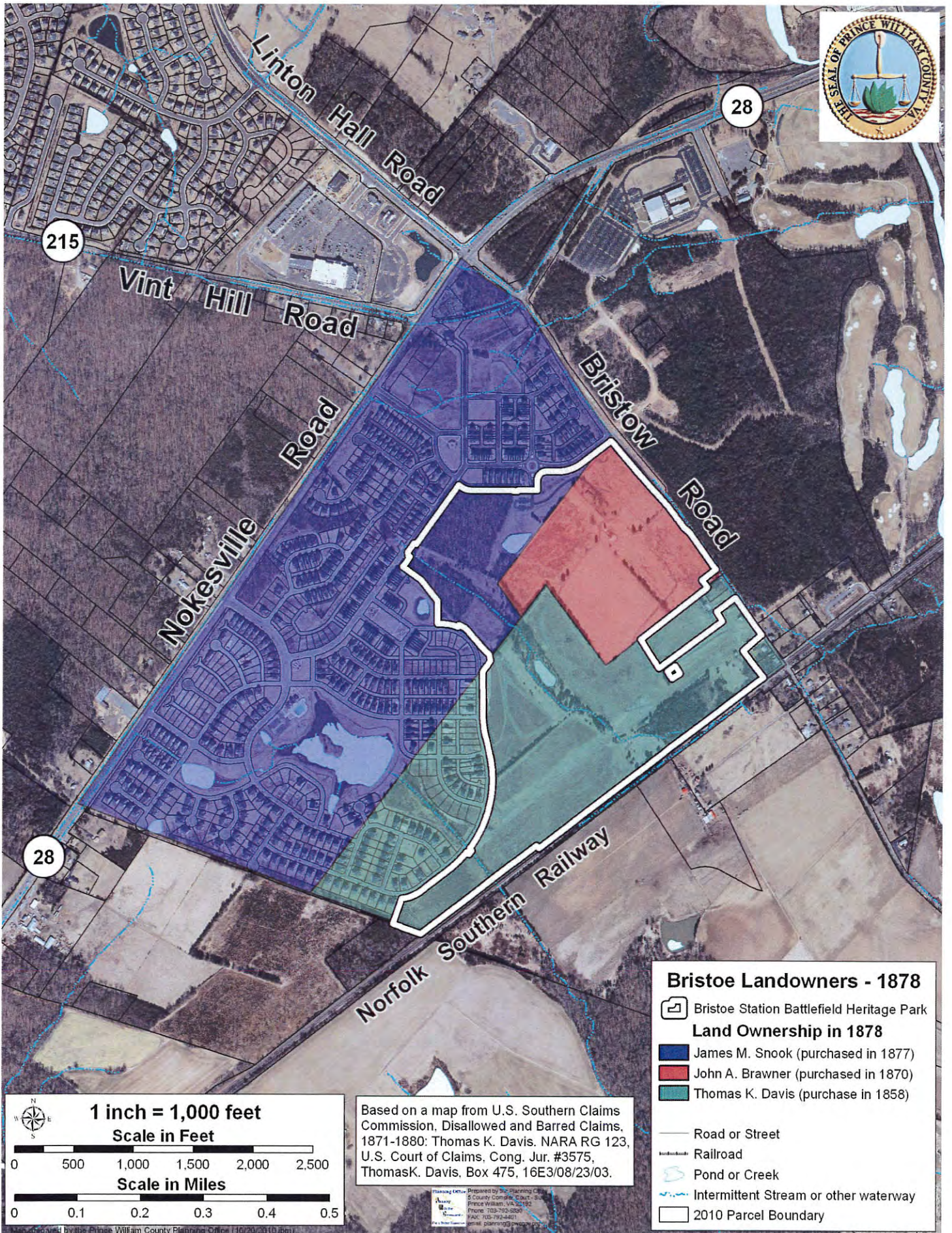
 Cross Fence

 Railroad

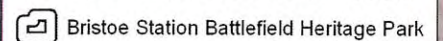
 Pond or Creek

 Intermittent Stream or other waterway

 2010 Parcel Boundary



Bristoe Landowners - 1878



Land Ownership in 1878

- James M. Snook (purchased in 1877)
- John A. Brawner (purchased in 1870)
- Thomas K. Davis (purchase in 1858)

- Road or Street
- Railroad
- Pond or Creek
- Intermittent Stream or other waterway
- 2010 Parcel Boundary

1 inch = 1,000 feet
Scale in Feet

0 500 1,000 1,500 2,000 2,500

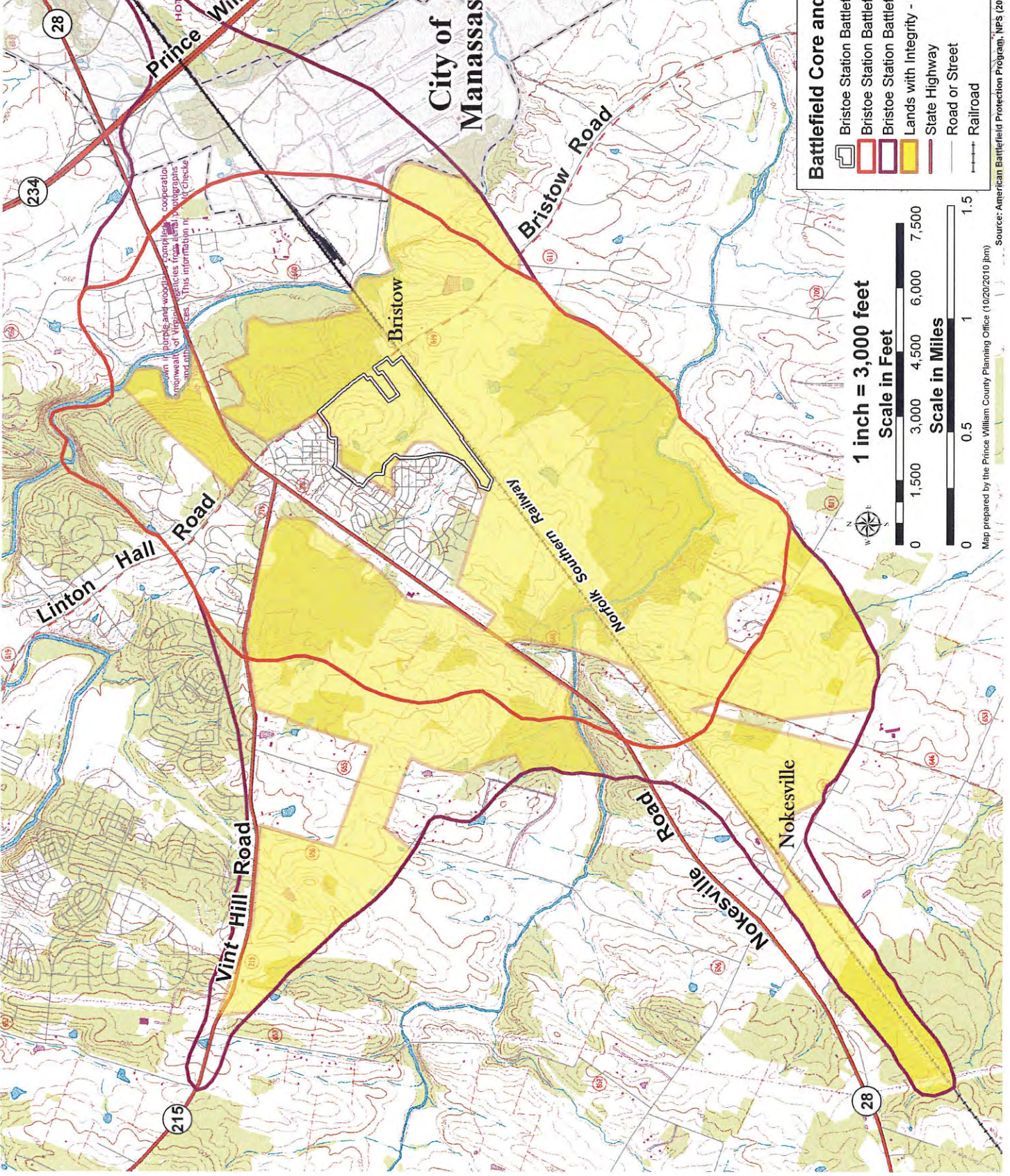
Scale in Miles

0 0.1 0.2 0.3 0.4 0.5

Based on a map from U.S. Southern Claims Commission, Disallowed and Barred Claims, 1871-1880: Thomas K. Davis. NARA RG 123, U.S. Court of Claims, Cong. Jur. #3575, Thomas K. Davis, Box 475, 16E3/08/23/03.

Planning Office Prepared by the Planning Office
S County Complex, 2nd Fl., Prince William, VA 22152
Phone: 703-702-3200
Fax: 703-702-4421
Email: planning@princewilliam.gov





Battlefield Core and Study Areas

- Bristow Station Battlefield Heritage Park
- Bristow Station Battlefield Core Area
- Bristow Station Battlefield Study Area
- Lands with Integrity - 2005
- State Highway
- Road or Street
- Railroad

1 inch = 3,000 feet

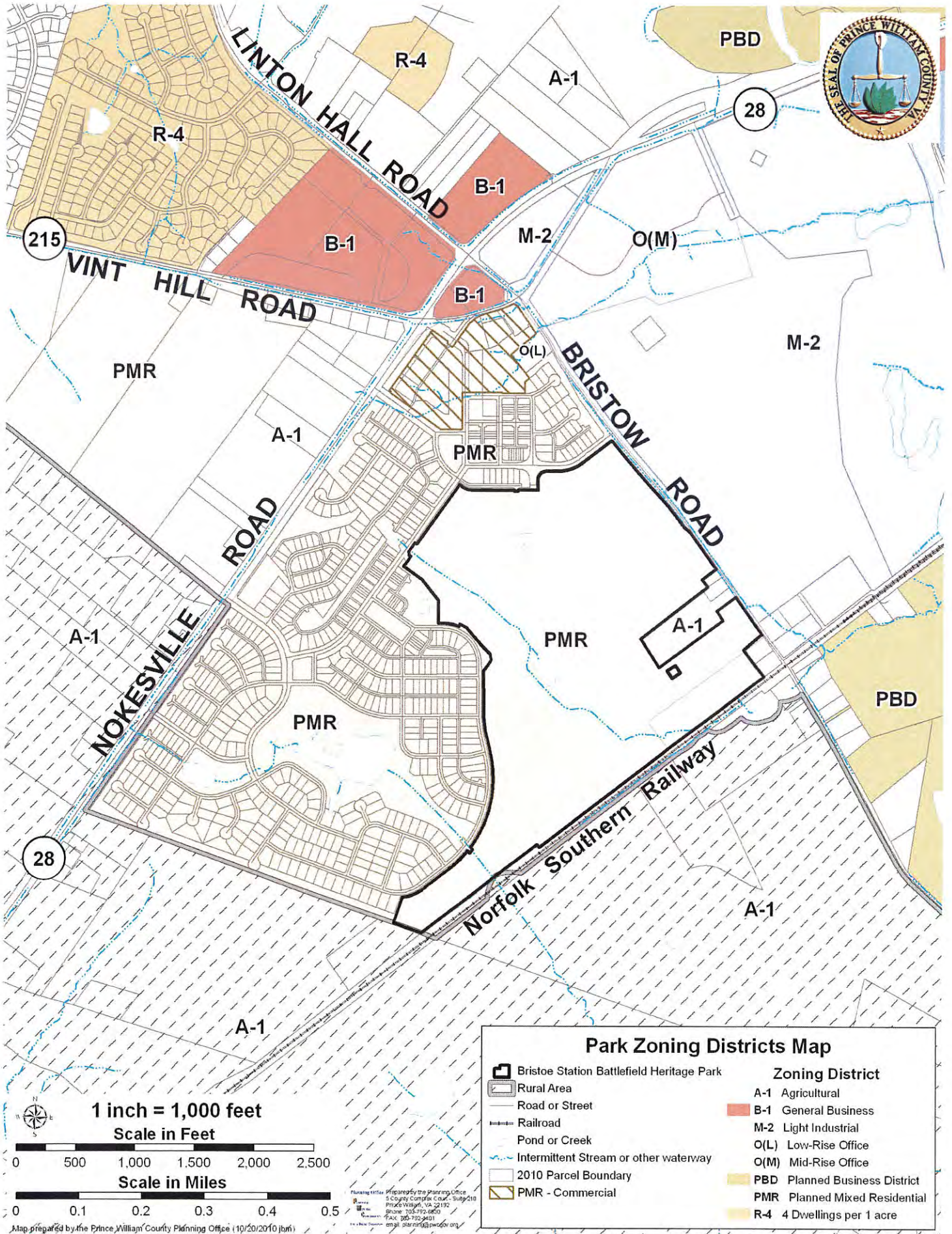
Scale in Feet

0 1,500 3,000 4,500 6,000 7,500

Scale in Miles

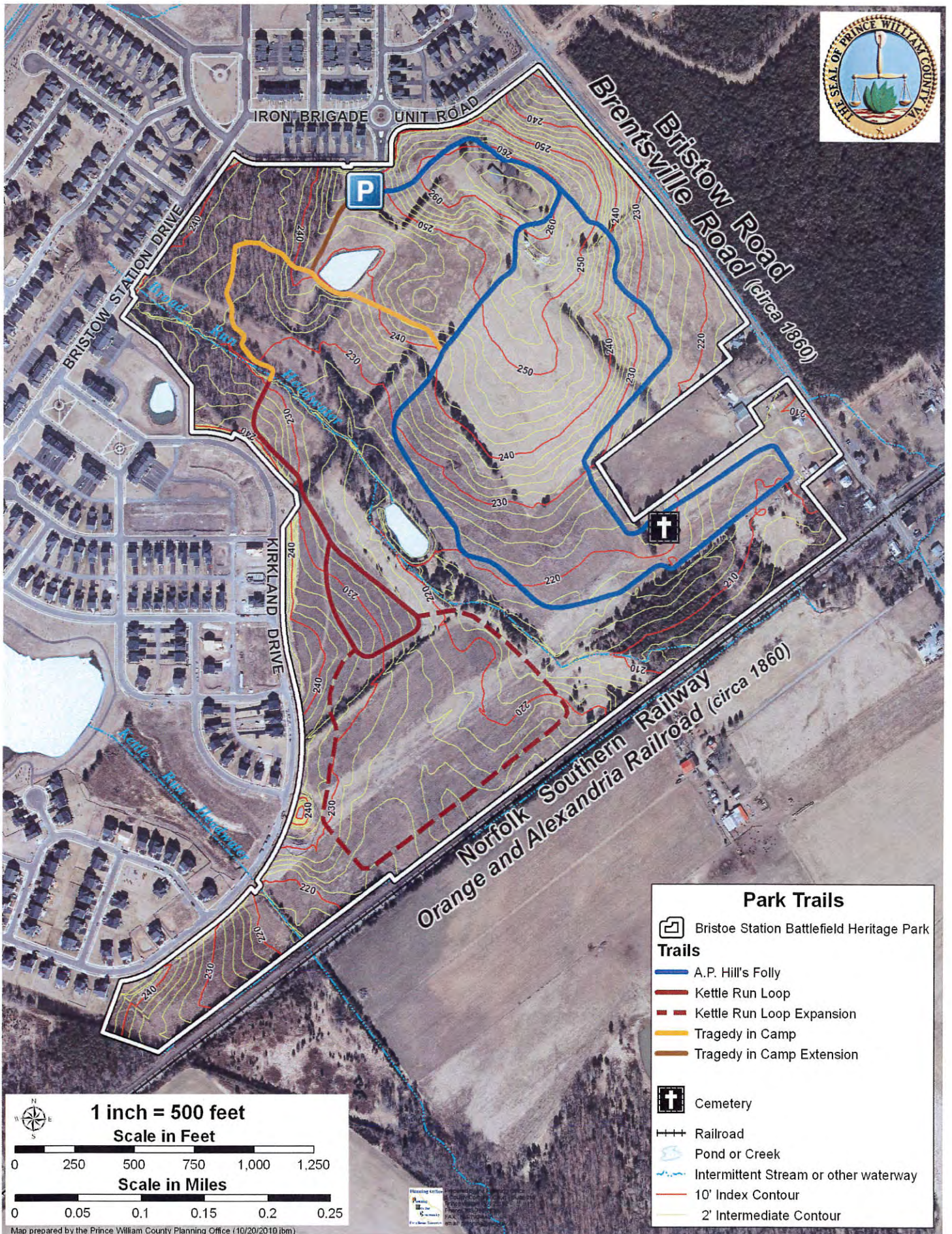
0 0.5 1 1.5

Map prepared by the Prince William County Planning Office (10/20/2010 jbm)
Source: American Battlefield Protection Program, NPS (2007). Field data gathered in 2005.









Park Trails



Bristow Station Battlefield Heritage Park

Trails

- A.P. Hill's Folly
- Kettle Run Loop
- Kettle Run Loop Expansion
- Tragedy in Camp
- Tragedy in Camp Extension



Cemetery



Railroad



Pond or Creek



Intermittent Stream or other waterway



10' Index Contour



2' Intermediate Contour



Bristoe Station Battlefield Heritage Park



BRISTOE STATION BATTLEFIELD HERITAGE PARK MANAGEMENT ZONES

-  **INTERPRETIVE USE AREA**
Provides visitors with a variety of uses that are associated with the various resources of the Park.
-  **PARK OPERATIONS USE AREA**
Provides staff with an area to support the functions of the Park and the Historic Preservation Division.

9-1-2010 HH

0 250 500 750 1,000 Feet



Melissa S. Peacor
County Executive

COUNTY OF PRINCE WILLIAM

OFFICE OF EXECUTIVE MANAGEMENT

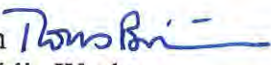
1 County Complex Court, Prince William, Virginia 22192-9201
(703) 792-6600 Metro 631-1703 FAX: (703) 792-7484

BOARD OF COUNTY SUPERVISORS

Corey A. Stewart, Chairman
Maureen S. Caddigan, Vice Chairman
Pete Candland
John D. Jenkins
Jeanine M. Lawson
Michael C. May
Martin E. Nohe
Frank J. Principi

May 11, 2015

TO: Board of County Supervisors

FROM: Thomas Bruun 
Director of Public Works

THRU: Melissa Peacor
County Executive

RE: Endorse the General Management Plan for Bristoe Station Battlefield Heritage Park – Brentsville Magisterial District

I. **Background** in chronological order is as follows:

- A. County-Owned Historic Sites – The Historic Preservation Division manages County-owned historic sites, including Bristoe Station Battlefield Heritage Park.
- B. Public Use of County Historic Sites – The Historic Preservation Division opens the County historic sites to the general public for tours, programs, rentals and special events. Volunteers support the efforts of staff in all aspects of the preservation effort.
- C. Bristoe Station Battlefield Heritage Park – The site opened to the public in October of 2007. The trails are open daily with interpretive markers and a cell tour available. Guided tours are also offered as well as historical programs.
- D. Management of the Bristoe Station Battlefield Heritage Park – In accordance with best management practices for cultural and natural resource management, the County developed a General Management Plan (GMP) for the property

- E. General Management Plan Committee – In 2010, staff invited various stake holders to assist County staff in drafting a GMP. Stakeholders included: New Bristow Village Homeowners Association, Nokesville Horse Society, Planning, Public Works and Prince William County Historical Commission, local historians, and the Virginia Native Plant Society.

II. Current Situation is as follows:

- A. General Management Plan – The GMP committee developed the plan with the assistance of local and state authorities on Battlefield protection and natural resource management. The GMP includes an in depth history of the property including troop movements and historic images.
- B. Purpose of the General Management Plan –The purpose of the GMP is to provide staff written guidelines for the management of the Battlefield. The GMP includes prescriptions for the protection of cultural and natural resources, maintenance, and meadow management.
- C. Meadow Management –The GMP calls for the management of over 100 acres of grasslands on the Battlefield to follow the guidelines of the “Managing Lands in the Piedmont of Virginia” the document was developed and published by the Virginia Department of Game and Inland Fisheries.
- D. Perpetual Historic Conservation Easements – In 2008, the Board of County Supervisors approved a perpetual historic conservation easement on the Park with The Virginia Department of Historic Resources (VDHR). The GMP incorporates the easement conditions in the management prescriptions for the protection of cultural and natural resources.
- E. Public Input – The various committee stakeholders include members of the public. The draft GMP was further vetted through public meetings.
- F. New Bristow Village Home Owners Association Approval – The Committee met on several occasions with the Governing Board of the New Bristow Village Homeowners Association (NBVHOA). On February 14, 2011 the NBVHOA endorsed the current draft GMP.

- G. General Management Plan Public Meetings – Starting in November 2010, County staff hosted public meetings at the Old Manassas Courthouse in Manassas, VA. The meetings were advertised in local newspapers and on the County's website. Twenty-two citizens attended two information sessions and presentations. The overall majority of those in attendance supported the proposed GMP. All citizen concerns were noted, and where applicable, county staff adjusted the GMP to alleviate concerns where appropriate.
- H. Board Action Requested – The Board is requested to endorse the GMP for Bristoe Station Battlefield Heritage Park.

III. Issues in the order of importance:

- A. Legal – Are there legal issues associated with the GMP?
- B. Service Level/Policy Issues – Are there service level/policy issues anticipated with the approval of the GMP?
- C. Timing – If approved, when does the GMP take effect?
- D. Fiscal Impact – What is the impact on County funds by approving the GMP?

IV. Alternatives in the order of feasibility:

- A. Endorse the GMP for the Bristoe Station Battlefield Heritage Park.
 - 1. Legal – The rezoning of the property in 2002 (REZ #2001-0157) includes proffer 11.8 designating the property as a public park. Approval of the GMP clarifies the County's approach to managing the maintenance and landscaping of the Battlefield as a cultural and natural resource.
 - 2. Service Level/Policy Issues – With an approved GMP, County staff will have a framework to properly manage Bristoe Station Battlefield Heritage Park. The GMP's identified management practices coincides with the perpetual historic conservation easement on the property held by the Virginia Department of Historic Resources.

3. Timing – Staff is managing the Battlefield in accordance with the draft GMP. Approval of the Board of County Supervisors will acknowledge the importance of the GMP.
4. Fiscal Impact – There is no fiscal impact.

B. Take No Action

1. Legal –The County will not clarify the County’s approach to managing the maintenance and landscaping of the Battlefield as a cultural and natural resource as related to proffer 11.8 of REZ #2001-0157.
2. Service Level/Policy Issues – The County will not have an approved framework to properly manage Bristoe Station Battlefield Heritage Park.
3. Timing – Staff is managing the Battlefield in accordance with the draft GMP. The County will not have a plan to manage the Battlefield for the protection of the cultural and natural resources.
4. Fiscal –Does not apply

V. **Recommendation** is for the Board of County Supervisors to approve Alternative A and Endorse the GMP for Bristoe Station Battlefield Heritage Park.

Staff Contact: Brendon Hanafin, 792-6709

BRISTOE STATION BATTLEFIELD HERITAGE PARK

GENERAL MANAGEMENT PLAN

ADDENDUM: ROLLINS TRACT (22.36 ACRES)



BATTLE OF BRISTOW, OCT. 14th, 1863.
THIRD BRIGADE, 3D DIV., 2D CORPS.
Seizing the Railroad Cut.

Prince William County Department of Parks and Recreation
Office of Historic Preservation
17674 Main Street, Dumfries, VA 22026
703-792-1731
Pwcva.gov/history

Prepared November 1, 2025

**Bristoe Station Battlefield Heritage Park
General Management Plan Addendum
Table of Contents**

I.	Introduction		
	A. Addendum Purpose		4
	B. Overview of the Rollins Tract		4
II.	Existing Conditions		
	A. Existing and Planned Use, Zoning		5
	B. Existing and Planned Visitor Use.		5
	C. Cultural Resources		5
	1. Archaeological Sites		5
	2. Battlefield Landscape		6
	3. Cemeteries		7
	4. Agricultural Features		7
	5. Historic Roads and Paths		7
	6. Structures		7
	D. Natural Resources		
	1. Fauna		8
	2. Flora		8
	3. Soils and Geology		9
	4. Topography and Slopes		10
	E. Park Access		10
	F. Existing Facilities		10
	G. Utilities		10
	H. Description of Adjacent Properties		10
III.	Management and Development		
	A. Cultural Resource Management		11
	B. Natural Resource Management		12
	C. Desired Visitor Experience		13
	D. Interpretation and Visitor Services		14
	1. Information and Interpretive Media		14
	E. Site Considerations.		15
IV.	Management Framework		
	A. Cultural Resource Protection Zone		15
	B. Natural Resource Protection Zone		15

	C. Interpretive Use Area	.	.	.	.	.	16
	D. Park Operations Use Area	.	.	.	.	.	16
	E. Glossary of Uses	.	.	.	.	.	17
V.	Implementation Actions						
	A. Short-Term	.	.	.	.	.	18
	B. Mid-Term	.	.	.	.	.	19
	C. Long-Term	.	.	.	.	.	19
VI.	Appendices						
	A. Supporting Documentation						
	1. DHR Easement	.	.	.	.	.	21
	2. <i>Managing Land in the Piedmont of Virginia for the Benefit of Birds & Other Wildlife</i>	.	.	.	.	.	51
	B. Maps	.	.	.	.	.	83

I. Introduction

A. Addendum Purpose

The Bristoe Station Battlefield Heritage Park General Management Plan (GMP) was created to serve as a guide for all future planning and programming of Bristoe Station Battlefield Heritage Park (BSBHP). The addendum to the current plan describes the existing conditions and constraints of the Rollins Tract, details the desired visitor experience, and identifies “management zones.” Uses are described in general terms and must be flexible to accommodate the changing needs of BSBHP and its visitors. This document should be referred to before future planning and design projects are started.

B. Overview of the Rollins Tract

The Rollins Tract consists of two parcels at 10806 Bristow Road, Bristow, VA. Parcel 7594-77-3726 is 12.309 acres. Parcel 7594-76-0448 is 10.0503 acres. Together, the two parcels total 22.36 acres.

The American Battlefield Trust (ABT) purchased both parcels late in 2021. On June 26, 2024, ABT and the Commonwealth of Virginia Board of Historic Resources (VDHR) agreed upon a Historic Preservation and Open-Space Easement on both parcels.

On December 10, 2024, the Prince William County Board of Supervisors (BOCS) voted unanimously to approve a purchase agreement of \$215,000 for the Rollins Tract, which was finalized on August 14, 2025.

II. Existing Conditions

A. Existing and Planned Use, Zoning

The Rollins Tract of BSBHP is on the edge of the County's Development Area, which is planned for commercial, office, and industrial use as well as higher density residential uses. The Rural Area that extends to the south and west is planned for agricultural and large lot (10 acres or more) estate uses. The Development Area extends from the tract to north, northeast, northwest, and west.

While the tract is undeveloped and zoned for Parks Open Space, the land immediately adjacent to it is currently zoned for Conservation Residential Land Use.

The Rollins Tract encircles one lot zoned for Conservation Residential Use at the southern corner of Bristow Road and the Norfolk Southern Railroad.

The land north of the railroad is part of Bristoe Station Battlefield Heritage Park. On the other side of Bristow Road, 152 preserved acres encircle three lots zoned for Industrial (Tech/Flex) designation, one of which is directly across the road from the entrance to the Rollins Tract. Though not immediately adjacent to the tract, Valley View Park is approximately one mile south of it.

B. Existing and Planned Visitor Use

Staff expect to fully incorporate the Rollins Tract into BSBHP. This includes hosting special events and tours several times per year to mark the anniversaries of the battles of Kettle Run and Bristoe Station. Additionally, self-guided trails and waysides as well as a parking lot and visitor orientation area are planned for the parcel.

C. Cultural Resources

1. Archaeological Sites

One archaeological site has been identified within the boundaries of the Rollins Tract and listed on the Virginia Department of Historic Resources archaeological site inventory. The site is not eligible for listing on the National Register of Historic Places. All known archaeological sites, archaeological features that are identified but have not been formally investigated, and areas where unidentified archaeological resources may exist are placed within the Cultural Resources Protection Zone.

2. Battlefield Landscape

Several landscape features on and adjacent to the Rollins Tract were significant during the Battle of Kettle Run (August 27, 1862) and the Battle of Bristoe Station (October 14, 1863).

a. The Orange and Alexandria Railroad (currently Norfolk Southern Railroad) was located along the northern boundary of the tract. It was chartered in 1848 and reached Bristoe Station in the spring of 1852. On August 26, 1862, Confederate troops under the command of General “Stonewall” Jackson defeated the small Federal garrison defending the station and captured it. They destroyed tracks and bridges, cut telegraph lines, and derailed two trains. The next day, the 60th Georgia Infantry advanced along the railroad and took positions along it for use as a breastwork to engage Federal soldiers on the other side of the railroad. During the Battle of Bristoe Station, Federal soldiers used the railroad embankment to repulse a Confederate attack against them.

b. Brentsville Road (currently Bristow Road/Route 619) was the main thoroughfare between Gainesville and Brentsville. Confederate forces lined the road and engaged Federal forces from nearby positions during the Battle of Kettle Run. The Battle of Bristoe Station centered around the intersection of Brentsville Road and the Orange and Alexandria Railroad.

c. High ground on the tract may have been the position of Arnold’s battery during the 1863 battle as well as a concentration of Federal artillery later in the day.

d. Agricultural fields with a likely similar layout to how they were configured in 1862 and 1863 witnessed troop movements and troop positions. The 60th Georgia Infantry advanced down the railroad across these fields in 1862. General Joshua Owen’s Federal brigade advanced across them under fire toward the railroad during the 1863 battle.

e. Water features that existed at the time of the battle include a feeder stream to Broad Run in the northern corner of the parcel.

3. Cemeteries

There are no known and delineated burials at this parcel. Archival research shows that numerous Civil War dead were buried in the area between 1861-1864. Some of these documented burials may have been on this parcel and later removed. No Civil War-era grave shafts have yet been identified.

4. Agricultural Features

a. The precise layout of agricultural fields on the tract at the time of the Civil War is unknown. Period maps show the landscape as open. Trees have grown along the boundary line between the tract and the Norfolk Southern Railroad. Also, there is a small grove of trees around a feeder stream in the northern corner of the parcel that does not appear on period maps.

5. Historic Roads and Paths

a. Brentsville Road (currently Bristow Road/Route 619) is a major east-west thoroughfare and was likely around before European colonization.

b. Historic road traces are not known to exist in the Rollins Tract. Historic maps show are a farm road running parallel to the railroad through the property.

6. Structures

Eleven structures stand within the boundaries of the Rollins Tract, all likely dating from the 20th century:

a. Domestic house at 10806 Bristow Road appears in the earliest aerial photographs taken of the property in 1937.

b. A small, portable wooden shed stands immediately south of the house.

c. A small cinder block building stands near the small, portable wooden shed. This shed is visible in aerial photographs taken of the property in 1954.

d. A large cinder block barn and attached overhangs are west of the house. This barn is visible in aerial photographs taken of the property in 1954.

e. Four steel grain silos stand south of the house on the opposite side of the driveway.

f. A small wooden barn stands across the driveway from the grain silos.

g. One concrete tower silo is south of the four steel grain silos.

i. A wooden barn and adjacent overhangs are immediately adjacent to the tower silo. This barn is visible in aerial photographs taken of the property in 1954.

D. Natural Resources

1. Fauna

There has not been a formal inventory of wildlife at BSBHP and the Rollins Tract. It is known that many of the County's urban and rural park sites have a rich diversity of wildlife including deer, fox, reptiles, amphibians, and birds. The Office of Historic Preservation's mission and policies require the preservation and protection of this population. This protection, currently in place at BSBHP, takes many forms, including having volunteers and partnering organizations monitor the wildlife populations at the park. There are other programs and activities such as blue bird boxes, managing meadows to support wildlife that is dependent on that habitat, and the establishment of hedgerows and brush piles for small mammals and amphibians. The Office of Historic Preservation is aware of several species that are known to be present within the area of BSBHP that are listed as Special Status Faunal Species by the Virginia Department of Game and Inland Fisheries. Special Status Faunal Species are threatened or endangered species. Careful monitoring by staff and volunteers will take place.

2. Flora

The Rollins Tract contains distinct meadow areas and forest stands. Office of Historic Preservation staff have worked closely with the County Arborist and Grounds staff to ensure the health of these environments.

Meadow management has already been used regularly at BSBHP and will be applied as needed at the Rollins Tract to increase the establishment of warm season grasses and native plants (Little Bluestem, Switchgrass, and Black Eyed Susan) and the removal of invasive or unwanted species (Johnson grass, cool season turf grass). Methods used can include but are not limited to chemical control (carefully monitored herbicide applications), mechanical control (disking, prescribed fire, hand pulling) and cutting some meadows on an annual schedule rather than a semi-annual schedule.

The forest stand in the northern corner of the property consists mostly of deciduous trees of an unspecified species. The tree line along the railroad tracks is dominated by Eastern Redcedar (*Juniperus virginiana*).

3. Soils and Geology

There are 5 soil units mapped on the site by the Prince William County Mapper. The soils present in the hay fields are 4B (Arcola silt loam), 5C (Arcola-Nestoria complex), 17A (Dulles silt loam), 35B (Manassas silt loam), and 48A (Reaville silt loam). The majority of the fields have 4B and 5C soil in them, part of the Arcola soil series.

Arcola silt loam is a well to moderately drained silt loam developed on gentle slopes over residual shale and siltstone, with moderate permeability. Arcola-Nestoria complex is a composite of Arcola silt loam intermingled with Nestoria components on steeper terrain, combining moderate drainage with more erosion susceptibility. Dulles silt loam is a nearly level, moderately drained silt loam that may show seasonal wetness and some shrink-swell behavior. Manassas silt loam is a well or moderately-well drained silt loam formed in colluvial and residual materials with moderate permeability. Reaville silt loam is a gently sloping, moderately drained silt loam with relatively low slope and moderate water movement.

The Arcola soil series is formed from Triassic and Jurassic interbedded siltstone, fine-grained sandstone, and conglomerate. Nestoria is developed in materials weathered from Triassic and Jurassic red beds. The Dulles soil series is formed by residuum and colluvium from Triassic and Jurassic interbedded fine sandstone, siltstone, and shale. The Manassas soil series is found in the Piedmont region and derives from

colluvial and residual materials originating from shale, siltstone, and conglomerate. Reaville soils are developed in residuum from red Triassic interbedded shale, siltstone, and fine-grained sandstone.

4. Topography and Slopes

Topography on the Rollins Tract is gently sloping to the north and south. The ground rises along the south and west sides of the Tract. An intermittent stream of Broad Run runs east through the northern corner of the property.

The highest point on the property is just north of the steel grain silos at 226 feet above sea level. The lowest point on the property is in the grove of trees on the northern corner of the property near the intermittent stream to Broad Run at approximately 195 feet above sea level.

E. Park Access

Currently, this Tract is not open to public visitation except on special tours.

There is currently one primary point of access to the Rollins Tract. The primary access point is along Bristow Road. From this entrance, visitors will enter the Tract along a gravel driveway that will lead them to a parking lot and information kiosk. Walking trails will emanate from the parking lot.

F. Existing Facilities

Eleven buildings currently stand on the Rollins Tract but are slated to be demolished or removed from the property per the easement placed on the property (see Appendix B: Supporting Documentation). The gravel driveway that currently exists on the Tract will be used to provide access to the property for staff and visitors.

G. Utilities

The majority of the area surrounding the Tract is fully developed with utilities. Future development of the Rollins Tract can access these utilities. The house, two barns, and steel grain silos are serviced by electricity.

H. Description of Adjacent Properties

The Rollins Tract is located southwest of the intersection of Route 28 (Nokesville Road) and Route 619 (Bristow Road). The Norfolk Southern Railroad forms the northern boundary of the property. It is immediately

surrounded by open farm fields on its south and west sides. Two small residential lots along Bristow Road and the road itself form the east side of the Tract.

Directly opposite the Rollins Tract on the other side of the railroad is the main unit of BSBHP. This section of BSBHP includes open meadow fields, woodlots, and approximately three miles with interpretive waysides of improved walking trails of gravel, asphalt, and natural surfaces. The park office and main parking lot are in this section of BSBHP.

Railroad tracks (historic trace of the Orange and Alexandria Railroad) run along the north boundary of the Rollins Tract. Near the intersection of Bristow Road and the railroad tracks is the historic village of Bristow or Bristoe Station. The Davis-Beard House at 10726 Bristow Road, Bristow, VA, is listed on the National Register of Historic Places. These buildings all date from the post-Civil War period up to the 1960s. Also near this area is the monopole cellular phone tower that was constructed in 2008 near the Norfolk Southern Railway crew changing station. This monopole can be seen from all areas of the Rollins Tract.

The land along Bristow Road has several residential homes along both sides of it, including two that stand between the Rollins Tract and the road.

On the other side of Bristow Road is agricultural land of 152 acres owned by the American Battlefield Trust. The land has large, open fields for agricultural use as well as large, wooded areas that cover the swath of land between Bristow Road and Broad Run.

The land south and west of the Rollins Tract is owned by two different owners. The land consists of large agricultural fields and woodlots.

III. Management and Development

A. Cultural Resource Management

The Rollins Tract rests entirely within the core area of two Civil War battlefields. There were also likely encampments within the boundaries of the property also. BSBHP's mission also includes interpreting the village of Bristoe Station and its residents. Currently, all interpretation—both guided and self-guided—

is conducted at the main unit of BSBHP through guided tours, special events, walking trails, and interpretive waysides.

The details of Cultural Resource Management at the Rollins Tract should be developed in a separate Cultural Resource Management document and/or Interpretive Plan. The plan should address site management related to erosion control, repair of man-made disturbances, monitoring for relic hunting activities, restoration of the historic viewshed when possible (to include selective removal of trees, partial reestablishment of the agricultural fields present at the time of the Civil War) and site enhancements.

Future interpretation and visitor services will also be included in the Cultural Resource Management and Interpretation Plans. Site interpretation will be provided on site and through a combination of signage, panels, reconstructed fencing, viewsheds to orient visitors and programs designed to commemorate events and educate the public and special groups.

Currently, several policies are in place through Prince William County and the Commonwealth of Virginia that relate to Cultural Resource Management at BSBHP and the Rollins Tract. These include the Prince William County Office of Historic Preservation's Collections Management Manual (2019) and other applicable Prince William County Department of Parks and Recreation Policies and Standards. Also, the Virginia State Department of Historic Resources (DHR) holds an easement on the Rollins Tract. Any major changes, disturbances, uses of the Tract, or enhancements must be approved by DHR beforehand. In every instance in dealing with cultural resource management, the highest professional standards will be followed. The Tract encompasses many sensitive resource areas, so the strictest guidelines must be enforced.

B. Natural Resource Management

The natural resources at the Rollins Tract consist of a small woodlot, open meadows, hedgerows, and a perennial stream. Some of the woodlots and hedgerows will be maintained by removing dangerous and dying trees and allowing some clearing to enhance interpretation of the cultural resources. Meadows will be maintained to protect the natural resources of the Tract, as well as allow for interpretation of cultural resources. Meadow maintenance will include haying, bush hogging, establishment of native warm season grasses, and the removal of invasive plant species. The areas of the resource indicated as meadows will not be mowed on a regular basis and will be

maintained in accordance with generally accepted meadow management procedures. Appendix VI.A.2, *Managing Land in the Piedmont of Virginia for the Benefit of Birds & Other Wildlife* (Third Edition, 2016), will be used as a guide for meadow management. Invasive plant species control and removal will also take place in woodlots and along hedgerows. Invasive plant species control is a large problem throughout the County. The Office of Historic Preservation does not have adequate resources to address the issue in all parks and historic sites. Invasive plant removal projects may be carried out by volunteers or as a special project.

An exotic or invasive species is defined as any species not native to a geographic area. Invasive species are often present as naturalized species or are planted as landscape trees and shrubs. An invasive species is one that escapes from cultivation, spreads rapidly and occurs in greater abundance than may be desired. If not actively managed, these species may displace other native plant species.

To date five exotic species have been identified within the vicinity of the Rollins Tract as potentially invasive. The species are multiflora rose, Japanese honeysuckle, garlic mustard, tree of heaven, and English ivy.

There are no known wildlife concerns. The Office of Historic Preservation is aware of several species that are known to occur within the area of the Tract that are listed as Special Status Faunal Species by the Virginia Department of Game and Inland Fisheries. Special Status Faunal Species are threatened or endangered species. Careful monitoring by staff and volunteers will take place.

C. Desired Visitor Experience

Visitors to BSBHP and the Rollins Tract will consist of local visitors as well as regional, national, and international visitors. Programming will be designed to meet the diversity of these audiences.

The desired visitor experience at the Tract is for visitors to:

- Learn the history and significance of the battles of Kettle Run and Bristoe Station.
- Learn about the tactical strategies of both battles.
- Learn the history and significance of Camp Jones.
- Observe and respect the historic landscape and the cultural, natural, and archaeological resources in the Rollins Tract.

- Learn and observe the natural history of the County.
- Participate in regularly scheduled interpretive tours, school, and public programs.
- Experience occasional special events, living history, and ceremonies.

D. Interpretation and Visitor Services

1. Information and Interpretive Media

Current interpretation at BSBHP includes three self-guided walking trails: the Alabama Cemetery Trail, the 1862 Trail, and the 1863 Trail. Interpretive waysides are posted at prominent points along each trail that interpret the events that occurred at those locations. These signs include images and maps to enhance the visitor experience.

BSBHP staff are also developing a video driving tour that will be hosted on the park's website. This tour will take visitors to the different park units and sites of significance not within the boundaries of BSBHP.

Interpretive materials are made available through the County website, the Office of Historic Preservation's social media pages, and the Office of Historic Preservation's YouTube channel. These online materials include downloadable PDF files of maps as well as video tours.

The plan for interpretation at the Rollins Tract is similar. It will include two distinct walking trails, one for each battle. Both trails will emanate from a parking lot with a central kiosk. Interpretive waysides explaining the history of the Tract will be posted at appropriate points along each trail.

The Tract will be featured as part of special events and programs, especially tours during battle anniversary commemorations in August and October. It is unclear how guided tours of BSBHP will incorporate the Rollins Tract.

With the anticipation of more land besides the Rollins Tract being added to BSBHP, park staff have discussed creating a driving tour of the park. At each stop, visitors will be able to exit their vehicles and walk each park unit. Creating a walking tour connecting the various parcels is infeasible and dangerous due to heavy traffic along Bristow Road and the Norfolk Southern Railroad bisecting the battlefield.

E. Site Considerations

Development around the Rollins Tract and BSBHP will impact both sites. New Bristow Village is visible from the Rollins Tract, as are several modern buildings along Bristow Road to the east and Valley View Drive to the south. A screen of trees along the railroad and road blocks some views of modern intrusions.

More traffic in this section of the County due to increased commercial and residential development threatens the viewshed from the Rollins Tract. Additionally, increased noise from this traffic as well as from the nearby Manassas Regional Airport have a direct impact on the experience of visitors to BSBHP.

V. Management Framework

The management framework integrates research, site analysis, and basic data presented in this document. Management zones have been defined to provide a framework for future decision making and provide choices within a range of potential uses for each management zone. Existing uses, conditions, and recommendations from Prince William County staff were considered in the development of the management zones. Use Areas are also detailed in certain areas of the Rollins Tract. A zone map is in the appendix.

A. Cultural Resource Protection Zone (CRPZ)

The entire Rollins Tract will be treated as a valuable cultural resource and protected as a resource protection zone. The CRPZ will be maintained to protect the cultural resources located in the zone.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Research
- Resource Management

B. Natural Resource Protection Zone (NRPZ)

The entire Tract will be treated as a valuable natural resource and protected as a resource protection zone. The NRPZ will be maintained to protect the natural resources located in the zone. Professional practices to foster native wildlife and plant life will be instituted. These practices will be in accordance

with guidelines prescribed in *Managing Land in the Piedmont of Virginia for the Benefit of Birds & Other Wildlife* (Third Edition, 2016).

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Research
- Resource Management

C. Interpretive Use Area

Interpretive Use Areas provide visitors with a variety of uses that are associated with the various resources of the Tract. The focus of this area will be to orient visitors to the Tract, interpret its resources and provide program space for special programs and events. This area also includes the Tract's proposed trail network and parking lot areas. The area within this zone will be landscaped according to current Department of Parks and Recreation standards. In-depth surveys will be undertaken prior to any land-disturbing activity.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education
- Cultural Demonstrations
- Low Impact Recreation
- Visitor Entrance
- Research
- Resource Management
- Resource Protection
- Support Infrastructure

D. Park Operations Use Area

This area provides staff the ability to support the functions of BSBHP and the Office of Historic Preservation. The area in this zone will be landscaped according to current Department of Parks and Recreation standards. In-depth surveys will be undertaken prior to any land-disturbing activity.

1. Potential Uses Permitted:

- Historic Restoration
- Interpretation and Education

- Cultural Demonstrations
- Park and Division Maintenance Support
- Research
- Resource Management
- Resource Protection
- Staff Entrance
- Support Infrastructure

E. Glossary of Uses

Historic Restoration: Includes restoration of the historic landscape (ground cover, structures, and viewsheds) as defined by the Rollins Tract's historic period of significance (1861-1865). This information will be based on historic research and done with great care to protect all existing natural and cultural resources.

Interpretation and Education: Involves communicating information specific to the significance of the Tract. These include the unique characteristics of the resources associated with the Tract and the relationships of humans and natural systems. Also, these activities should strive to increase visitor enjoyment and involvement in resource protection. Interpretive programs and educational workshops, brochures, displays, and signage at the Tract are methods of conveying this information and are critical tools to interpretation and education.

Cultural Demonstrations: Cultural demonstrations that are allowed within BSBHP include living history programs, replicated military encampments, and historic weapons firing demonstrations. Allowed cultural demonstrations must follow all policies and guidelines defined in the Office of Historic Preservation's Collections Management Manual (2019) and the Office of Historic Preservation's Regulations for Historic Weapon Demonstrations at County Historic Sites (2021). Battle reenactments are prohibited in all cultural landscapes managed by the Office of Historic Preservation.

Low Impact Recreation: Recreational activities will cause minimal disturbance to the Tract's natural and cultural resources. These activities will require little, if there is any infrastructure. Also, activities must be conducted with respect to the nature and mission of BSBHP.

Park and Maintenance Support: Uses associated with park operations, maintenance and staff support, including equipment and maintenance supply storage, interpretive storage, staff offices/break areas, and other functions to support park activities.

Research: Staff investigation aimed at the discovery and interpretation of facts, the revision of accepted theories or the development of practical applications considering new facts. One time, periodic, or ongoing research could include archaeological and historic surveys and studies, water and air quality monitoring studies, and vegetation and wildlife inventories. Public agencies, educational organizations, professional consultants or volunteers would be authorized by Prince William County to conduct this work.

Resource Management: Staff will increase the understanding of natural processes, recognition of human influence upon the land and the need for stewardship of that land. Resource management plans will establish guidelines for managing natural, cultural, recreational or facility resources within the Tract. The selection, integrations, and implementation of resource management plans and actions will be based upon ecological, sociological, and economical consequences of the proposed actions on Tract resources. These plans and recommended actions may include protections, mitigation, interpretation, monitoring, and administration of BSBHP resources.

Resource Protection: These uses will support the protection and security of the Tract's resources and its visitors.

Support Infrastructure: The development of necessary infrastructure to support BSBHP operations and activities, such as a visitor center, administration and maintenance facilities, roads, trails, parking areas, utilities, etc.

V. Implementation Actions

A. Short-Term (1-3 years)

- Finalize and adopt a Cultural Resource Management and Interpretive Plan specific to the Rollins Tract.
- Conduct archaeological and environmental baseline surveys to document existing conditions before any construction or disturbance.

- Demolish or remove all non-contributing modern structures per easement conditions.
- Stabilize the gravel driveway and establish controlled access for staff and volunteers.
- Initiate meadow management (controlled mowing, seeding with native grasses such as Little Bluestem, Switchgrass, and Black-eyed Susan).
- Design and install temporary interpretive signage and an information kiosk near the entrance.
- Apply for state/federal grants to support infrastructure and interpretation.
- Establish Interpretive Use Area landscaping in accordance with Department of Parks and Recreation standards.
- Integrate the Rollins Tract into BSBHP's digital interpretation platforms (interactive map, driving tour, social media).
- Launch public programming—annual anniversary tours of Kettle Run and Bristoe Station, school field trips, and living history demonstrations (excluding battle reenactments).
- Develop two self-guided interpretive trails (1862 and 1863 battle trails) with permanent wayside panels, maps, and benches.

B. Mid-Term (3-7 years)

- Construct formal parking lot and visitor orientation area at the Bristow Road entrance.
- Implement landscape restoration: selective tree removal to restore historic viewsheds, limited reestablishment of agricultural fields, and enhancement of hedgerows for wildlife.
- Conduct periodic archaeological testing and monitoring during all ground-disturbing projects.
- Expand volunteer and partner engagement, such as invasive plant control events and meadow seeding days.

C. Long-Term (7-15+ years)

- Pursue landscape restoration projects to further reflect 1860s agricultural field patterns.
- Explore the feasibility of connecting the Rollins Tract to other BSBHP parcels through a safe vehicular driving route and unified orientation signage.
- Investigate acquisition or easements of adjacent parcels for expanded preservation buffer and interpretation.

- Evaluate visitor capacity and sustainability.
- Conduct five- and ten-year interpretive evaluations to ensure educational materials remain accurate and engaging.
- Continue grant-seeking and fundraising for site improvements and long-term maintenance.

NOTE TO TITLE EXAMINERS: This perpetual easement contains restrictions on permitted uses and activities on the property described below, which run with the land and are applicable to the property in perpetuity.

Prepared under the supervision of
The Office of the Attorney General of Virginia

When recorded, please return to:
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, VA 23221

Title Insurance: Stewart Title Guaranty Company

Tax Map Numbers: 7594-77-3726 and 7594-76-0448

Exempted from recordation taxes
under the Code of Virginia (1950), as amended,
§§ 58.1-811(A)(3) and 58.1-811(D)
and from Circuit Court Clerk's Fees under § 17.1-266

DEED OF GIFT OF HISTORIC PRESERVATION AND OPEN-SPACE EASEMENT

**ROLLINS TRACT
Bristoe Station and Manassas Station Operations (Kettle Run) Battlefields
Prince William County**

VDHR EASEMENT FILE NO. 076-0024-007_ep

THIS DEED OF GIFT OF HISTORIC PRESERVATION AND OPEN-SPACE EASEMENT ("Deed of Easement") is made this 26th day of June, 2024, by the **AMERICAN BATTLEFIELD TRUST**, a Virginia non-stock nonprofit corporation, whose address is: 1156 15th Street, N.W., Suite 900, Washington, D.C., 20005 ("Grantor"), and the **COMMONWEALTH OF VIRGINIA, BOARD OF HISTORIC RESOURCES** ("Grantee") (the designations "Grantor" and "Grantee" refer to Grantor and Grantee and their respective successors or assigns).

RECITALS:

R-1 Grantor is the owner in fee simple of real property commonly known as the Rollins Tract, situated in Prince William County, Virginia, containing in the aggregate twenty-two and thirty-five hundredths (22.3593) acres, more or less, located at 10806 and 10810 Bristow Road, Bristow, Virginia 20135, and more particularly described on **Exhibit A** attached hereto (the "**Property**").

R-2 Grantor acquired the Property, in part, with grant funds in the amount of \$527,250.00 awarded through the Battlefield Land Acquisition Grant Program administered by the American Battlefield Protection Program ("**ABPP**") (54 U.S.C. §§ 308101 – 308103 (the "**ABPP Authorization Statutes**")), which, among other things, requires that a perpetual easement be placed on the Property.

Property, by virtue of the grant, is subject to 54 U.S.C. § 200305(f)(3), commonly referred to as “**Section 6(f)(3)**” of the Land and Water Conservation Fund Act (54 U.S.C. §§ 200301 - 200310).

R-3 The Easement was acquired, in part, with grant funds in the amount of \$285,000.00 awarded through the Virginia Land Conservation Foundation (“**VLCF**”) established under Virginia Code § 10.1-1017 *et seq.*, pursuant to the Contractual Agreement for Grant Funding, Project Number VLCF –241(21R2), effective June 30, 2021 through June 30, 2023 (the “**VLCF Grant Agreement**”), a copy of which is maintained in the offices of the VLCF. Such grant amount constitutes twenty-eight and five tenths percent (28.5%) of the appraised value of the Property. The VLCF Grant Agreement requires, among other things, that a perpetual easement be placed on the Property.

R-4 Grantor and Grantee desire to protect in perpetuity the historic battlefield and battlefield landscape and any archaeological, open-space, agricultural, and water quality values of the Property, listed in Section 2.2(a)-(b) and more particularly described in the BDR (defined in Section 2.3) and in **Exhibit B** attached hereto (collectively, the “**Preservation and Conservation Values**”), by restricting the use of the Property pursuant to the terms and conditions of this Deed of Easement, and Grantor desires to grant and convey to Grantee, and Grantee is willing to accept, a perpetual easement over the Property, all as more particularly set forth herein.

R-5 Grantee is entering into this Deed of Easement pursuant to the authority granted under (i) Virginia Code § 10.1-2204(A)(4) and (ii) Virginia Code §§ 10.1-1700, *et seq.* (the “**Open-Space Land Act**”).

R-6 The terms, conditions, and restrictions of this Deed of Easement will be administered and enforced by the Commonwealth of Virginia, Department of Historic Resources (“**VDHR**”) on behalf of Grantee and pursuant to authority granted under Virginia Code § 10.1-2202.

WITNESSETH:

NOW, THEREFORE, in consideration of the mutual covenants herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee hereby agree as follows:

ARTICLE I: EASEMENT AND DESIGNATION

1.1 EASEMENT: Grantor hereby GRANTS and CONVEYS to Grantee a perpetual historic preservation and open-space easement in gross over, and the right **IN PERPETUITY** to restrict the use of, the Property, collectively, all as more particularly set forth in this Deed of Easement (the “**Easement**”). The date upon which this Deed of Easement is recorded in the land records of Prince William County, Virginia shall be the effective date (“**Effective Date**”) hereof.

1.2 DESIGNATION AS OPEN-SPACE: Grantee, by acceptance of this Deed of Easement, hereby designates the Property to be retained and used in perpetuity for the preservation and provision of open-space land pursuant to the Open-Space Land Act.

ARTICLE II: PURPOSE AND CONDITION OF THE PROPERTY

2.1 PURPOSE: In accordance with the Open-Space Land Act and Chapter 22 of Title 10.1 of the Virginia Code, the purpose of the Easement is to preserve and protect the Preservation and Conservation Values of the Property in perpetuity by restricting the development, alteration, and use of the Property and by

providing for the enforcement of those restrictions. Even if the Property consists of more than one parcel for real estate tax or any other purpose or has been acquired previously as separate parcels, the covenants, restrictions, and enforcement rights set forth in this Deed of Easement apply to all parcels as if they were one and bind all successors in interest of the Property in perpetuity.

2.2 EXISTING RESOURCES:

(a) Existing Historic Resources. The following historic buildings, structures, amenities, features, and sites exist on the Property as of the Effective Date (collectively, the “**Existing Historic Resources**”):

1. ± 22.3593 acres of land within the core area of the Bristoe Station Battlefield;
2. ± 22.3593 acres of land within the core area of the Manassas Station Operations (Kettle Run) Battlefield;
3. ± 22.3593 acres of historic battlefield landscape; and
4. One (1) archaeological site representing a historic 19th and 20th century domestic occupation of the Property (“**Known Archaeological Site**”);

(b) Existing Natural Resources. The following natural resources and features exist on the Property as of the Effective Date (collectively, the “**Existing Natural Resources**”):

1. ± 22.3953 acres of open-space land, ± 19.95 acres of which are open-space agricultural land;
2. ±16.0 acres of Prime Farmland as defined by the Natural Resource Conservation Service (“**NRCS**”).
3. ± 424 linear of feet of frontage along an unnamed perennial stream;
4. ± 0.41 acres of freshwater emergent wetlands documented on the National Wetland Inventory (“**NWI**”); and

(c) Existing Non-Historic Resources. The following non-historic buildings, structures, amenities, features, and sites exist on the Property as of the Effective Date (collectively, the “**Existing Non-Historic Resources**”):

1. One (1) frame dwelling, approximately 1,950 square feet (sq. ft.) in footprint;
2. One (1) concrete patio, approximately 525 sq. ft. in footprint;
3. One (1) modular shed, approximately 120 sq. ft. in footprint;
4. One (1) concrete block and frame equipment barn, approximately 4,800 sq. ft. in footprint;
5. One (1) frame and metal dairy barn and associated concrete pad, approximately 9,793 sq. ft. in footprint;
6. One (1) concrete block well house approximately 340 sq. ft. in footprint;
7. One (1) frame turnout shed approximately 425 sq. ft. in footprint;
8. One (1) frame and metal corn crib approximately 800 sq. ft. in footprint;
9. One (1) concrete silo;
10. Four (4) corrugated metal granaries;
11. One (1) well with concrete cap;
12. One (1) residential septic system;
13. Gravel driveway approximately ± 1,780 feet in length;
14. One (1) concrete slab approximately 264 sq. ft. in footprint; and

15. Wire fencing with metal gates.

(d) Existing Resources. For purposes of this Deed of Easement, the Existing Historic Resources, the Existing Natural Resources, and the Existing Non-Historic Resources are collectively defined as the “Existing Resources”.

2.3 CONDITION OF PROPERTY:

(a) Maintenance and Preservation of the Property. From and after the Effective Date the Property shall be maintained, preserved, and protected in the same or better condition and state of repair as documented in the Baseline Documentation Report dated April 24, 2024 (the “BDR”), except for changes or modifications permitted under this Deed of Easement.

(b) Baseline Documentation Report. The BDR contains, among other items, (i) a written report describing the Property (including the Existing Resources), and (ii) aerial, topographic, and photopoint maps, a site plan, and photographs taken by the Easement Stewardship Specialist of VDHR in support of the written report. Grantor hereby acknowledges that it has received a copy and accepts the findings of the BDR. An additional copy of the BDR shall be stored permanently at the VDHR, which is located at 2801 Kensington Avenue, Richmond, Virginia, or such other location as Grantee may determine. The BDR is hereby incorporated by reference into this Deed of Easement and may be used in determining compliance with and enforcing the terms of this Deed of Easement.

2.4 DIVISION:

(a) Tax Parcels. As of the Effective Date, the Property consists of two separate tax parcel(s) (Prince William County Tax Map No(s). 7594-77-3726 and 7594-76-0448 described as follows:

1. Parcel 1, identified as Tax Map No. 7594-77-3726, currently comprising 12.3090 acres, more or less; and
2. Parcel 2, identified as Tax Map No. 7594-76-0448, currently comprising 10.0503 acres, more or less.

(b) No Division. The Property shall not be divided or subdivided. The Property shall not be conveyed in fee other than as a single tract, and any such conveyance shall be subject to the terms, conditions, and restrictions of this Deed of Easement.

(c) Boundary Line Adjustment. Boundary line adjustments involving parcels of land that are (i) adjacent to the Property, and (ii) not subject to this Deed of Easement shall not be permitted unless:

1. The entire adjacent parcel is subject to a recorded perpetual conservation easement held by Grantee or another agency of the Commonwealth of Virginia (the “Commonwealth”) pursuant to the Open-Space Land Act and the Property remains subject to this Deed of Easement after the boundary line adjustment;
2. Grantee reviews and approves in writing, in advance, the proposed boundary line adjustment; and
3. Grantee is made a party to any deed or instrument creating such boundary line adjustment.

4. The entire adjacent parcel is owned by Grantor.

Boundary line adjustments meeting the criteria of this Section 2.4(c) shall not be considered a division of the Property.

**ARTICLE III:
LIMITATIONS ON USES OF AND
CONVEYANCES OF INTERESTS IN THE PROPERTY**

3.1 ACTIVITIES AND USES GENERALLY: From and after the Effective Date, Grantor's activities on and uses of the Property shall be subject to the terms of this Deed of Easement. Any change in the use of the Property or the commencement of any new activity on the Property not being undertaken or maintained on the Property as of the Effective Date is subject to the prior, written approval of Grantee. Without limiting the restrictions set forth in this Deed of Easement, the following activities on and uses of the Property are prohibited:

- (a) Mining on the Property by any method, including without limitation, (i) strip, surface, or subsurface mining (including the extraction or removal of gravel or similar materials, whether or not deemed "minerals" under the laws of the Commonwealth), (ii) dredging on or from the Property, and (iii) drilling for oil, gas, or any natural resource, excluding fresh water for private use;
- (b) Relic hunting of any kind, including without limitation, metal detecting;
- (c) Ground Disturbing Activities (hereinafter defined) that result in damage to or disturbance of (i) cemeteries, buried human remains, funerary markers or monuments, in violation of federal, Commonwealth, or local law, or (ii) archaeological sites, deposits, or features on the Property, whether known or unknown as of the Effective Date;
- (d) Installation and maintenance of billboards, outdoor advertising structures, moving signs or banners, including without limitation, windblown structures, internally illuminated signs, or electronic signs (collectively, "**Billboards**");
- (e) Industrial commercial manufacturing activities, including without limitation, those producing noxious fumes, smoke, dust, excessive noise, or industrial waste, byproducts or co-products as defined by federal, Commonwealth, or local law;
- (f) Industrial farm animal production, including without limitation an "animal feeding operation" as that term is defined in 40 C.F.R. § 122.23(b);
- (g) Non *de minimis* commercial recreational activities, including without limitation, use of the Property as a golf course or as a course for motorized vehicles, including, but not limited, to all-terrain vehicles, motorcross or mudbogging;
- (h) Commercial airstrip, airport, helipad or heliport; or
- (i) Establishment of a commercial wind farm or a commercial solar energy production facility.

3.2 PERMITTED NEW IMPROVEMENTS: No new building, structure, amenity, or feature may be built or maintained on the Property after the Effective Date, other than the buildings, structures, amenities, and features described in this Section 3.2 (collectively, the “Permitted New Improvements”). The following constitute the Permitted New Improvements and are subject to and must comply with the terms, conditions, and restrictions of this Deed of Easement, including without limitation, approvals required under Section 3.3:

- (a) Reconstructions of historic buildings or structures which are documented through professional historical or archaeological investigation to have been located on the Property, which reconstructions shall be consistent with and evaluated according to the *Secretary's Standards* (defined in Section 6.3(b)).
- (b) Permanent roads made of pervious material that are graded, improved, and maintained, including any seasonal unimproved roads and two-track roads (“Roads”).
- (c) One (1) vehicular parking area (“Parking Area”) made of pervious materials not to exceed ± 2,000 sq. ft. in footprint with up to ±400 sq. ft. of impervious pavement for accessibility purposes.
- (d) Improved paths and paved trails constructed from pervious materials or unimproved paths and unpaved trails established by human use (“Trails”).
- (e) Utilities, utility lines, and other infrastructure serving permitted uses on the Property (“Infrastructure”).
- (f) New outbuildings and structures such as a shed, kiosk, or other buildings or structures ancillary to the Property’s use as a battlefield park, provided that the collective footprint for such outbuildings and structures shall not exceed three hundred (300) square feet of the Permitted Collective Footprint (hereinafter defined).
- (g) Small-scale miscellaneous structures, such as fences, gates, boardwalks, and structures for crossing of streams or wetlands.

3.3 ALTERATIONS, NEW CONSTRUCTION, DEMOLITION, AND DESTRUCTION:

(a) Alterations and New Construction. Any work involving the construction, alteration, rehabilitation, restoration, renovation, replacement, extension, demolition, or removal, in whole or in part, of any Existing Resources or Permitted New Improvements is prohibited unless Grantor obtains Grantee’s prior written approval for such work. Without limiting the foregoing, Grantee’s prior, written approval will be required with respect to the location, size, design, footprint, massing, scale, height, and materials, of any such Existing Resources or Permitted New Improvements. Grantor shall comply with all applicable federal, Commonwealth, and local laws and regulations concerning any land or land use, including those applying to any zoning, overlay, design, or historic district in which the Property is located, for any new construction, reconstruction, alteration, restoration, or rehabilitation of Existing Resources and Permitted New Improvements.

(b) Demolition. VDHR has determined that the Existing Non-Historic Resources do not retain integrity or significance as historic resources eligible for listing on the Virginia Landmarks

Register or the National Register of Historic Places. Within three (3) years after the Effective Date, Grantor shall treat the Existing Non-Historic Resources in accordance with the Rehabilitation and Landscape Management Plan dated June 18, 2024 that has been prepared in consultation with, and approved in writing by, Grantee (the “**Management Plan**”). The Management Plan is incorporated into this Deed of Easement by this reference, and a copy of the Management Plan shall be stored permanently at the VDHR or such other location as Grantee may determine. Any residential uses associated with the Existing Non-Historic Resources shall immediately cease upon demolition and removal of the Existing Non-Historic Resources.

(c) **Permitted Collective Footprint.** The ground area measured in square feet covered by Existing Historic Resources and Permitted New Improvements, including without limitation, all roofed decks, porches, stoops, and other attached structures, and all other impervious surfaces, shall not exceed one percent (0.5%), or $\pm$ 4869.5 sq. feet of the total area of the Property (the “**Permitted Collective Footprint**”). The ground area of Roads and Trails will not be included in the calculation of Permitted Collective Footprint.

(d) **Damage and Destruction.**

1. If any Existing Historic Resources are destroyed or damaged by causes beyond Grantor’s reasonable control, including without limitation, by fire, flood, storm, earth movement, or other acts of God, to such extent that in the opinion of Grantee, applying the *Secretary’s Standards* and the *National Register Criteria for Evaluation* (36 C.F.R. Parts 60.3 and 60.4, as amended; *see also* 36 C.F.R. Part 63, as amended), such Existing Historic Resources would no longer qualify for listing on the Virginia Landmarks Register or the National Register of Historic Places, Grantor shall have no obligation under this Deed of Easement to rehabilitate or reconstruct such Existing Historic Resources or return them to their condition as existed on the Effective Date or as thereafter altered or changed in accordance with this Deed of Easement.
2. If any Existing Historic Resources are damaged, but, in the opinion of Grantee, applying the *Secretary’s Standards*, the *National Register Criteria for Evaluation*, and the *Virginia Rehabilitation Code* (Part II of the *Virginia Uniform Statewide Building Code* (2011, as amended), such Existing Historic Resources are capable of being rehabilitated and retain sufficient integrity to continue to qualify for listing in the Virginia Landmarks Register or the National Register of Historic Places, Grantor shall rehabilitate or reconstruct such Existing Historic Resources to their condition as existed on the Effective Date or as thereafter altered or changed in accordance with this Deed of Easement. Any such rehabilitation or reconstruction shall be undertaken in accordance with the provisions of this Deed of Easement and the *Secretary’s Standards*.
3. Notwithstanding the foregoing, in the event that any Existing Non-Historic Resource or Permitted New Improvement is destroyed or damaged by causes beyond Grantor’s reasonable control, including without limitation, by fire, flood, storm, earth movement, or other acts of God, Grantor shall have no obligation under this Deed of Easement to rehabilitate or reconstruct such building, structure, amenity, or feature.

4. For any Grantor that is a local government or an agency of a local government, if such Grantor's governing body fails to appropriate funds to satisfy Grantor's maintenance obligation under this Easement, such Grantor shall continue to take all reasonable actions to maintain and prevent the deterioration or destruction of the Existing Historic Resources identified in Section 2.2(a), but such Grantor shall not be obligated to expend funds beyond those that are then currently appropriated or allocated.
5. If Grantor must take emergency actions to prevent irreversible damage to the Property or Preservation and Conservation Values or to ensure human health or safety, then Grantor shall (i) notify Grantee within fourteen (14) days of such action and (ii) provide a written explanation of the reason for such emergency actions and any mitigation measures undertaken.

(e) Right to Erect Certain Markers or Signs. Grantor may erect signs or markers for interpretation of the Property as a historic resource, and for informational, wayfinding, and visitor safety purposes. Such signs can be no greater than two (2) feet by three (3) feet without the prior, written approval of Grantee, and no more than four (4) interpretive signs or markers may be located on the Property at any given time. Grantor must obtain prior, written approval from Grantee for any sign or marker exceeding two (2) feet by three (3) feet or when the total number of signs or markers on the Property at any given time exceeds a quantity of four (4). Grantee, in its discretion, and upon reasonable notice to Grantor, may erect at a location mutually acceptable to Grantor and Grantee, a single marker or sign, not exceeding two (2) feet by two (2) feet, which states the name of Grantee and advises that Grantee is the holder of the Easement. Grantor may construct, install, and maintain one (1) sign not to exceed three (3) feet by three (3) feet to provide notice the Property was acquired, in part, with federal grant funds awarded through the ABPP, and administered by the National Park Service, provided that Grantor obtains Grantee's prior written approval for the location of such sign. Any markers or signs erected pursuant to this Section 3.3(e) will not be counted toward the Permitted Collective Footprint.

3.4 TEMPORARY STRUCTURES:

(a) Temporary Structures. Temporary structures not requiring trenching, footers, a pad, or other Ground Disturbing Activities (defined in Section 3.5) and erected for no more than sixteen (16) consecutive calendar days for use by Grantor or Grantor's designees, not to exceed a maximum of one-hundred sixty (160) days per calendar year may be placed on the Property. Any extension of the sixteen (16) day duration must be reviewed and approved in advance in writing by Grantee. Temporary agricultural structures may be constructed, erected, or maintained if such duration does not exceed one hundred sixty (160) consecutive calendar days or one hundred eighty (180) days total within a calendar year.

(b) Temporary Signs. Temporary signs not requiring any Ground Disturbing Activities that may be readily moved and are displayed for no more than sixteen (16) consecutive calendar days for use by Grantor or Grantor's designees may be placed on the Property. Any extension of the sixteen (16) day duration must be reviewed and approved in advance in writing by Grantee.

3.5 GROUND DISTURBING ACTIVITIES: Any and all grading, topographic changes, blasting, earth removal, and any other ground disturbing activities on the Property (each a "Ground Disturbing Activity," and collectively, "Ground Disturbing Activities") are subject to Grantee's prior, written approval and compliance with ARTICLE IV of this Deed of Easement. Ground Disturbing Activities include, without limitation, those activities incidental to (i) rehabilitation of the historic battlefield landscape; (ii) installation and construction of Permitted New Improvements; or (iii) forest or timber management activities with the exception of those activities listed in Section 5.1. All Ground Disturbing Activities shall

be conducted in accordance with all applicable federal, Commonwealth, and local laws and regulations.

3.6 TRASH: The accumulation or dumping of (a) trash, refuse, junk, or other unsightly material, or (b) any toxic or hazardous material or substance as defined by federal or Commonwealth law is prohibited on the Property. Grantor shall be responsible for the removal of trash, refuse, junk, and other unsightly materials present on the Property as of the Effective Date or at any point thereafter, in compliance with applicable laws and regulations. The provisions of this Section 3.6 do not prevent Grantor from (i) creating brush piles, (ii) composting, or (iii) storing farm machinery, organic matter, agricultural products, or agricultural by-products, so long as these practices are conducted in accordance with applicable federal, Commonwealth, and local laws and regulations. Grantor may burn brush piles and other organic matter if Grantor obtains the prior, written approval of Grantee as to the proposed location and size of the burn pile and if such burning is conducted in accordance with all applicable federal, Commonwealth, and local laws.

3.7 PUBLIC ACCESS:

(a) Public Access. Grantor shall make the Property accessible to the public three hundred sixty-five (365) days per calendar year. This requirement may be fulfilled through a tour, open house, or similar event that is open to the general public. Grantor may have a representative present during such public access, and access may be subject to reasonable restrictions to ensure security of the Property and safety of the visitors.

(b) No Obstruction of View. The Property is visible from Bristow Road (State Road 619), a public right-of-way, and members of the general public may view the Property from said right-of-way. Nothing permanent shall be constructed, erected, maintained, or allowed to grow above four (4) feet measured from ground level that would obstruct the views of the Property, from Bristow Road, except as exists as of the Effective Date and as documented in the BDR. Plants, including seasonal crops, that will obstruct views of the Property from Bristow Road may be maintained or allowed to grow above four (4) feet measured from ground level provided such duration does not exceed one hundred sixty (160) consecutive calendar days or one hundred eighty (180) days total within any calendar year.

(c) No Public Use. Nothing in this Easement should be construed as dedicating the Property for public use.

3.8 CONVEYANCE OF INTEREST IN REAL PROPERTY: Grantor shall notify Grantee in writing within no less than forty-five (45) calendar days prior to any transfer of fee simple title of the Property. All conveyances by Grantor of any interest in the Property less than fee simple, excluding deeds of trust given for the purpose of securing loans, requires the prior, written approval of Grantee. After the Effective Date, this Deed of Easement shall be referenced by deed book and page number, instrument number, or other appropriate reference in any deed conveying an interest in the Property, but failure of Grantor to comply with this requirement will not impair the validity of the Easement or the conveyance or limit the enforceability of this Deed of Easement in any way.

ARTICLE IV: ARCHAEOLOGICAL RESOURCES

4.1 ARCHAEOLOGICAL SURVEY AND INVESTIGATION: For purposes of this Deed of Easement, "Archaeological Survey and Investigation" includes without limitation, pedestrian survey, shovel testing and test unit excavation, and the use of remote sensing techniques for the purposes of protecting, preserving, and documenting archaeologically significant deposits, sites, and features in the area of proposed Ground Disturbing Activities. Archaeological Survey and Investigation by a professional archaeologist may be required if, in the sole opinion of Grantee, a Ground Disturbing Activity may impact (a)

the historic battlefield and battlefield landscape; (b) the Known Archaeological Site; or (c) archaeologically significant deposits, sites, or features on the Property, whether known or unknown as of the Effective Date. Archaeological Survey and Investigation may be undertaken on the Property only if a scope of work for such survey or investigation is reviewed and approved in writing in advance by Grantee and only if the Archaeological Survey and Investigation is performed in accordance with VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (2017 and as amended) and the *Secretary's Standards* and under the supervision of a professionally qualified archaeologist meeting or exceeding the *Secretary of the Interior's Professional Qualifications Standards*. All Archaeological Survey and Investigation must be completed prior to the commencement of the proposed Ground Disturbing Activity. Grantor shall be responsible for all costs and expenses associated with any Archaeological Survey and Investigation.

4.2 TREATMENT OF ARTIFACTS: Artifacts, both prehistoric and historic, recovered from Archaeological Survey and Investigation of the Property pursuant to Section 4.1 ("**Artifacts**") shall remain the personal property of Grantor, unless otherwise provided by law. Prior to Grantor's donation of Artifacts to an organization or institution other than VDHR for curation, Grantor shall provide Grantee with written notice of such donation, which written notice shall include: (a) the name of the organization or institution, (b) the location where the Artifacts will be stored, treated, curated, and preserved, and (c) an affirmation that the Artifacts will be treated consistent with the *Virginia Department of Historic Resources State Collection Management Standards* (as amended or superseded) and the *Secretary's Standards*.

4.3 TREATMENT OF HUMAN REMAINS: If human remains are identified during Archaeological Survey and Investigation of the Property pursuant to Section 4.1 or during any other Ground Disturbing Activity, then Grantor shall immediately cease all activities at the specific location(s) where human remains have been found and notify Grantee. Grantor shall comply with all laws applicable to the discovery of human remains, including without limitation, notifying local law enforcement and obtaining any necessary permits or authorizations for treatment of the human remains. Grantor shall be responsible for all costs and expenses associated with the treatment and removal of the human remains.

4.4 TREATMENT OF ARCHAEOLOGICAL RESOURCES: Grantor's treatment of all archaeological resources, including Artifacts and human remains, discovered during Archaeological Survey and Investigation of the Property pursuant to Section 4.1 shall be consistent with the *Guidelines for Conducting Historic Resources Survey in Virginia*, *Virginia Department of Historic Resources State Collection Management Standards* (as amended or superseded) and the *Secretary's Standards*. Grantor shall take reasonable precautions to protect Artifacts, human remains, archaeological deposits, sites, and features on the Property, whether known or unknown as of the Effective Date, from vandalism, erosion, mutilation, or destruction from any cause. Grantor shall notify Grantee as soon as practicable, but in no event later than thirty (30) calendar days following discovery or knowledge of any vandalism, erosion, mutilation, or destruction of Artifacts, human remains, archaeological deposits, sites, or features on the Property.

ARTICLE V: LANDSCAPE

5.1 TREES AND VEGETATION: Trees and vegetation on the Property shall be managed in accordance with established arboreal and horticultural practices and in a manner that will prevent damage to Existing Resources and Permitted New Improvements consistent with the Preservation and Conservation Values. Grantor reserves the right to manage forested land by selective *de minimis* cutting, pruning, and planting for non-commercial purposes, which may include forest management for: (a) the collection of firewood for Grantor's personal use; (b) prevention or removal of individual dead, diseased, or dying trees or invasive plant species; (c) control of active fire and prevention of fire and disease; (d) household gardening and landscaping; (e) construction of Permitted New Improvements; (f) removal of trees that impose an imminent hazard to (i) human health or safety, or (ii) Existing Resources, Permitted New Improvements, livestock, or other domesticated animals maintained on the Property. For purposes of this Deed of Easement,

“invasive plant species” means those species listed on the *Commonwealth of Virginia, Department of Conservation and Recreation’s Invasive Alien Plant Species of Virginia List* (as amended or superseded).

5.2 LANDSCAPE ALTERATION: As of the Effective Date, the Property contains approximately 22.35 acres of open-space land with $\pm$ 19.95 acres of agricultural fields in crop production, 0.41 acres of wetlands, and $\pm$ 0.77 acres of forested cover as documented in the BDR. An additional $\pm$ 2 acres consists of open space lawn surrounding the agricultural complex. Grantor shall not convert such fields, wetlands, or forested cover to any other use or cover without the prior, written approval of Grantee.

5.3 RIPARIAN PROTECTION ZONE:

(a) To protect water quality and natural habitat, a vegetated riparian protection zone (the “RPZ”) shall be maintained on the Property as shown on Exhibit C, attached hereto and made a part hereof, and as shown in the BDR.

(b) As shown on Exhibit C, the RPZ is made up of (i) a vegetated thirty-five (35) foot riparian buffer extending landward from both edges of the unnamed perennial stream on the Property; and

(c) Within the RPZ there shall be:

1. No construction of new buildings or structures or reconstructions of historic buildings or structures; however, buildings, structures, other improvements, or roads existing prior to the Effective Date of this Easement may be maintained but not enlarged within the RPZ;
2. No new roads or impervious surfaces;
3. No storage of compost, manure, fertilizers, chemicals, machinery or equipment;
4. No removal of trees except removal of invasive species or removal of dead, diseased or dying trees, or trees posing a threat to human or livestock health or safety; and
5. No dumping, plowing, cultivation, filling, or other earth-disturbing activity, except as may be reasonably necessary for the activities permitted consistent with this Section 5.4 and pursuant to Section 3.5.
6. No livestock.

(d) Notwithstanding the foregoing, the following activities are permitted within the RPZ, subject to any applicable federal, state or local laws and regulations:

1. Erosion control or restoration, enhancement, or development of ecosystem functions on the Property subject to Article IV: Archaeological Resources and Section 3.5.
2. Repair, replacement or installation of fencing along or within the RPZ.
3. Construction and maintenance of two (2) stream crossings (including improvements over the buffer strip to access crossings for pedestrians, which crossing shall minimize obstruction of water flow and follow design standards promulgated by the Natural Resources Conservation Service (NRCS, Conservation Practice Standard: Stream Crossings, Code 578, as amended or superseded) subject to Article IV: Archaeological Resources and Section 3.5.
4. Removal of invasive species or dead, diseased or dying trees.

5. Minimal removal of individual trees or trees posing an imminent hazard to livestock or other domesticated animals maintained on the Property or to human health or safety.
6. Planting of trees, shrubs, grasses, or other vegetation.
7. Professional archaeological investigation or survey in accordance with Article IV: Archaeological Resources.
8. Construction and maintenance of Trails pursuant to Section 3.2(d).
9. Mowing up to three (3) times per year.

(e) Should the perennial streams meander or change course naturally, the RPZ shall remain the same width, but move relative to the movement of perennial stream. In such event, any buildings or structures that were outside of the RPZ as of the Effective Date and are determined to be within the new RPZ shall not be considered in violation of these restrictions and may be maintained at such locations.

5.4 WETLAND AREAS:

(a) Prior to undertaking any activity within any area on the Property determined to be a wetland area by the Department of the Army or another governmental body with jurisdiction over wetland areas, Grantor shall (1) certify to Grantee that such activity is in compliance with all applicable federal, state, and local laws and regulations and (2) provide Grantee with copies of all permits, licenses, approvals, or other similar documentation required to conduct such activity.

(b) Grantor's compliance with this Section 5.5 does not relieve Grantor of the obligation to obtain Grantee's approval for activities requiring Grantee's approval under this Easement.

5.5 AGRICULTURAL RESOURCE MANAGEMENT: Whenever agricultural activities are conducted upon the Property, such activities shall be conducted in accordance with a written agricultural conservation plan that stipulates the use of appropriate Best Management Practices and is developed in consultation with the local Soil and Water Conservation District or Natural Resources Conservation Service. This plan shall be implemented and periodically updated by the landowner as long as agricultural activities are conducted on the Property. Grantee reserves the right to require changes to the agricultural conservation plan as necessary to protect and preserve the Preservation and Conservation Values.

5.6 FOREST MANAGEMENT: Notwithstanding the provisions of Section 5.1, if the Property contains 20 acres or more of forest lands, then a current written forest management plan or Virginia Forest Stewardship Plan, and a Pre-Harvest Plan shall be in place prior to the commencement of timber harvesting or other significant forest management activities. Such a plan shall be developed by, or in consultation with, the Virginia Department of Forestry, or be consistent with Virginia's Forestry Best Management Practices for Water Quality Guide. Grantor shall not engage in any forest management activities, including without limitation, planting, harvesting, or removal of trees, without the prior, written approval of Grantee.

ARTICLE VI: INSPECTION, APPROVALS, AND ENFORCEMENT

6.1 INSPECTION:

(a) Right of Entry. Grantee, and its representatives and agents, have the right to enter onto the Property once per calendar year, upon not less than ten (10) days' notice to Grantor, to inspect and document the condition of the Property. Grantee and its representatives and agents, otherwise have the right to enter onto the Property, upon reasonable notice to Grantor, to inspect the Property and to enforce the terms,

conditions, and restrictions of this Deed of Easement. Grantor's consent is not a necessary condition to the right of entry by Grantee and its representatives and agents; however, the parties agree to cooperate in determining a mutually agreeable time to access the Property. Grantee may take photographs, drawings, or other representations documenting the historical, archaeological, and cultural character and features of the Property and may use or publish them.

(b) Emergency Access. No notice to or consent of Grantor is required if, in the reasonable opinion of Grantee, emergency access is necessary to prevent irreversible damage to the Preservation and Conservation Values. Following such emergency access, Grantee shall provide Grantor with a written explanation of the reason for such emergency access and the actions taken by Grantee on the Property during such emergency access. Grantee shall limit its actions during such emergency access to those necessary to prevent irreversible damage to the Preservation and Conservation Values.

6.2 APPROVALS: Whenever Grantee's approval is necessary under this Deed of Easement for a proposed use or activity, including without limitation, any construction work on the Property, Grantor shall submit in writing to Grantee, for Grantee's evaluation: (i) Grantor's specific request identifying a proposed activity or use; (ii) relevant information about the proposed activity or use (including without limitation, photographs, plans, specifications, and designs, as applicable); (iii) a timetable for the proposed activity or use sufficient to permit Grantee to monitor it, and (iv) such other information as Grantee may reasonably request. Grantor shall not make any changes to the proposed activity or use, including without limitation, any scope of work, without Grantee's written authorization. Grantee will use reasonable efforts to respond to any written request of Grantor within thirty (30) business days after Grantee's receipt of such request. Nothing herein should be construed, however, to require Grantee to issue a final decision on such request within such thirty (30) business day period, provided that a final decision is issued as timely as is practicable under the circumstances. Such circumstances may include, but are not limited to, the complexity of the activity or use, the adequacy of the information submitted with the written request, the degree to which the activity or use complies with the terms of the Deed of Easement, whether the activity or use is consistent with the *Secretary's Standards*, the need for Archaeological Survey and Investigation, the need for on-site inspections, or the need for consultation. In the event that Grantee does not respond in writing to Grantor's written request within thirty (30) business days of receipt of such request, then Grantee will be deemed to have denied the request, and Grantor may proceed with any appeal for reconsideration of such request in accordance with Grantee's written policies. Grantee is not liable to Grantor or any third party for any damage, injury, liability, or consequence arising out of or resulting from Grantor's failure to obtain Grantee's prior, written approval as required under this Deed of Easement. Nothing herein shall be construed to affect the authority of the Secretary of the Interior under Section 6(f)(3).

6.3 STANDARDS FOR REVIEW:

(a) Sole Determination by Grantee. Any determination made by Grantee in exercising its rights of inspection, approval, or review under this Deed of Easement is made in Grantee's sole discretion, and Grantee, in making such a determination, may consider, without limitation, whether the activity or use (i) is consistent with this historic character of the Property; (ii) is consistent or compatible with the Preservation and Conservation Values; (iii) complies with the terms of this Deed of Easement; or (iv) complies with the *Secretary's Standards*.

(b) Secretary's Standards. The following standards promulgated by the Secretary of the Interior are collectively referred to in this Deed of Easement as the "*Secretary's Standards*":

1. *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (48 Fed. Reg. 44,716, 44,716 – 44,740 (Sept. 29, 1983), as amended).

2. *Secretary of the Interior's Professional Qualifications Standards* (48 Fed. Reg. 44,716, 44,738 – 44,739 (Sept. 29, 1983, as amended)).
3. *Secretary of the Interior's Standards for Rehabilitation* (36 C.F.R. § 67.7 (2017), as amended).
4. *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 C.F.R. Part 68 (2017), as amended).
5. *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (National Park Service, 2017, as amended).
6. *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (National Park Service, 1995, as amended).

6.4 EASEMENT REVIEW FEES: Grantee reserves the right to assess and collect fees relating to requests initiated by Grantor involving matters such as boundary line adjustments, amendments to this Deed of Easement or the BDR, project reviews, preparation of reports to facilitate sales, review of access or utility easements over the Property, and infrastructure projects affecting the Property. Such fees shall be determined and periodically adjusted by Grantee, as set forth in a published fee schedule.

6.5 ENFORCEMENT:

(a) Grantee's Enforcement Rights. Grantee has the right to bring an action at law or in equity to enforce the covenants and restrictions contained in this Deed of Easement, including without limitation, the right to: (i) require restoration of the Property to comply with the terms of this Deed of Easement; (ii) recover any damages arising from non-compliance, including but not limited to disgorgement of any monies received by Grantor connected with such non-compliance; (iii) enjoin non-compliance by *ex parte* temporary or permanent injunction; and (iv) pursue any other appropriate remedy in law or equity.

(b) Reimbursement of Costs. If a court determines that Grantor has failed to comply with this Deed of Easement, Grantor shall reimburse Grantee for all reasonable costs of enforcement, including costs of restoration, court costs, expert-witness costs, and reasonable attorneys' fees, in addition to any other payments ordered by such court.

(c) No Rights in Public. Nothing in this Deed of Easement shall create any right in the public or any third party to maintain any judicial proceeding against Grantor or Grantee or to enforce this Deed of Easement through any means including, but not limited to, judicial action.

ARTICLE VII: GENERAL PROVISIONS

7.1 GRANTOR'S RESERVED RIGHTS: Grantor reserves the right to use and enjoy the Property to the extent consistent with the Preservation and Conservation Values and the terms and conditions of the Deed of Easement.

7.2 GRANTEE'S PROPERTY INTEREST: Grantor agrees that the conveyance of this

Easement gives rise to a property interest, immediately vested in Grantee, with a fair market value that is at least equal to the proportionate value that the perpetual conservation restriction at the time of the conveyance bears to the fair market value of the Property as a whole at that time.

7.3 INSURANCE:

(a) For any Grantor that is a local government or an agency of a local government, Grantor shall provide a statement of coverage of Grantor's funded program of self-insurance for the Property including the following minimum limits and coverage:

1. One million dollars (\$1,000,000.00) for personal injury to or death of any one person, or more than one person, as the result of any one accident or disaster and coverage for property damage and medical payments.

(b) For any Grantor that is a private individual or entity, Grantor shall keep the Property insured by an insurance company licensed to issue policies in the Commonwealth of Virginia and rated "Secure" by A.M. Best Company or other qualified insurance rating company for comprehensive general liability insurance against claims for personal injury, death, and property damage. The Commonwealth, Grantee, and VDHR shall be named as additional insured parties in such policy.

7.4 CONVERSION OR DIVERSION: No part of the Property may be converted or diverted from historic preservation or open-space uses except (a) in accordance with the Open-Space Land Act, which does not permit loss of open-space land; and (b) with the written approval of the Secretary of the Interior acting through the ABPP in accordance with the requirements of Section 6(f)(3) and the ABPP Authorization Statutes. There is no remedy in the event of a breach of Section 6(f)(3) other than immediate compliance with Section 6(f)(3), nor can grant funds be repaid to nullify the requirements of Section 6(f)(3). To the extent that any monetary consideration is received by Grantor as a result of the diversion or conversion of the Property in accordance with the requirements in this Section 7.4, Grantor agrees that the VLCF shall be paid a percentage of such consideration equaling twenty-eight and five tenths percent (28.5%) thereof, being net of applicable costs.

7.5 EXTINGUISHMENT: Should an attempt be made to extinguish this Easement, such extinguishment can be carried out only by judicial proceedings and only if in compliance with the Open-Space Land Act and Section 6(f)(3). In any sale, exchange, or involuntary conversion of the Property or portion of the Property subsequent to such extinguishment, Grantee shall be entitled to a portion of the proceeds at least equal to the proportionate value of the perpetual conservation restriction computed as set forth in Section 7.2. Grantee shall use the proceeds from the sale of the Property in a manner consistent with the conservation purposes of this Deed of Easement, Virginia Code §§ 10.1-2200 *et seq.*, the Open-Space Land Act, and the requirements of Section 6(f)(3). Additionally, the parties hereto agree that the VLCF shall receive reimbursement in the amount of twenty-eight and five tenths percent (28.5%) (net after applicable costs) of total proceeds payable resulting from said transaction.

7.6 SEVERABILITY: The invalidity or unenforceability of any provision of this Deed of Easement shall not affect the validity or enforceability of any other provision of this Deed of Easement.

7.7 AMENDMENT: Grantee and Grantor may amend this Deed of Easement to enhance the Property's Preservation and Conservation Values or to increase the amount of real property subject to this Easement. No amendment to this Deed of Easement shall:

- (a) affect this Easement's perpetual duration;
- (b) conflict with or be contrary to or inconsistent with the purpose of this Easement as set forth in Section 2.1;

- (c) reduce the protections to the Preservation and Conservation Values;
- (d) affect the qualification of this Easement as an "open-space easement"; or
- (e) affect the status of Grantee as a "public body".

No amendment shall be effective unless documented in a notarized writing executed by Grantee and Grantor and recorded in the Clerk's Office of the Circuit Court of Prince William County, Virginia. Where feasible, Grantee will notify ABPP in writing of any proposed amendment at least thirty (30) business days prior to the recordation of any such amendment.

7.8 DURATION; SUCCESSORS IN INTEREST: This Easement is perpetual. It is an easement in gross that runs with the land as an incorporeal interest in the Property. The covenants, terms, conditions, and restrictions contained in this Deed of Easement are binding upon, and inure to the benefit of, the parties hereto and their successors and assigns, and shall continue as a servitude running in perpetuity with the Property. The rights and obligations contained in this Deed of Easement of an owner of the Property, or any portion thereof, terminate upon proper transfer of such owner's interest in the Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

7.9 GRANTOR'S REPRESENTATIONS AND WARRANTIES: Grantor hereby represents, covenants, and warrants that: (a) Grantor has good, fee simple title to the Property; (b) the Property is free and clear of all encumbrances, other than restrictions, covenants, conditions, and utility and access easements recorded in the land records of Prince William County, Virginia, prior to the Effective Date including, but not limited to, any mortgages, liens, leases, or option contracts not subordinated to this Deed of Easement; (c) Grantor has all requisite power and authority to enter into this Deed of Easement and to grant and convey the Easement; (d) no consents of any lender or any third party are required for Grantor to enter into this Deed of Easement that have not already been obtained and made known to Grantee; (e) Grantor is and shall be duly organized and legally existing under the laws of the state of its formation and duly qualified to transact business in the Commonwealth; and (f) each person and/or entity signing on behalf of Grantor is authorized to do so.

7.10 ASSIGNMENT: Assignment of this Deed of Easement is permitted by Virginia Code § 10.1-1704(B), and Grantee may assign this Deed of Easement, in its discretion, after consultation with Grantor if:

- (a) The assignment, transfer or conveyance is consistent with the Open-Space Land Act; and
- (b) All restrictions and covenants and preservation and conservation purposes set forth in this Easement are to be continued in perpetuity.

Such assignment shall be in writing with all signatures notarized and shall be recorded in the Clerk's Office of the Circuit Court of Prince William County, Virginia. Where feasible, Grantee will notify ABPP in writing of any proposed assignment at least thirty (30) business days prior to the recordation of any such assignment.

7.11 NO MERGER: Grantor and Grantee agree that in the event that Grantee, or any agency or entity of the Commonwealth, acquires a fee interest in the Property, this Easement shall not merge into the fee interest, but shall survive the deed and continue to encumber the Property.

7.12 JOINT OWNERSHIP: If Grantor at any time owns the Property, any portion of the Property, or any interest therein in joint tenancy, tenancy by the entireties, or tenancy in common, all such tenants shall be jointly and severally liable for all obligations of Grantor set forth herein.

7.13 CONTROLLING LAW; INTERACTION WITH OTHER LAWS:

(a) Controlling Law. This Deed of Easement shall be construed according to the laws of the Commonwealth, and any legal action with respect to this Deed of Easement shall be instituted and maintained only in state courts of the Commonwealth sitting in the City of Richmond. Any general rule of construction notwithstanding, Grantor and Grantee agree that this Easement will be liberally construed in favor of the conveyance to Grantee to protect the Preservation and Conservation Values and to effect the purposes of this Deed of Easement.

(b) Interaction with Other Laws. This Easement does not permit any use of the Property that is otherwise prohibited by federal, Commonwealth, or local law or regulation. Compliance with this Deed of Easement in no way obviates, negates, supersedes, waives, or satisfies applicable federal, Commonwealth, or local laws or regulations. In the event of any conflict between applicable federal, Commonwealth, or local laws or regulations and the provisions of this Deed of Easement, the standard which more effectively protects and promotes the Preservation and Conservation Values will prevail.

7.14 RECODIFICATION AND AMENDMENT OF STATUTES AND REGULATIONS:

In the event that any of the statutes or regulations cited in this Deed of Easement are re-codified or amended, this Deed of Easement will be interpreted and enforced according to the re-codified or amended statutes and regulations most closely corresponding to those cited herein and carrying out the purposes recited herein.

7.15 CONSTRUCTION: Pursuant to the public policy of the Commonwealth favoring land conservation, any general rule of construction to the contrary notwithstanding (including the common-law rule that covenants restricting the free use of land are disfavored and must be strictly construed), it is the intent of Grantor and Grantee that this Deed of Easement and all language contained herein shall be liberally construed in favor of the grant to effect the purposes of the Easement and the policies and purposes of Grantee. If any provision of this Deed of Easement is found to be ambiguous, an interpretation that is consistent with the purposes of this Easement (to protect the Preservation and Conservation Values and prevent the exercise of reserved rights in a way that would impair such values) and that would render the provision valid will be favored over any interpretation that would render it invalid. Notwithstanding the foregoing, lawful acts or uses consistent with the purposes of and not expressly prohibited by this Deed of Easement are permitted on the Property.

7.16 STATUS OF GRANTEE AS AN INSTRUMENTALITY OF THE COMMONWEALTH: With respect to tort liability for acts or occurrences on or about the Property, the Commonwealth and Grantee and VDHR, as instrumentalities of the Commonwealth, are either: (i) constitutionally immune (or partially immune) from suit, judgment or liability; (ii) insured; or (iii) covered by a financial plan of risk management that is in the nature of self-insurance, all as determined by applicable laws, government policies, and practices. Grantor acknowledges that neither Grantee, nor VDHR have agreed to provide any indemnification or save harmless agreements running to Grantor. No provision, covenant, or agreement contained in this Deed of Easement is deemed, in any manner, to be a waiver of the sovereign immunity of the Commonwealth, Grantee, VDHR, or – to the extent provided for by Virginia law – any Grantor that is a local government from tort or other liability from tort or other liability.

7.17 EXTINGUISHMENT OF DEVELOPMENT RIGHTS: Any and all development rights, subdivision rights and other rights affecting the future development (collectively, the “Development Rights”) of the Property, are hereby extinguished and terminated in perpetuity. Grantor unconditionally and irrevocably relinquishes the right to transfer the Development Rights to any other real

property or to use them for purposes of calculating lot yield, density allowances, increases or decreases, and/or development potential of the Property or any other property. Grantor warrants and covenants that neither the Property, nor any portion of it, has been or will be dedicated as open-space within, or as part of, a residential subdivision or any other type of real estate development plan or dedicated for the purpose of fulfilling density requirements to obtain approvals for zoning, subdivision, site plan, or building permits. No Development Rights that have been encumbered or extinguished by this Deed of Easement will be transferred to any other real property pursuant to a transfer of Development Rights or purchase of Development Rights program, cluster development plan, planned unit development, or other type of land use program or regulation intended to restrict the future development of the Property.

7.18 ENVIRONMENTAL LIABILITY: Grantee is in no way liable for any condition existing in, on, or about the Property, whether known or unknown, as of the Effective Date under the Clean Water Act (33 U.S.C. §§ 1251, *et seq.*), the Clean Air Act (42 U.S.C. §§ 7401, *et seq.*), the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901, *et seq.*), the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. §§ 9601, *et seq.*), or any comparable Commonwealth or local law concerning the storage, disposal, remediation, or release of any toxic or hazardous waste, material, or substance. Grantor agrees to indemnify and hold Grantee harmless from any and all claims, suits, judgments, damages, fines, penalties, liability, costs, and expenses (including costs and expenses for any required abatement, environmental clean-up or remediation, or reasonable fees for costs and expenses for any required attorneys, consultants, or experts) resulting or arising from any toxic or hazardous waste, material, or substance located in, on, or about the Property as of the Effective Date or from the use, generation, storage, release, or disposal of any toxic or hazardous waste, material, or substance in, on, or about the Property from and after the Effective Date.

7.19 TAX MATTERS: Grantee makes no express or implied warranties that any tax benefits will be available to Grantor from the donation of this Easement, or that any such tax benefits might be transferable, or that there will be any market for any tax benefits that might be transferable. By its execution hereof, Grantee acknowledges and confirms receipt of the Easement and further acknowledges that Grantee has not provided any goods or services to Grantor in consideration of the grant of the Easement.

7.20 RECORDING: This Deed of Easement shall be recorded in the land records in the Clerk's Office of the Circuit Court of Prince William County, Virginia, and Grantee may re-record it at any time to preserve its rights under this Easement.

7.21 COUNTERPARTS: This Deed of Easement may be executed in one or more counterparts, each of which, when executed and delivered shall be an original, but all of which shall constitute one and the same Deed of Easement. Execution of this Deed of Easement at different times and in different places by the parties hereto shall not affect the validity of the Easement.

7.22 NOTICE: All notices and communications under this Easement shall be directed as follows:

Grantor:
American Battlefield Trust
1156 15th Street, N.W., Suite 900
Washington, D.C., 20005

or

At the address reflected in the tax records maintained by the County of Prince William, Virginia, for the Property.

Grantee:

Easement Program
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

ABPP:

National Park Service
American Battlefield Protection Program
1849 C Street, NW, Room 7228
Washington, D.C. 20240

Virginia Land Conservation Foundation:

Virginia Department of Conservation and Recreation
c/o Land Conservation Manager
600 East Main Street, 24th Floor
Richmond, Virginia 23219

7.23 ENTIRE AGREEMENT: This instrument, the exhibits attached hereto, and the documents incorporated herein by reference set forth the entire agreement of the parties hereto with respect to this Deed of Easement and supersede all prior discussions, negotiations, understandings, documents, drafts, and agreements relating to the conveyance of this Easement.

7.24 PRESUMPTIONS; INDEPENDENT LEGAL COUNSEL: This Deed of Easement shall be construed without regard to any presumption or other rule requiring construction against the party causing the Deed of Easement to be drafted. No presumption shall be created in favor of or against Grantee with respect to the interpretation of any term or provision hereof due to the fact that this Deed of Easement may have been prepared by Grantee or by the Office of the Attorney General of the Commonwealth. Grantor acknowledges and understands that the Office of the Attorney General of the Commonwealth, in preparing this Deed of Easement, solely represents Grantee. Grantor represents that Grantor has had a chance to review this Deed of Easement and has had an opportunity to engage and consult separate independent legal counsel of Grantor's own choice concerning the legal and other effects of the provisions of this Deed of Easement, the rights and interests waived and granted hereunder, and all other matters pertaining hereto.

7.25 RECITALS AND EXHIBITS: All recitals set forth above and exhibits attached hereto are hereby incorporated into and made a part of this Deed of Easement.

7.26 HEADINGS; DEFINITIONS: The headings and titles to the articles, sections, and subsections of this Deed of Easement are for convenience only and have no effect upon the construction or interpretation of any part of this Deed of Easement. For the purposes of this Deed of Easement, all references to the "Virginia Code" mean the Code of Virginia 1950, as amended.

Witness the following signatures and seal:

[COUNTERPART SIGNATURE PAGES TO FOLLOW]

{Remainder of page intentionally left blank}

{Counterpart Signature Page 1 of 2}

AMERICAN BATTLEFIELD TRUST,
a Virginia non-stock nonprofit corporation

By: David N. Duncan

David N. Duncan
President

DISTRICT of COLUMBIA)
CITY of WASHINGTON), to-wit:

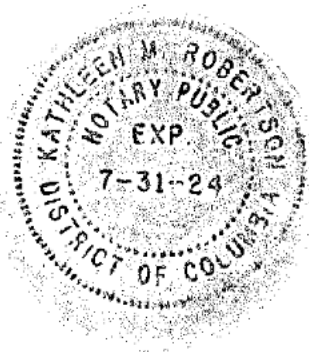
The foregoing Deed of Gift of Historic Preservation and Open-Space Easement was acknowledged before me this 26th day of June, 2024, by David N. Duncan, acting in his capacity as President and on behalf of the American Battlefield Trust, Grantor therein.

Kathleen M. Robertson
Notary Public

My commission expires: 7/31/2024

Notary Commission No. N/A

(SEAL)



{Counterpart Signature Page 2 of 2}

Accepted:

Grantee:

COMMONWEALTH OF VIRGINIA, BOARD of HISTORIC RESOURCES

By:

Julie V. Langan

Director, Commonwealth of Virginia, Department of Historic Resources

COMMONWEALTH of VIRGINIA
CITY of RICHMOND

), to-wit:

The foregoing Deed of Gift of Historic Preservation and Open-Space Easement was acknowledged before me this 26 day of JUNE, 2024, by Julie V. Langan, acting in her capacity as Director, Virginia Department of Historic Resources, on behalf of the Commonwealth of Virginia, Board of Historic Resources. Grantee therein.

Megan E. Melina
Notary Public

My commission expires: 8/31/2028

Notary Commission No. 7508777

(SEAL)

MEGAN E. MELINAT
NOTARY PUBLIC
Commonwealth of Virginia
Registration No. 7508777
M. Commission Expires August 31, 2025

Exhibit A**Legal Description**

All the certain lot or parcel of land lying with all improvements and appurtenances thereon and being situate in the County of Prince William, Virginia, described as Tax Parcel GPIN 7594-76-0448 containing 10.0503 acres, more or less, being more fully described in Deed dated November 2, 2005 and recorded as Instrument No. 200511040192423, and further being shown as Lot 3 on Division Plat Property of Hawk Investments, LLC recorded as Instrument No. 200511040192424, among the land records of Prince William County, Virginia.

AND All the certain lot or parcel of land lying with all improvements and appurtenances thereon and being situate in the County of Prince William, Virginia, described as Tax Parcel GPIN 7594-77-3726, containing 12.3090 acres, more or less, being more fully described in Deed dated January 23, 2015 and recorded as Instrument No. 201501270006358, and further being shown on Plat Showing the Property of Thomas P. Jr. & Diana L. Rollins recorded as Instrument No. 200205280068168, among the land records of Prince William County, Virginia.

BEING the same property conveyed to American Battlefield Trust, a Virginia non-stock corporation, by deed from MCRB, LLC, a Virginia limited liability company, dated December 28, 2021, and recorded in the Clerk's Office of the Circuit Court of Prince William County, Virginia, at Instrument No. 202112290142286; and the same property conveyed to American Battlefield Trust, a Virginia non-stock corporation, by deed from Larry D. Rollins, dated December 28, 2021, and recorded in the Clerk's Office of the Circuit Court of Prince William County, Virginia, at Instrument No. 202112290142305.

ALSO BEING the same real estate shown on that survey/plat entitled "10806 AND 10810 BRISTOW ROAD GPIN 7594-77-3726 & GPIN 7594-76-0448 BRENTSVILLE MAGISTERIAL DISTRICT PRINCE WILLIAM COUNTY, VIRGINIA", prepared by H. Aubrey Hawkins Associates, Ltd., dated May 21, 2021, which plat is recorded in the Clerk's Office of the Circuit Court of Prince William County, Virginia as Instrument No. 202406180031481.

Exhibit B**Preservation and Conservation Values**

B-1 The Property is located at 10806 and 10810 Bristow Road, Bristow, Virginia 20136 and consists of two (2) contiguous tax parcels, totaling ±22.3593 acres. It is bordered to the northeast by Bristow Road and two residential parcels, to the northwest by a Norfolk-Southern railroad corridor, and to the south by open-space agricultural land. The Property contains an agricultural complex that includes a house, dairy barn, granaries, a silo, and various other outbuildings. It is surrounded by agricultural fields currently used for hay and crop production. A small, unnamed tributary to Broad Run, surrounded by wooded cover, cuts across the northwest corner of the Property and this stream is connected to two areas of freshwater emergent wetlands that extend from northwest to southeast across the Property.

B-2 The Property, as of the Effective Date, contains approximately ±22.3593 acres of land that lie within the core area of the Bristoe Station Battlefield (VA040) as determined by the Civil War Sites Advisory Commission (the “CWSAC”), which has given the battlefield a Preservation Priority I.3, Class B Rating.

B-3 The CWSAC defines Priority I battlefields as those with “a critical need for action”, and reserves Class B for those battles that had a direct and decisive influence on their campaign, in this case the Bristoe Campaign of 1863.

B-4 The Battle of Bristoe Station took place on October 14, 1863, when Confederate Lt. General A.P. Hill attacked what he thought was the rear guard of the retreating Union Army, but was actually a portion of the Union V Corps supported by the Union II Corps under Maj. Gen. Gouverneur K. Warren. Approaching Bristoe Station from the northwest, Hill deployed his divisions to attack the rear of the V Corps on the north side of Broad Run. Simultaneously, the II Corps was moving northeast along the Orange and Alexandria Railroad, when they came across the right flank of Hill’s forces. Warren deployed his troops along the railroad grade, hiding his full force from the Confederates. Union fire from this position decimated the Confederate ranks, resulting in over 1,300 casualties and a resounding defeat that allowed the Union to consolidate the Army of the Potomac near Centerville.

B-5 During the Battle, Union forces moving north along the Orange and Alexandria Railroad passed through the Property. Additionally, Warren’s II Corps would have taken up positions along the northwestern Property boundary along the grade of the modern rail right-of-way, which was formerly the Orange and Alexandria Railroad.

B-6 As of the Effective Date, the Property also contains ±22.3593 acres of land within the core area of the Manassas Station Operations (Kettle Run) Battlefield (VA024), as determined by the CWSAC, which has given the battlefield a Preservation Priority IV.1, Class B Rating.

B-7 The CWSAC defines Priority IV battlefields as those that are considered fragmented with poor integrity, and reserves Class B for those that had a direct and decisive influence on their campaign, in this case the Northern Virginia Campaign of 1862.

B-8 The Manassas Station Operations (Kettle Run) took place between August 25 and August 27, 1862, when Confederate Lt. Gen. Thomas “Stonewall” Jackson moved his 2nd Corps to attack to the Union supply depot at Manassas Junction and draw Union Maj. Gen. John Pope’s Army of Virginia away from Warrenton. After marching around the Union position and through Manassas Gap, Jackson struck Bristoe Station on the evening of August 26, scattering the defending garrison and derailling several supply trains. Jackson then moved to the northeast capturing Manassas Junction and leaving a division under Maj.

Gen. Richard Ewell to guard his rear along Kettle Run, just southwest of Bristoe Station. Union forces under Brig. Gen. Joseph Hooker approached Bristoe Station from the south on August 27. Ewell managed to delay Hooker's advance and withdrew to Manassas Junction in late-afternoon.

B-9 During the Manassas Station Operations, the Property was immediately adjacent to Bristoe Station on the Orange and Alexandria Railroad, the target of the initial Confederate assault on August 26. Later, on August 27, Ewell established his skirmish line to the southwest of the Property along the banks of Kettle Run. As fighting continued into the afternoon, Ewell's division withdrew across the Property to rendezvous with Jackson at Manassas Junction.

B-10 As of the Effective Date, the Property consists of ± 22.3593 acres of historic battlefield landscape. The battlefield landscape is comprised primarily of open fields and meadows, located to the southeast of a modern railroad right-of-way. Critical landscape features associated with the Civil War battles remain intact, including (i) the location of the railroad corridor, and (ii) the small perennial stream that feeds Broad Run. The rural character and quality of the Property and surrounding area contribute to the landscape's historic battlefield integrity.

B-11 The Property contains one (1) Known Archaeological Site, which contains the remains of historic domestic occupations dating to the 19th and 20th centuries. The site is formally recorded in the VDHR's permanent archive.

B-12 The previously identified archaeological site on the Property serves as indication that the Property as a whole is likely to contain additional sites, deposits or features associated with its prehistoric and historic use and occupation. Additionally, the Property has significant archaeological potential as a Civil War battlefield. Based on the concentration of troop movement and direct engagement of the opposing armies across or on the Property during the Manassas Station Operations and Battle of Bristoe Station it has the potential to contain archaeological sites, deposits and features associated with the Civil War.

B-13 The Property is ranked two (2) in the Cultural Resource Preservation Index maintained by the VDHR. The index displays the likelihood of a given location to have conservation value when considering known and evaluated cultural heritage resources. Resources that have been surveyed in the inventory are ranked by degree of cultural interest. A ranking of three (3) is the highest in the index.

B-14 As of the effective date, the Property contains approximately ± 22.3953 acres of open-space land, consisting of approximately ± 19.95 acres agricultural fields used for crop and hay production, and ± 0.77 acres of forested cover. An additional ± 2 acres consists of open space lawn surrounding the agricultural complex.

B-15 As identified in the NRCS Web Soil Survey of the United States Department of Agriculture ("USDA"), the Property contains approximately ± 16.0 acres of Prime Farmland. Prime Farmland is defined by the USDA as "[l]and that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods." The provisions of this Easement requiring sustainable agricultural practices and management of water resources will enhance conservation of the agricultural values associated with the Property.

B-16 The Property contains ± 0.41 acres of freshwater emergent wetlands documented on the NWI.

B-17 The Property contains ±424 linear of feet of an unnamed perennial stream as of the Effective Date. This stream is within the Broad Run-Rocky Branch subwatershed and Middle Potomac-Anacostia-Occoquan watershed, which drains into the Chesapeake Bay.

B-18 The documented stream is perennial. Pursuant to the Chesapeake Bay Preservation Act, Virginia Code § 62.1-44.15:67-79, this portion of the tributary has been designated a Chesapeake Bay Preservation Area by Prince William County's Resource Protection Areas program.

B-19 The Property is visible from Bristow Road (State Route 619), which is a public transportation corridor. The Property represents publicly significant open space in this corridor, and the Property's historic and open-space resources contribute to the historic, cultural, and open-space features that define the existing rural character and landscape quality along this roadway.

B-20 In accordance with Virginia Code § 10.1-200, the 2018 Virginia Outdoors Plan (the "VOP") is Virginia's official document regarding land conservation, outdoor recreation and open space planning. It provides guidance for the protection of lands through actions of the Virginia Land Conservation Foundation, and the VOP is required in order for Virginia to take part in the federal Land and Water Conservation Fund ("LWCF") program. Chapter 12 of the VOP, entitled "Land Conservation," states: "Conserved open-space lands provide benefits in terms of resilience to climate change, working (agricultural and forested) landscapes, scenic landscapes, recreation, natural areas and parks, cultural and historic resource protection, natural resource protection, water quality improvement and maintenance, and carbon sequestration, along with the substantial economic benefits associated with these functions;" (VOP, Page 12.2) and "Land conservation is vital for protecting many of Virginia's shared community assets, such as its rich biodiversity, outdoor recreation, water quality, historic and scenic resources, and working landscapes. Localities and stakeholders who wish to preserve essential landscape components will be well served by a comprehensive landscape-conservation strategy." (VOP, page 12.3) The VOP further states that the "Preservation of historic resources is linked with land conservation and open-space protection. As development spreads, it becomes even more important to protect cultural resources, which provide insight into the social, cultural and economic development of Virginia and give citizens a tangible link to the past. These resources include historic houses, commercial buildings, factories, mills, churches, battlefields, archaeological sites and cultural landscapes. It is sound environmental policy to protect these resources, which preserve important examples of the past needed to inspire and inform future generations." (VOP, Page 12.7) The VOP acknowledges that "Historic resources are also important to Virginia's economy. Attractive financial incentives spur private investment in historic structures, resulting in the rehabilitation and revitalization of neighborhoods and cities. At the same time, heritage tourism draws thousands of people to Virginia's towns and cities each year. The 2017 VODS (Virginia Outdoors Demand Survey) reports that visiting historic areas is the fifth most needed outdoor recreation activity. Thus, protecting Virginia's historic and cultural resources in their landscape settings is essential to maintaining the quality of life in the state." (VOP, Page 12.8)

B-21 Chapter 13 of the VOP, titled "Regional Recommendations," establishes outdoor recreational planning regions, and Region 8: Northern Virginia incorporates the Property. Among its land conservation recommendations for this region, the VOP includes the following; "the appropriate conservation activities and methods of protection will vary with each site but may include placing the site on Virginia's Registry of Natural Areas; developing a voluntary management agreement with the landowner; securing a conservation easement through a local land trust; acquiring the site through a locality or local land trust; dedicating the site as a natural area preserve with the current owner; or acquiring the site as a state-owned natural area preserve" (VOP, 13.51); and offers the following recommendations for historic and landscape resources: "appropriate conservation activities may include installation of highway markers to commemorate historic locations and events, placement of historic properties on the Virginia Landmarks Register or National Register of Historic Places and placement of historic preservation and open space easements." (VOP, Page 13.50)

B-22 The Property is located within the Journey Through Hallowed Ground National Heritage Area (“JTHG NHA”), a 180-mile region created by the “Journey Through Hallowed Ground National Heritage Act of 2008” (Pub. L. 110-229, Title IV, Subtitle A). The JTHG NHA is a corridor that generally follows U.S. Route 15 through four states from Gettysburg in Adams County, Pennsylvania to Monticello in Albemarle County, Virginia. Among its purposes, the JTHG NHA was established to preserve, support, conserve, and interpret the legacy of American History created along the JTHG NHA and to recognize and interpret the effect of the Civil War on the civilian population of the JTHG NHA during the war and post-war reconstruction period.

B-23 The Property lies within the Virginia Piedmont Heritage Area, an 1,800-acre area of Northern Virginia designated a Heritage Area by the Commonwealth of Virginia in 1995 to increase awareness of the historic, scenic, and natural qualities of the region.

B-24 The Property lies adjacent to or nearby lands protected by historic preservation and open-space easements held by Grantee in Prince William County and recorded in the land records of the Clerk’s Office including: (i) the ±21.0132-acre Bel Air Tract, recorded on June 24, 1988 at Deed Book 1575, Page 1511; (ii) the ±12.942-acre Bel Air Open-Space Tract, recorded on May 15, 1991; (iii) the ±5.999-acre Ben Lomond Tract, recorded on July 28, 1999 at Deed Book 2800, Page 1239; (iv) the ±134.89-acre Pilgrim’s Rest Tract, recorded on December 12, 1994 at Deed Book 732, Page 1370; (v) an additional ±23.9-acre parcel at Pilgrim’s Rest, recorded on December 13, 2006 as Instrument Number 200612130173522; (vi) an additional ±10.99-acre parcel at Pilgrim’s Rest, recorded on December 29, 2008 as Instrument Number 200812290120537; (vii) the ±0.2563-acre Brentsville Courthouse tract, recorded on March 14, 2001 as Instrument Number 200105070042627; (viii) the ±40-acre Rippon Lodge tract, recorded on March 15, 1978 at Deed Book 978, Page 541; (ix) the ±133.3841-acre Bristoe Station Battlefield Heritage Park, recorded on October 20, 2009 as Instrument Number 20091020010775; (x) the ±70.203-acre Buckland Farm, recorded on June 23, 2010 as Instrument Number 201006230053498; (xi) the ±0.5-acre Buckland Tavern tract, recorded on July 29, 2009 as Instrument Number 200907290074664; (xii) the ±41.64-acre Buckland Mill Tract, recorded on March 31, 2011 as Instrument Number 201103310027065; (xiii) the ±2.3511-acre John Trone House tract, recorded on July 29, 2009 as Instrument Number 200907290074666; (xiv) the ±20.3097-acre Buckland Commons Tract, recorded on June 23, 2010 as Instrument Number 201006230053497; (xv) the ±8.0-acre James Madison Highway tract, recorded on January 19, 2011 as Instrument Number 201101190004778; (xvi) the ±5.185-acre Broad Run tracts, recorded on September 7, 2011 as Instrument Number 201109070074103; (xvii) the ±9.564-acre Stonewall Cemetery tracts, recorded on October 3, 2011 as Instrument Number 201110030080986; (xviii) the ±20.00-acre Cerro Gordo tract, recorded on March 23, 2012 as Instrument Number 201203230026549; and (xix) the ±2.579-acre Yeates tract, recorded on January 5, 2017 as Instrument Number 201701050001290; (xx) the ±3.1602-acre Gibson Tract, recorded on November 22, 2017 as Instrument Number 201711220088448; (xxi) the ±5.8617-acre Pardue Tract, recorded on July 13, 2021 as Instrument Number 202107130082406; (xxii) the ±1.4778-acre Kings Highway Tract recorded on September 16, 2022 as Instrument Number 202209160067282; and (xxiii) the ± 10.26-acre Peeler Tract recorded on December 28, 2023 as Instrument Number 202312280065807.

B-25 The Property is immediately adjacent to the Bristoe Station Battlefield Heritage Park managed and operated by Prince William County and held under easement by Grantee. The Rollin’s Tract will add to the approximately ± 133.38 acres of the Bristoe Station and Manassas Station Operations (Kettle Run) battlefields already protected by the park.

B-26 This Easement is in furtherance of and pursuant to clearly delineated governmental policies and documents set forth below:

- a. Land conservation policies and documents of the United States of America as set forth in:
 1. *"The Report on the Nation's Civil War Battlefields"* (1993, revised 2009) issued by the CWASC, authorized under 54 U.S.C. § 100507 (as amended).
 2. The ABPP Authorization Statutes.
 3. The Land and Water Conservation Fund Act (54 U.S.C. §§ 200301 – 200310).
 4. The provisions of the Consolidated Natural Resources Act of 2008 establishing the JTHG NHA (Pub. L. 110-229, Title IV, Subtitle A, 122 Stat. 754, 802-09 (May 8, 2008)).
 5. NWI, United States Fish and Wildlife Service.
 6. The NRCS Soil Survey, which identifies areas of Prime Farmland, as classified and defined by the United States Department of Agriculture.
- b. Land conservation policies and documents of the Commonwealth of Virginia as set forth in:
 1. Section 1 of Article XI of the Constitution of Virginia.
 2. Virginia Code §§ 10.1-2200 - 10.1-2214.
 3. The Open-Space Land Act §§10.1-1700 -10.1-1705.
 4. Virginia Code § 10.1-1017 *et. seq.*
 5. *The Virginia Outdoors Plan* (2018), prepared by the Virginia Department of Conservation and Recreation.
 6. The Chesapeake Bay Preservation Act, Virginia Code §§ 62.1-44.15:67 - 79.
 7. The Virginia Piedmont Heritage Area.
 8. Grantee's practices in reviewing and accepting this Easement, which include review by VDHR's Easement Program staff, review by a committee comprised of VDHR staff from different divisions and review and acceptance by Grantee at a public meeting, as set forth in Grantee's written adopted policies.
- c. Land use policies of the County of Prince William as delineated in:
 - 1) the Prince William County 2040 Comprehensive Plan, Land Use Chapter, adopted by the Board of Supervisors December 13, 2022 to which plan the restrictions set forth in this deed conform as follows:
 - a) Land Use Policy 9: "Encourage a land use pattern that supports preservation of cultural, historic and archaeological sites and the goals and objectives of the Cultural Resources Plan. (Page 14)
 - i) Action Strategy, 9.1: "Encourage development densities at the low end of the range of the land use classifications and/or provide context appropriate mitigation adjacent to County Registered Historic Sites ("CHRS"), as reflected on the Long-Range Land Use Map and in the Cultural Resources Plan." (Page 14)
 - b) Land Use Policy 10: "Preserve and enhance the unique architectural and landscape qualities of the County." (Page 14)
 - i) Action Strategy, 10.4: "Encourage any new development in rural communities to preserve the visual character of the rural landscape by providing appropriate building setbacks, with landscaped/ preserved open space occupying the setback area; and preserve important scenic resources—hedgerows, mature trees, farm buildings, walls and fences, and open fields." (Page 15)
 - c) Land Use Policy 11: "Encourage site plans and building designs for new development that enhance the settings of the County Registered Historic Sites, as identified in the Cultural Resources Plan." (Page 15)

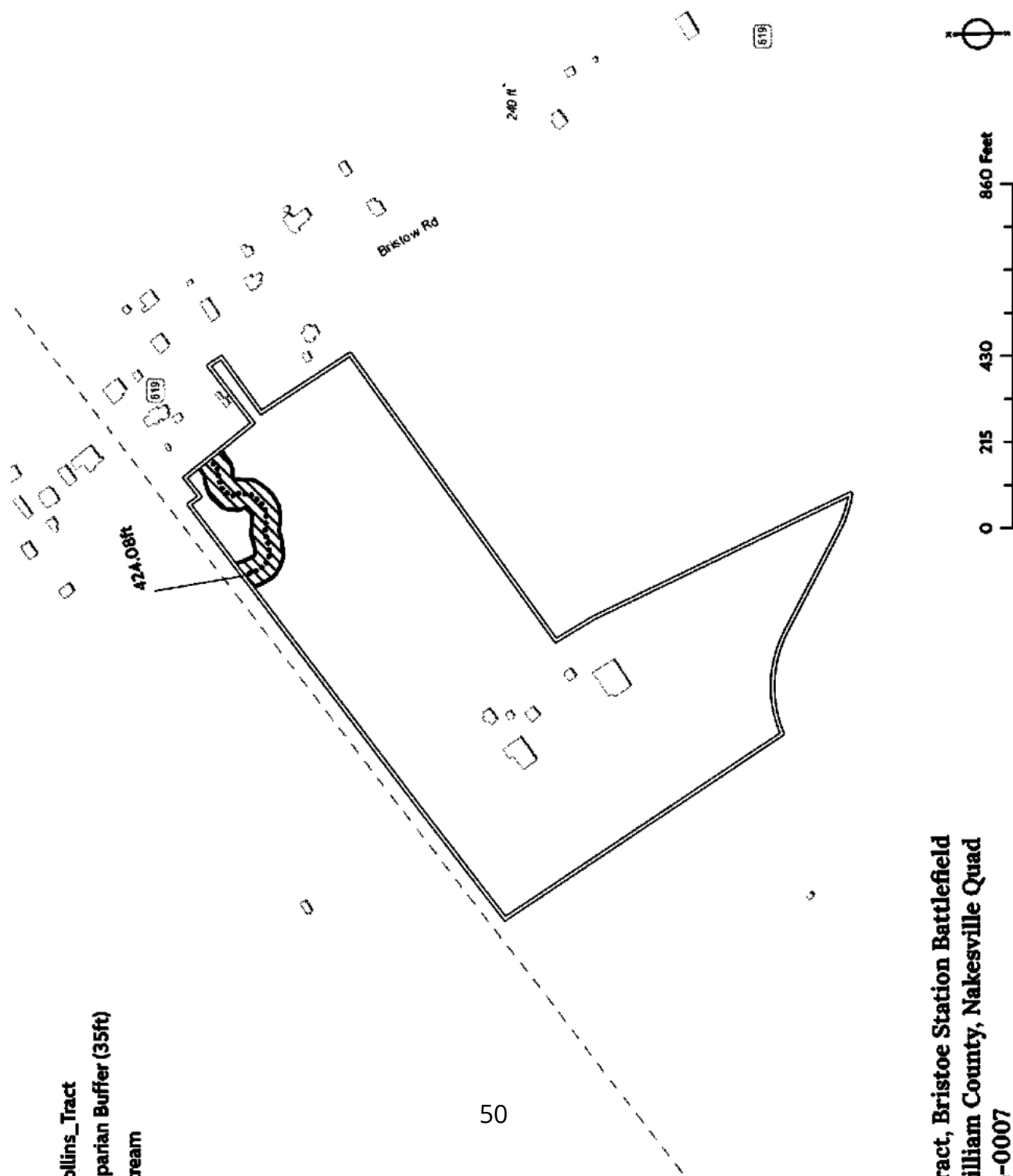
- i) Action Strategy, LU 11.2: “Encourage the preservation of views to and from historic properties through the protection of farm fields, meadows, and woodlands.”
 - d) Land Use Policy 17: “Promote sustainable land development that provides for a balance of economic opportunity, social equity including environmental justice, and protection of the natural environment.” (Page 24)
 - i) Action Strategy, LU 17.3: “Encourage land use activities and patterns, such as buffers and open space, to protect surface and groundwater resources.” (Page 24)
- 2) The Prince William County Comprehensive Plan, Cultural Resource Chapter, adopted by the Board of Supervisors October 17, 2017 and amended on February 12, 2019 to which plan the restrictions set forth in this deed conform as follows:
- a) CR-POLICY 3: “Enhance the awareness of Prince William County’s history and the importance of the County in the historical development of the Commonwealth of Virginia and the United States.” (Page 9)
 - i) Action Strategy, CR 3.6: “Ensure that land owners and developers evaluate the potential benefits to Prince William County’s citizens and visitors – and to the owner/developer – of preserving the County’s significant cultural resources either through a donation of a site and/or building to the County or otherwise preserving and reusing a site and/or building as part of a development, if permitted by per Sec 15.2 -2303.4.” (Page 9)
 - ii) Action Strategy, CR 3.9: “Continue to preserve and develop the Brentsville Courthouse Historic Centre, Bristoe Station Battlefield Heritage Park, Ben Lomond Historic Site, Rippon Lodge Historic Site, Williams Ordinary, and other historic sites or buildings acquired by the County for the educational, programming, rental, and interpretive benefit of County citizens and their guests.” (Page 9)
 - b) Cultural Resource, Policy 7: “Apply mitigation measures to all new development within the Bristoe Station Historical Area.” (Page 14)
 - i) Action Strategy, CR 7.3: “Encourage property owners to dedicate land to the County or provide historic resource or conservation easements at the time a rezoning is granted per Sec 15.2 -2303.4, or a special use permit or other site development is approved, whichever occurs earliest, for the purpose of preserving and providing public access to historically significant features of the Bristoe Station Historical Area, particularly along pedestrian trails where historic markers and other interpretive materials will be located to provide information about the Battle of Bristoe Station and other significant uses of the area during the Civil War.” (Page 14)
- 3) A letter dated April 22, 2021 from the Prince William County Long Range Planning Manager confirming that placement of an easement on this Property is consistent with the Prince William County Comprehensive Plan.

B-27 This Easement will yield significant public benefit to the citizens of the Commonwealth as set forth in the Recitals above and, more particularly, as set forth below:

- a. The Property is of historic and archaeological significance and is within the boundaries of Virginia battlefields with preservation priority ratings from the CWSAC. Restrictions on alterations of historic resources on the Property, including archaeological resources, and requirements for the maintenance of such resources, will ensure the Property retains its integrity as an historic site and Civil War battlefield landscape.
- b. The Property is visible from Bristow Road (State Route 619) and preservation of open space along this corridor will protect scenic and historic viewshed for the general public and local residents.
- c. The Property is in close proximity to other properties subject to historic preservation and open-space easements held by Grantee, most notably the Bristow Station Battlefield Heritage

- Park owned by Prince William County. The preservation of the Property by this Easement will add to the acreage already protected by Grantee and the County.
- d. Preservation of the open-space character of the Property preserves a local landscape that attract tourism and commerce to the area and enhances the quality of life for area residents. Restrictions on development, new construction, and ground disturbing activities in this Easement will protect the open-space character of the Property and prevent excessive development, soil disturbance, and pollution on the Property, which would lead to or contribute to the degradation of the scenic character of the area.
 - e. The Preservation of the Property will protect 16.0 ± acres of Prime Farmland as defined by the NRCS. Protection of these resources will preserve the natural and economic benefits of maintaining productive agricultural lands, such as increased soil productivity. The provisions of this Easement requiring sustainable agricultural practices will enhance conservation of the agricultural values associated with the Property.
 - f. The Property contains 424 ± linear of feet of frontage along an unnamed perennial stream that feeds Broad Run and 0.41 ± acres of freshwater emergent wetlands. The Easement requires a vegetated riparian buffer to be maintained along the stream on the Property. By protecting riparian and forested/vegetated areas along such streams from disturbance, stream bank erosion, and sedimentation, the Easement benefits and enhances water quality within Broad Run, the Broad Run-Rocky Branch subwatershed, Middle Potomac-Anacostia-Occoquan watershed, and Chesapeake Bay watershed.
 - g. The Easement requires public access to the Property be available on a daily basis and Grantor has made the Property accessible year-round for recreation and historic tourism.
 - h. The protection of the Property by this Easement will fulfill the intent of the 2018 VOP to protect Virginia's historic, open-space, and natural resources, and to place historic preservation and open-space easements on historic properties.

EXHIBIT C: Riparian Protection Zone



Collins Tract
Riparian Buffer (35ft)
Stream

Tract, Bristol Station Battlefield
William County, Nakesville Quad
-0007



Managing Land in the Piedmont of Virginia

for the Benefit of Birds & Other Wildlife



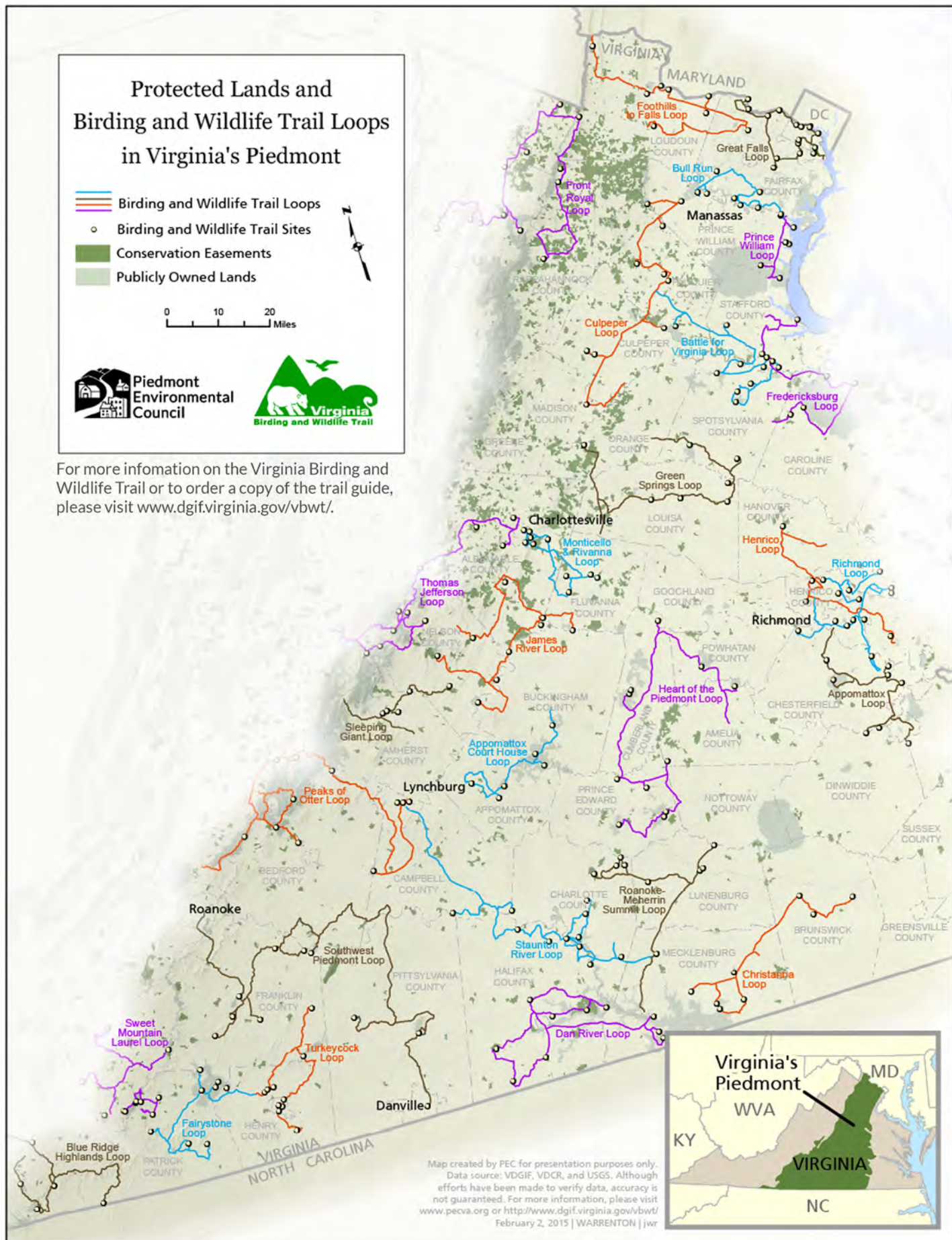
Protected Lands and Birding and Wildlife Trail Loops in Virginia's Piedmont

-  Birding and Wildlife Trail Loops
-  Birding and Wildlife Trail Sites
-  Conservation Easements
-  Publicly Owned Lands

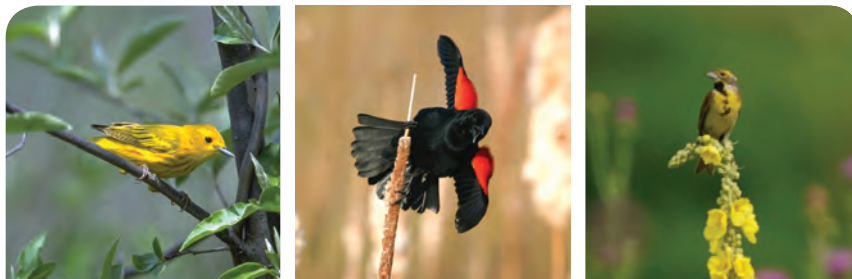
0 10 20
Miles



For more information on the Virginia Birding and Wildlife Trail or to order a copy of the trail guide, please visit www.dgif.virginia.gov/vbwt/.



COVER PHOTOS: View, Katherine Vance; Short-eared Owl, Glen Tepke; Kentucky Warbler, Glen Tepke; Eastern Towhee, Ellen & Tony



Managing Land in the Piedmont of Virginia

for the Benefit of Birds & Other Wildlife

Third Edition, 2016

Authors:

Faren Wolter, The Piedmont Environmental Council*
 Stephen Capel, Virginia Department of Game & Inland Fisheries, retired
 David Pashley, American Bird Conservancy
 Susan Heath, Gulf Coast Bird Observatory

*= at the time of second publication

Revisors:

Celia Vuocolo, The Piedmont Environmental Council
 Carolyn Sedgwick, The Piedmont Environmental Council
 Sergio Harding, Virginia Department of Game and Inland Fisheries

Suggested Citation:

Vuocolo, C., C. Sedgwick, S. Harding, F. Wolter, S. Capel, D. Pashley, and S. Heath. 2016.
 Managing Land in the Piedmont of Virginia for the Benefit of Birds and Other Wildlife:
 Third Edition. Warrenton, Virginia. 32 pp.



The Piedmont Environmental Council

The Piedmont Environmental Council (PEC) is a 501(c)(3) nonprofit conservation organization and an accredited, regional land trust. Founded in 1972, PEC uses a comprehensive strategy to promote and protect the Virginia Piedmont's rural economy, natural and historic resources, and scenic views. Accordingly, PEC works with landowners, residents, and local governments to ensure the long-term protection of their communities and quality of life through land conservation and land use planning that directs growth to places which ensure that new development fulfills the vision of local citizens. As communities change, PEC works to foster a sense of history, establish a viable transportation network, create enjoyable neighborhoods, promote strong local economies, and initiate opportunities which allow everyone to enjoy the outdoors.

PEC primarily serves Albemarle, Orange, Madison, Greene, Culpeper, Fauquier, Loudoun, Clarke, and Rappahannock Counties, although assistance is also provided to citizens and organizations with parallel missions in neighboring counties. Consequently, PEC is recognized nationally for leadership in promotion of smart growth principles, land conservation, and related work in rural historic preservation, conservation of working forests and farmland, wildlife habitat, and watershed protection. Please view its website: www.pecva.org.

Virginia Department of Game and Inland Fisheries

As Virginia's wildlife agency, the Virginia Department of Game and Inland Fisheries (VDGIF) works to manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating, and related outdoor recreation and to work diligently to safeguard the rights of the people to hunt, fish and harvest game as provided for in the Constitution of Virginia; to promote safety for persons and property in connection with boating, hunting and fishing; and to provide educational outreach programs and materials that foster an awareness of and appreciation for Virginia's fish and wildlife resources, their habitats, and hunting, fishing, and boating opportunities. VDGIF is responsible for the management of inland fisheries, wildlife, and recreational boating for the Commonwealth of Virginia.

VDGIF is a leader in Virginia in the conservation of birds that are traditionally hunted, such as waterfowl, Wild Turkey, American Woodcock, Northern Bobwhite, and Ruffed Grouse; as well as of nongame avian species, including land birds such as Red-cockaded Woodpecker, Golden Eagle, Peregrine Falcon, Loggerhead Shrike, Golden-winged Warbler and Cerulean Warbler; colonial waterbirds such as terns and herons; and shorebirds such as Piping Plover and American Oystercatcher. Bird conservation by VDGIF includes research and monitoring of bird populations; regulatory review of projects in relation to wildlife resources, including state or federally endangered and threatened species; land acquisition, and habitat management on Virginia's Wildlife Management Areas; and a number of recreational, educational, and outreach programs, including the establishment of the Virginia Birding and Wildlife Trail and sponsorship of Virginia birding festivals. Please view its website: www.dgif.virginia.gov.

American Bird Conservancy

American Bird Conservancy (ABC) is the only 501(c)(3) organization that works solely to conserve native wild birds and their habitats throughout the Americas. ABC acts to safeguard the rarest bird species, restore habitats, and reduce threats, while building capacity in the conservation movement. ABC is the voice for birds, ensuring that they are adequately protected; that sufficient funding is available for bird conservation; and that land is protected and properly managed to maintain viable habitat.

ABC sets the bird conservation agenda by using the best science available to determine the highest priorities and the best solutions, and then communicating these priorities to the conservation community and the public through alliances, partnerships, and networks. ABC counts among its staff some of the foremost experts in bird conservation in the United States, and partners with many others throughout the Americas.

ABC is a membership organization that is consistently awarded a top, four-star rating by the independent group Charity Navigator. Please view its website: www.abcbirds.org.

Acknowledgements

We extend our deep thanks to Bruce and Susan Jones and to Environmental Studies on the Piedmont for providing the funding to design and publish this third edition. Environmental Studies on the Piedmont, the conservation division of The Clifton Institute, focuses on quality outdoor education, research, and habitat restoration that serves as a local and national model for conservation in practice.

We thank Sarah Gannon Nagle for conceptualizing and writing the grant proposals that started the first edition.

We are extremely grateful to the numerous people who have contributed to the various editions of this guide. Each edition has been reviewed by and received contributions from many partners, some of whom have provided feedback for more than one version of the guide. This includes partners from the Virginia Natural Heritage Program, the Virginia Department of Forestry, and the Natural Resources Conservation Service.

We would also like to thank some of the supporting organizations who helped guide the third edition of this publication: Private Lands Wildlife Biologists (jointly employed by the Natural Resources Conservation Service, Virginia Department of Game and Inland Fisheries, and the Conservation Management Institute at Virginia Tech), the American Bird Conservancy, Smithsonian Conservation Biology Institute, and Environmental Studies on the Piedmont, among others.

We also thank Shayan Ghajar (Middleburg Agricultural Research and Extension Center) for sharing his expertise and for his contributions to the 'Grassland' and 'Savanna' sections when he was formerly working with The Piedmont Environmental Council on a grant project; Amy Ewing (Virginia Department of Game and Inland Fisheries) for her contributions to the 'Wetlands' and 'Riparian Areas' section; Jonathan Marquisee and Watsun Randolph (Piedmont Environmental Council) for creating the maps in this publication; and the photographers who generously provided photographs for this guide.

Managing Land in the Piedmont of Virginia for the Benefit of Birds & Other Wildlife

The purpose of this guide is to provide landowners with an introduction to land management concepts and conservation tools that can be used to benefit wildlife and counter some of the threats faced by declining bird species. Although this guide focuses specifically on birds, management that is beneficial to birds often benefits other wildlife that share the same habitats. If you own land in the Virginia Piedmont, whether a large farm or estate, or a small backyard, you can help provide valuable habitat for birds. Simple changes can provide great benefits to birds and other wildlife. For example, allow native vegetation to grow along a fence row, or reduce your lawn footprint by removing turf and planting wildflowers.

While this guide offers general recommendations for habitat management, management decisions may depend on your particular situation. Consider talking to local experts in your area who can help answer property-specific questions. The guide is organized by habitat type, with additional sections on invasive plants, biofuels, resources, and connecting with professionals.

Nearly 130 species of birds breed in the Virginia Piedmont. Data show that populations of many of these species have declined in recent decades. Habitat loss and degradation are the most significant factors causing these declines. Suburban and agricultural development have eliminated much of the region's hardwood forest, and non-native plants and lack of management have impaired much of what remains. Non-native grasses of sub-optimal value to most birds dominate pastures, and early mowing for hay destroys the nests of birds that attempt to breed in tall grass. Farm modernization and increased pesticide use have reduced the value of agricultural lands for birds, in part by eliminating many brushy fence lines, ditches, and road banks that formerly provided valuable habitat for nesting and foraging.



Why are bird population declines and habitat loss important to consider? Birds are an integral part of our ecosystems and thus help maintain the dynamic balance of nature. They are some of our best pest control agents, reducing rodent populations and helping to keep insect populations in check that might otherwise defoliate and damage timber and crops. Birds also serve as one of our most efficient seed dispersers, helping to maintain the vigor of our forests and grasslands and enabling propagation of many woody plant species with direct value to humans. Many bird species act as scavengers, providing services such as waste removal, disease regulation and nutrient cycling. Birds also act as ecosystem engineers, building or excavating nests that are used by a number of small mammals, reptiles and amphibians, and insect species. In addition, birds are aesthetically pleasing, providing beauty of both sight and sound. Birdwatching has become a very popular pastime, generating billions of dollars each year spread across local economies. Perhaps most importantly, birds and other wildlife depend on sound habitat stewardship by those of us who are landowners, and it is our responsibility to assure that future generations have these natural resources to nurture and enjoy. Read on about how you can help.



Agricultural field border, Mike Budd

Agricultural Habitat

Management of agricultural land can have important implications for birds. Not only do some birds make direct use of this habitat, but many other species, both close by and distant, can be affected by agricultural practices.

Several bird species that occur in the Piedmont have been documented to nest directly in crops. A great many other species use the open fields for hunting and foraging and nest in the weedy borders and shrubby edges of cropland. Raptors, including Red-tailed Hawk, American Kestrel, Northern Harrier, Barn Owl, and Great Horned Owl, hunt in crop fields, removing small rodents and insects. In fall and winter, agricultural fields provide food for migrating and wintering sparrows, Northern Bobwhite, and Wild Turkey. Waterfowl and shorebirds frequently feed in flooded portions of crop fields during migration. Depending on their quality, agricultural buffers can be used by a wide variety of shrubland breeding species, including Northern Bobwhite, Common Yellowthroat, and Indigo Bunting, as well as by wintering sparrows.

Maintaining Active Agricultural Production with Considerations for Wildlife

Increasing the availability of cover and food sources on your farm is key to attracting wildlife. Here are three techniques to consider:

Tillage

Conventional tillage practices, including disking or plowing, are detrimental to birds and the surrounding environment. These practices increase potential for soil erosion, which results in siltation of streams and wetlands. This can comprise the biological integrity of these delicate ecosystems, reducing their ability to support wildlife populations.

Consider replacing conventional tillage with a no-till regime or conservation tillage. For either practice, at least 30% of the soil remains covered by plants or plant residue.

- Conservation tillage helps to keep the soil in place, provides habitat for birds, and increases food availability.
- Conservation tillage and no-till leave more waste grain available as food for birds.
- No-till agriculture provides the greatest nesting and foraging opportunities for certain bird species. However, this practice is often accompanied by increased use of pesticides. Pesticides can poison birds directly, reduce their breeding success, and kill the insects that make up a large portion of their diet. Furthermore, they can impact the environment as far away as the Chesapeake Bay through runoff. If you employ no-till agriculture, consider practicing integrated pest management and minimizing the use of pesticides.



From Left to Right:
Common Yellowthroat, Barth Schorre
Indigo Bunting, Kelly Colgan Azar
Killdeer, Amy Johnson



Top Left: American Kestrel, Gary Smyle • Top Center: Agricultural field border, Marc Puckett • Top Right: Red-tailed Hawk, Gary Smyle • Below: Northern Bobwhite, Amy Johnson

Establishing and Maintaining Cover

Birds need cover to avoid predation. Maintaining residue or active growth on fields provides cover and reduces soil erosion and its associated problems. Ideally, ground cover should be present year-round.

- Rotate crops to maintain and improve soil productivity and fertility, reduce soil erosion, control weeds, and manage plant pests by breaking the pest cycle.
- Plant a cover of native grasses, grains, or legumes in unused fields or as a part of crop rotation. This provides many of the same benefits as crop rotation while also creating food and habitat for wildlife. Maintaining plant cover year-round is even better. See a list of native grass species in the 'Grasslands' section.
- In larger fields, planting alternating strips of native grasses or close-growing crops with cultivated crops can provide valuable nesting habitat and cover for wildlife.
- Leaving field and waterway edges unmowed and ungrazed helps prevent runoff and erosion, and provides areas where birds can raise young.

Field Buffers

In the past, the natural hedgerows and weedy areas often found around farmsteads provided both cover and abundant insect food for birds. These buffers were also critical habitat for

native pollinators, which play an important role in crop pollination. Herbicides and the tendency to eliminate brushy areas for aesthetic reasons or to maximize production have resulted in the loss of many of these shrubby habitats. This in turn has negatively impacted wildlife.

- Buffers between crop fields and forests or crop fields and pastures are very beneficial. Installing buffers between individual crop fields can also provide habitat for birds and attract pollinators.
- Buffers between 35 and 300 feet in width provide significant benefits for birds and other wildlife, with wider buffers being better. While much less beneficial to birds, buffers narrower than 35 feet are still helpful in preventing erosion and slowing runoff.
- Buffers should be planted with a variety of native plants of differing heights and sizes that provide food (fruit and nut-bearing tree and shrub species), winter cover (e.g. red cedar and American holly), and nesting opportunities.
- Manage buffers to control the spread of invasive plant species. Management is best accomplished in March or late August, either before or after the nesting season.
- Care should be taken not to create buffers against inhospitable areas like highways, as this creates a death trap for birds.



Northern Bobwhite

The iconic, sharply-whistled 'bob-white!' call may bring back nostalgic memories to those who heard it regularly back when quail were much more numerous in rural Virginia. Since then, changes in the quantity, quality, and distribution of its preferred habitats across the landscape have caused widespread declines in quail populations. While bobwhite quail can be successfully managed in timber stands, in Virginia's Piedmont they are still very much associated with farmland. There they are able to exploit weedy, brushy habitats such as field borders along active agricultural row crops. Consider playing a role in 'bringing back the Bobwhite' by consulting with Private Lands Wildlife Biologists and exploring the various quail-friendly cost-share programs available in the Commonwealth.

who
lives
here?

Grasslands

Barn Owl, ClipArt.com



Grasslands occurred mostly in the western Piedmont and along river systems in presettlement times. They were maintained there for thousands of years by human manipulation. Even before the European settlers cleared land for pasture and crops, Native Americans had maintained open areas through the use of fire. Fire-maintained grassland composed of giant cane (*Arundinaria gigantea*) used to be common in the Dan, Roanoke, and Bannister River floodplains. Now giant cane is rare in the Piedmont, since most canebrakes were cleared for crop cultivation, or grazed by livestock. Unfortunately, giant cane is difficult to re-establish since it spreads mostly

by rhizomes instead of seeds. Current Piedmont grasslands consist primarily of introduced cool-season grass pasture and hayfields.

Bird population analyses show that grassland birds are declining nationwide. The trend in the Virginia Piedmont is similar, with some breeding species, including Henslow's Sparrow, being nearly extirpated, and common species like Eastern Meadowlark and Grasshopper Sparrow in steep decline. This is largely due to habitat loss and fragmentation. Many bird species that nest exclusively in grasslands require tracts that exceed 20 acres in size in order to nest successfully. Piedmont grasslands are divided among many landowners with different management objectives and practices. This results in relatively small grassland patches that are often too isolated to be of real value to grassland-dependent bird species.

The decline in grassland bird populations is also driven by habitat degradation and conversion. This occurs via development, the introduction of non-native cool-season grasses, or through natural succession to shrubland and forest if grasslands are not actively maintained. Native grass meadows provide food, nesting sites, and appropriate ground cover structure for grassland

birds. The grasses in these native ecosystems tend to grow in bunches, allowing for movement on the ground for species such as Northern Bobwhite, while also providing overhead cover from predators and inclement weather because of their height and rigid structure. Introduced cool-season grasses provide inferior habitat for wildlife due to their lack of ground-level gaps (which facilitate movement) and overhead cover. Native warm-season grasses grow taller and have more rigidity to their structure than do cool-season grasses, resulting in more substantial shelter for wintering birds.

Creating and Maintaining Grassland Habitat

Size and configuration—Before you begin to manage or create a grassland on your property, first consider the size of your project area and its proximity to other ecological communities.

- Due to their breeding area requirements, certain grassland birds species will not use parcels smaller than 20 acres. If your tract is less than 20 acres in size, consider coordinating with adjacent landowners if some or all of their land can be co-managed to exceed that



threshold, or manage your smaller tract as a shrubland (refer to 'Shrublands' section).

- While not ideal, small fields (< 100 acres) can still provide breeding habitat for Bobolinks, Eastern Meadowlarks, Northern Bobwhite, and Savannah Sparrows. Larger tracts (>100 acres) support Grasshopper Sparrows and create the potential for re-establishment of Upland Sandpipers and Henslow's Sparrows. Northern Harriers, Short-eared Owls and other raptors may also use the fields for hunting in the winter.
- Circular or square tracts are better than rectangular or elongated tracts for grassland birds because they minimize the edge to area ratio, which reduces predation and therefore increases reproductive success.
- If managing primarily for pollinators, even small or irregularly-shaped tracts of native grasses and forbs can provide useful habitat.
- Placing roads and infrastructure near the edges of fields—rather than in the center—can help minimize fragmentation.

Optimum species composition

The most beneficial grassland plant species for wildlife are native grasses and forbs. Though no one mix will fit every scenario, Private Lands Wildlife Biologists, wildlife biologists, Virginia Cooperative Extension agents, or others familiar with native warm-season meadow establishment will be able to design a mix suited to your goals and the site's potential.

- Avoid seeding new meadows with exotic sod-forming grass and lawn grasses such as Kentucky bluegrass, orchardgrass, and tall fescue, which are all cool-season species.
 - These grasses are not beneficial to birds and require intensive on-going care, like fertilizer and herbicide applications that are costly and harmful to wildlife.
- Native warm-season bunch grasses do not require fertilizer to be highly productive, unlike introduced warm-season grasses such as bermuda or zoysia.
- These grasses provide dependable forage production during the summer for livestock when exotic cool-season species have slowed in growth.
- Daily weight gains for cattle range from two to four times higher on native grass species than on fescue in the warmer months, with fewer inputs and higher drought and heat tolerance.
- If grazing or hay production is one of your primary goals, your ideal seed mix will be more heavily weighted towards native grasses such as big and little bluestem, indiagrass, eastern gamagrass, switchgrass, or any of a number of other native species shown to be high-quality forage.

- Seeding rates will be lower if you are planting specifically for wildlife. This is especially true in meadows managed for birds, since looser stand structure can provide for easier ground movement.
- For native grass hayfields, a mixture of big and little bluestem and indiagrass will mature later in the hay season than other native species, allowing for later cutting dates (in the third or fourth week of June).
- Add native forbs to meadows to attract insects, birds and



Loggerhead Shrike

Reminiscent of a mockingbird with a black mask, the Shrike is nicknamed the 'Butcher Bird' for its habit of impaling prey on thorny shrubs and barbed wire. Like a raptor packed into a songbird's body, the Shrike hunts insects, small mammals, reptiles, and occasionally birds. Once widespread, Shrikes are now fairly rare in Virginia, although the causes of their decline are poorly understood. They are most often found in grazed pastures with scattered shrubs. Have a Shrike on your property? Consider reporting it to the VA Department of Game and Inland Fisheries (804-367-1000 or dgifweb@dgif.virginia.gov) to help with current conservation efforts.

who
lives
here?



Native Grasses and Wildflowers, Bruce Jones

other wildlife. Insects are a vital source of protein for birds during the breeding season, and many insects act as pollinators.

- The loss of milkweeds is one of the top factors contributing to the recent decline of the iconic monarch butterfly. Milkweeds are the host plants for monarch caterpillars. Consider planting native milkweeds in grasslands, shrublands, or even your garden to help improve the outlook for monarch populations.

Management

Without management, grasslands will naturally transition to shrubland and eventually forest through the process known as succession. In Virginia, maintaining land as grassland requires periodic disturbance such as grazing, fire, or disking. These disturbances make it difficult for woody plants to encroach on the grassland, while maintaining the heterogenous stand structure most beneficial to grassland birds, pollinators, and other wildlife.

Ideal grassland habitat for wildlife should mimic pre-colonial conditions, which consisted of patches of grassland of different heights and stages: patches of tall grass provide nesting sites and cover, burned areas allow for better wildlife movement, and areas dominated by forbs produce desirable seeds for forage. If creating a variety of habitats is not feasible, maintaining just one of these habitats will still benefit wildlife and improve grassland health.

Grazing:

- Avoid year-round, uncontrolled grazing. Doing so degrades habitat for many wildlife species.
- Rotational grazing, in which some fields are moderately grazed and others are left idle, is the best practice for maximizing forage productivity and soil health. This is also a preferred method for controlling grass height to benefit birds nesting in introduced, cool-season grasses.
- Season-long grazing of native warm-season grasses at moderate stocking rates can help maintain the ideal grass height for nesting bird species.
- Stocking the pasture with the right number of cattle (usually about two per acre during the warmer months) will result in a grazing pattern that keeps the height of the grasses below 36 inches but above 8 inches, which is above the growing points that the grasses need for regeneration. This height range favors a number of grassland bird species.

Hay production:

While haying is not always compatible with wildlife conservation, it can remain financially viable while benefitting wildlife if certain practices are followed.

- Indiangrass and big and little bluestem are ideal species for native hayfields; they are later to mature than other native grass species and therefore will not need cutting during initial nesting times that are critical for grassland bird populations.



Upland Sandpiper, Gary Smyle

- Unlike cool-season hay meadows, native hayfields only need to be cut once per year, so they are cheaper to maintain. They should be cut above 8 inches to protect the growing points of the grasses.
- Timing of cutting is crucial for wildlife management. If nesting grassland birds are a priority, the best time to cut is early spring (March or early April), followed by late summer or early fall (August-September). Avoid cutting from mid-April through the end of July when most birds are using grasslands for nesting and brood rearing. Note that maximum hay production and bird conservation are incompatible, especially with cool season grasses such as fescue and timothy.

Prescribed fire:

Virginia's Piedmont plant communities developed in concert with burning by humans. Native Americans used fire for millennia to accomplish a number of land management goals, including the creation of wildlife habitat. Consequently, prescribed fire has myriad benefits for creating and maintaining wildlife habitat in Virginia's grasslands.

- Fire reduces woody species and maintains diverse early successional habitat, keeping the landscape open and dominated by grasses and forbs. Fire also increases the nutritive value of forage species, clears dead leaves and grass litter (allowing easy passage for ground-nesting birds), puts nutrients back into the soil, and suppresses competition from invasive species.

- Burn in the early spring (early April), before grasses green up but when trees are generally no longer dormant. If this is not possible, burn in the fall (October-November). Fall burns benefit grasslands but result in removal of good habitat for wintering sparrows and raptors.
- Prescribed burns should be planned and carried out by a certified burn manager. Consult the Virginia Department of Forestry for current Virginia fire laws, and make contact with local authorities; refer to the 'Resources' section of this guide to find organizations and agencies that can help you connect with a prescribed burn contractor.

Disking and mowing:

If none of the above is an option, consider using a combination of disking and mowing to maintain grassland for wildlife.

- Light disking in alternating strips or disking a different portion of your property each year can be useful for creating a mosaic of different stages of grassland habitat. This will also reduce turfgrass species and allow beneficial early successional species already present in your soil seed bank to germinate.
- Be aware that disking will disturb the dormant seed bed and could cause a flush of invasive plant growth. Consult your local wildlife biologist for management recommendations if exotic species begin to colonize your disked fields.
- Mowing or bush hogging once a year is effective for controlling grass height and reducing woody species encroachment. Consult with your local wildlife biologist or Private Lands Wildlife Biologist for more information on mowing times, as the timing will depend on your plant community composition and the wildlife species you are targeting for habitat creation. Mowing a field from the inside out will give wildlife an opportunity to escape.
- As with haying, mowing height should not be lower than 8 inches.

Shrublands



Bottom: Field Sparrow, Bill Hubick • Top: Prairie Warbler, USFWS

Shrubland consists of areas of scattered woody plants (less than roughly ten feet tall) interspersed with open patches of grasses and forbs. Shrublands are also referred to as early-successional habitat--open habitat that is undergoing ecological succession as it matures to forest. Examples of such habitats include regenerating clearcuts, hedgerows, thickets, powerline rights-of-way, restored strip mines, and old fields that have been abandoned and allowed to grow up into vegetation.

"Shrubland birds are among the higher conservation priorities for the Piedmont as identified by the Virginia Department of Game and Inland Fisheries in the Virginia Wildlife Action Plan."

In many cases the transitional area between grassland and forest consists of shrubby, edge habitat.

Shrubland habitats may appear unkempt, so they are frequently cleared or allowed to grow into forest, most often through neglect. The loss of this type of habitat has adversely impacted birds that are dependent on shrublands for nesting, brood rearing, feeding, and escaping predation. As a result, shrubland birds are among the higher conservation priorities for the Piedmont as identified by the Virginia Department of Game and Inland Fisheries in the Virginia Wildlife Action Plan. Among these species are Northern Bobwhite, American Woodcock, Eastern Towhee, Field Sparrow, Yellow-breasted Chat, Eastern Whip-poor-will, Brown Thrasher, and Gray Catbird. Another species, Prairie Warbler, occurs in higher relative abundance in Piedmont shrublands than in any other part of their range. Shrubby areas also provide highly valuable stop-over habitat for a large variety of neotropical songbirds, like warblers, during spring and fall migration, and wintering habitat for several species of sparrows.

Creating and Maintaining Shrubland Habitats

Size and configuration—Early-successional bird species can thrive in shrubby habitat regardless of size or configuration. This provides a great opportunity to restore and manage small, unused areas of 20 acres or less as bird habitat. Maintaining land parcels larger than 20 acres as shrubland can be difficult. Old fields between 20 and 100 acres might best be managed for birds as grassland, while those larger than 100 acres could be allowed to grow into forest. However, these management recommendations are both landscape and context dependent. For example, if a patch of land that is smaller than 20 acres is adjacent to a large forest tract, it may be more beneficial for wildlife to convert it to forest, thus creating a larger area of intact forest. On the other hand, there are some forest birds whose young use nearby shrubby habitats shortly after coming off the nest. Before making a final decision, consult a wildlife management professional.

Establishment and Management



Creating shrubland habitat from forest requires aggressive management, which may include stump removal, planting, mowing, and herbicide application for a few years to allow the appropriate vegetation to become established. Converting a grassy area into shrubland habitat is easier, and typically involves tree and shrub planting, and weed control. Once created, shrublands require management to prevent them from succeeding into forest.

- Establish hedgerows at the edge of fields when possible, as these are key areas for birds.
- Hedgerows should be as wide as possible; benefits greatly increase at widths of 35 feet or more.
- A diverse mix of native, fruit, or nut-bearing shrubs and small trees is optimal for supporting a unique assemblage of shrubland-adapted birds. Visit the 'Resources' section for suggested references on plant species selection.
- Maintenance of existing shrublands requires periodic disturbance such as burning, mowing, grazing, selective removal of trees, and where necessary, herbicide use. Invasive plant species can gain a foothold in shrublands very easily; assessing your shrubland for invasive plant

encroachment on a yearly basis is important.

- No maintenance should occur from mid-April through August when birds are nesting and raising young.
- Burning should be done in the early spring (early April) when trees are generally no longer dormant. If this is not possible, burn in the fall (October-November).
- Prescribed burns should be planned and carried out by a certified burn manager. Consult the Virginia Department of Forestry for current Virginia fire laws, and make contact with local authorities; refer to the 'Resources' section of this guide to find organizations and agencies that can help you connect with a prescribed burn contractor.
- Timing the management of established shrublands depends greatly on size, species composition, invasive prevalence, and the current state of succession. Small patches that consist primarily of forbs, grasses, and shrubs will need to be managed every 2-4 years. Established shrubland habitats usually only need management about every 5 years.



Yellow-breasted Chat

As the largest member of the wood-warbler family in the United States, the Chat does not look like a warbler and certainly does not sound like one; the aptly-named Chat appears to be having a long, loud conversation with itself. The Chat is associated with dense, shrubby habitats, which makes it easier to detect by ear than by eye, despite its white spectacles and bright, lemon-yellow throat and breast. Look for breeding Chats in your area between May and July; they spend the winter months in Mexico and Central America. Although still fairly common, over 60% of the Chat's population in Virginia has been lost since the mid-1960s, most likely due to loss of habitat.

who lives here?

Yellow Breasted Chat, Dick Rowe



Forest, Mike Parr

Forests

The Virginia Piedmont supports deciduous hardwood forests, coniferous forests, and mixed conifer-hardwood forests. Oak, maple, and hickory species are predominant in Piedmont hardwood forests. Tulip poplar, beech, red maple, and sweetgum are also present in the overstory. Loblolly and Virginia pine are the primary species in pine forests, along with smaller numbers of shortleaf, white, and pitch pine.

Although European settlers cleared a large extent of Virginia forest, the amount of forest began increasing in the 1940s following broad declines in agricultural production. Then in the early 1990s, Virginia's forests began declining once again due to urbanization and development.

Bird populations in forests increase in density and diversity as the forest gets older, reaching a maximum in forests exceeding 100 years of age. Older forests also tend to support more dead trees or snags, which are important habitat components for many cavity nesting birds and for the approximately eight bat species that breed in the Virginia Piedmont. Woodpeckers excavate cavities for nesting and roosting in dead and decaying snags, which can eventually be used by secondary cavity nesters such as Wood Duck, Prothonotary Warbler, and Great Crested Flycatcher; none of these species is able to excavate its own nest cavities.



Left: Black-and-white Warbler, Richard Crook
Right: Scarlet Tanager, Kelly Colgan Azar

The hardwood forests of the mid-Atlantic Piedmont are the heart of the breeding range for species including but not limited to the Wood Thrush, Scarlet Tanager, Acadian Flycatcher, and Eastern Wood-Pewee. Other species found in Piedmont hardwood forests include the Kentucky Warbler, Worm-eating Warbler, Barred Owl, Red-headed Woodpecker, and Cooper's Hawk. Open pine forests can support Brown-headed Nuthatch, Whip-poor-will, and Prairie Warbler.

Creating and Maintaining Forested Habitats

Size and configuration—Many forest interior bird species require large forest tracts for successful breeding, even though their individual territories may be relatively small. This is because predation rates on bird eggs and young are much higher closer to forest edges. Larger tracts have a

higher proportion of interior habitat. Smaller tracts, however, have larger amounts of edge relative to interior habitat. Unfortunately, most of the forested land on private property in Virginia consists of highly fragmented small- or medium-sized tracts.

While bigger is usually better, reforesting smaller tracts can be valuable for stop-over habitat for migrating birds and also for connecting forest patches. Minimizing edge in smaller forested tracts helps to reduce predation; tracts that are circular or square in shape are preferable over long and narrow tracts. When an option, consider expanding existing forest tracts, particularly if it increases the amount of forest interior (defined as occurring deeper than 330 feet from the forest edge). Locate new roads and utility lines around the forest and maintain a closed canopy over existing roads.

Restoration



Left: Barred Owl, Trish Hartmann
Right: Pileated Woodpecker, Bruce Jones

- Consult with a forester in order to determine which type of forest your land supported historically and/or what type of forest best fits into the surrounding landscape. Be sure to establish a forest type that can be supported by the soil and climate in your area.
- Ask the forester to produce a diverse plant list so you can attract different species of wildlife.
- Deer can decimate newly planted seedlings, so fence out deer from new plantings or consider using tree shelters.

Management

- Livestock should be fenced out of forest stands.
- Monitor regenerating forests for invasive species, which can take over in as little as a year if not controlled.
- Forests with more structural complexity support a greater variety of bird species.
- Promote native ground cover and understory plants to ensure the best habitat structure for birds. A forest that has

varying layers of vegetation (herbaceous layer, shrub layer, sapling layer, and canopy) will provide habitat for the greatest diversity of bird species.

- Creating coarse, woody debris piles in a forest provides habitat for some birds as well as small mammals, amphibians, and reptiles. Dead trees, limbs, and litter on the forest floor also provide cover and a source of invertebrate food.
- Standing dead trees provide foraging sites for woodpeckers and natural cavities for nesting. Aim for at least four standing dead trees per acre.

Special Considerations—Hardwood Forests

- Thin young stands every three to ten years to remove weak, poor quality, or suppressed trees. This allows more growing space for the remaining healthy trees and sunlight penetration that benefits mid- and understory plants.
- Periodic thinning also helps reduce the risk of insect infestations, disease, and



Wood Thrush

A cousin of the familiar American Robin, the Wood Thrush lights up forests and woodlots with its mysterious, ethereal song. It forages on the ground, probing for insects and spiders among the leaf litter. Although it is still fairly common in the Virginia Piedmont, Wood Thrush populations continue to decline in the Commonwealth and across its broader breeding range. These declines may be driven by habitat loss and fragmentation on its breeding grounds in the eastern U.S. or on its wintering grounds in southern Mexico and Central America.

who
lives
here?

Wood Thrush, Kelly Colgan Azar



Left: Yellow-throated Warbler, Big Dipper 2
Right: Red-eyed Vireo, Kelly Colgan Azar

catastrophic fires.

- Thinning that preserves mast-producing trees and seed-producing shrubs helps sustain songbirds, deer, black bear, Wild Turkey, and small mammals through the winter months.
- Girdling a tree allows the tree to die while standing. A shallow cut is made into the cambium, around the entire circumference of the tree. Girdle some large but malformed or damaged trees to create snags for nesting and perching. Try to select trees that already have some decay to accelerate cavity formation.

Special Considerations— Pine Forests

- Loblolly and shortleaf pine stands are planted at an initial density of 400-450 trees per acre (TPA) for timber production. Consider planting at 300-350 TPA for improved wildlife value. This will increase the amount of sunlight that can penetrate through to the forest floor. Increased sunlight promotes plant growth, thus enhancing insect activity and resulting in a greater number of bird species.
- To enhance wildlife values further, consider shortleaf pine instead of loblolly. Shortleaf was native to many parts of the Piedmont that have since been planted in loblolly pine.
- Add a few outer rows or clumps of shrubs to enhance the array of birds using the area.
- Young pine stands are often densely stocked, sometimes exceeding 2,000 TPA. These stands will benefit from a precommercial thin down to 10 foot x 10 foot spacing. Young pine stands can be outcompeted by hardwood species. If your goal is to maintain a pine stand, use prescribed burns or selective herbicide treatments targeted specifically at hardwoods. Take care to not eliminate ground cover and understory plants.
- Thinning benefits wildlife and is also economically beneficial, resulting in increased growth in diameter and volume of timber.
- To significantly increase bird diversity, 15 to 20 year old stands should be thinned to 150 to 175 TPA. This allows at least 50% of the ground to have sunlight at noon.
- A second thinning should be considered as the pine canopy again closes, typically at about ten years after the first thinning. Thin to 85-100 TPA for a stand of large pines that is attractive to wildlife and financially profitable. Thin as early as economically feasible.
- Conduct a burn of the entire thinned stand roughly a year post-thin. After this initial burn, at least one third of the acreage should be burned every year to control hardwood establishment.
- Prescribed burning removes excess logging debris that could be a fire hazard, and stimulates herbaceous growth, which provides excellent habitat for turkey poults and quail chicks.
- Herbaceous growth responds best to burning in early spring. If this is not possible, burn in the fall after birds have nested.
- Burning requires skill, planning, and experience. Safety and compliance with burn laws is critical. A certified burn manager and the Virginia Department of Forestry (DOF) should be consulted before any burn is considered. Local authorities should be notified of any prescribed burn activities. Virginia fire laws can be found on the DOF website. The 'Resources' section contains references that can direct you to contractors who carry out prescribed burns in Virginia.



Pine savanna, Charlotte County, Marc Puckett

Savannas: A Special Case

Vast acreages of pre-colonial Virginia were once covered by savanna, a fire-dependent ecosystem that blended a sparse forest overstory with an open prairie-like understory. These savannas were maintained by frequent surface fires, originating both from lightning and from intentional burning by Native Americans. A host of species such as the Brown-headed Nuthatch, Bachman's Sparrow, and southeastern fox squirrel have a strong association with pine savannas. Some forest birds, such as the Red-headed Woodpecker, and early-successional birds, such as Prairie Warbler, also do particularly well in savannas.

While the most well-known Virginia savannas were the 1 million acres of longleaf pine in southeastern Virginia (mostly southeast of Petersburg), the earliest historical accounts also describe extensive savannas along the western Piedmont into the Blue Ridge foothills and along the major Piedmont river corridors. These savannas were a composite of

fire-tolerant oak, pine, and hickory species. Today, so few oak savannas remain that they have been listed as one of the most endangered ecosystems in North America; pine savannas have experienced a similar decline. In both cases, this is largely a result of the exclusion of fire from these ecosystems, altered forestry management practices, and colonial-era deforestation that supplied burgeoning U.S. timber industries.

Savannas may be managed for both habitat creation and timber production goals. For example, a loblolly plantation thinned after 16 years to 150-175 trees per acre will thrive with a regular prescribed fire regime, producing both useful timber and early successional habitat that birds such as bobwhite prefer.

Savanna Establishment/Restoration

- Undertaking savanna establishment or restoration involves a commitment to the regular use of prescribed burning, typically every two

or three years. The goal is a scattered stand of trees with a grassy/herbaceous groundcover. This habitat structure provides trees for nesting and perching, and an open and diverse herbaceous layer for foraging and nesting. It also provides continuous, light vegetative fuel which supports frequent fire which, in turn, is capable of controlling woody species invasion.

- While savanna creation/restoration can begin with planting trees in field settings, it is more quickly and easily accomplished by thinning in established forest stands. Pine thinning (see 'Special Considerations - Pine Forests' in the 'Forests' section) will produce a savanna stand with an open canopy. However, reducing the TPA even further will produce better ground cover. A third thinning will most likely be required to maintain more than 50% sunlight on the forest floor.
- Creating and maintaining



Left: Brown-headed Nuthatch, Bill Hubick
Center: Prairie Warbler, Bill Hubick
Right: Red-headed Woodpecker, Greg Lavaty



Left: Prescribed burning, David Stephens, Bugwood.org
Right: Oak savanna, Amelia Wildlife Management Area, Marc Puckett

herbaceous ground cover requires regular burning. The initial post-thin burn is usually the most difficult, as you have to contend with logging slash (the woody debris leftover after thinning).

- In order to promote a diversity of herbaceous plants and to better control unwanted hardwood species, it is recommended that every other prescribed burn be carried out in the growing season (April-August), while all other burns can occur during the dormant season (January-March). Varying the burn season can be beneficial for promoting plant species diversity and wildlife habitat.
- Growing season burns are much more effective at controlling woody plants. However, burning during the growing season can be more challenging than during the dormant season, and can be dangerous for breeding wildlife. Talk to a burn manager and a biologist to assess the need for and logistics of a growing season burn before undertaking it. It may require additional precautions.
- Herbaceous ground cover is critical to a fully functioning savanna. The ground layer may be slow to establish, but prescribed burning will usually yield a surprising array of native plants that have been either lying dormant under the shade of a well-stocked forest,

or which rapidly colonize an area that has been thinned and burned. Again, prescribed burning requires expertise, planning, and suitable weather. Consult with the Virginia Department of Forestry prior to burning.

- Sometimes a diverse ground cover does not materialize, in which case it may be necessary to augment the developing savanna by seeding the native plants appropriate for your site and management goals. Consider grasses such as wild rye, indiagrass, little bluestem, broomsedge, and bottlebrush grass, as well as wildflowers such as partridge pea, wild senna, goat's rue, beggar lice, black-eyed susan, narrow-leaf mountain mint, and grass-leaf blazing star.
- Landowners may want to consider forest types other than loblolly pine as likely settings for savanna restoration. Historically, shortleaf pine and oak/hickory dominated hardwood savannas are likely to have been the preeminent community types within large areas of the Piedmont. If restored, they could yield high wildlife habitat values and benefits for landowners.
- The Virginia Department of Game and Inland Fisheries has an ongoing experiment at the Amelia Wildlife Management Area to determine the most efficient method of restoring

hardwood savanna. In Halifax County, the Virginia DCR is restoring shortleaf pine and hardwood savannas at the Difficult Creek Natural Area Preserve.



Eastern Whip-poor-will

Perfectly camouflaged against the forest floor or on a horizontal tree limb during the daytime, the Whip-poor-will is known for its loud, incessant, territorial call given on bright moonlight nights during the summer. Whip-poor-wills breed in the leaf litter of hardwood/mixed pine-hardwood forests with open understories, such as savannas. They forage on insects at dusk, dawn, and by the light of the moon. They spend the winter south of Virginia along the Atlantic and Gulf Coasts and into Mexico and Central America. Conversion of habitat to pasture and crops, urbanization, and fire suppression leading to dense understories are contributing to the bird's decline.

who
lives
here?

Eastern Whip-poor-will, Dick Rowe

Wetlands & Riparian

A variety of habitats in the Virginia Piedmont are associated with water. These include vegetated areas along river and stream banks (also known as riparian areas), natural wetlands, and wetlands and other habitats associated with human-created water features such as agricultural waterways and farm ponds. Among the many wetland types are marshes with emergent vegetation such as cattails, grasses, and reeds; forested wetlands (also known as swamps); seeps and springs; wet meadows; and seasonal wetlands known as vernal pools. Wetlands can also form as a result

of beaver activity. In addition to providing specialized wildlife habitat, wetlands perform valuable ecological functions like slowing flood waters, reducing erosion, and filtering sediments. Vegetated riparian areas likewise provide habitat for birds and other wildlife, while also slowing sedimentation, regulating water temperature, and contributing to the food base that supports wildlife species.

The ecological importance of wetland habitats is underappreciated and wetlands are sometimes viewed as wasted or useless areas. Consequently, wetlands are often converted to other land uses, which make them one of the habitats most vulnerable to loss. According to the Environmental Protection Agency, approximately 40% of Virginia's wetlands have been lost since the late 1700s. Vegetated riparian areas have also suffered from conversion to other land uses. Many non-game migratory bird species that are threatened or declining depend on inland freshwater habitats for at least part of their life cycle. These include a number of warblers associated with forested riparian areas, such as Northern Parula, Kentucky Warbler, and Louisiana Waterthrush; this last species has a large portion of its breeding population in the Virginia Piedmont. Bird species associated with Piedmont wetland habitat include Green Heron, Great Blue Heron, Prothonotary Warbler, King Rail, Least Bittern, and Pied-billed Grebe. Migrating shorebirds, wintering and breeding waterfowl, and other breeding rails and wading birds also benefit from well-managed wetlands.

Because of their value and their declining status, wetlands are protected by state and federal laws, which need to be considered when managing these sensitive habitats. When modifying a wetland, you must contact the Virginia Department of Environmental Quality (www.deq.virginia.gov) and the Army Corps of Engineers (www.usace.army.mil) for permitting information.

Creating and Maintaining Wetlands and Riparian Areas

The sections that follow include specific management recommendations pertaining to particular habitat types.



Bottom: Northern Parula, Dick Rowe • Top: Green Heron, Amy Johnson



However, there are general guiding principles that management of all these habitats have in common:

- Maintain a buffer of native vegetation. A buffer is a vegetated strip abutting a water feature which helps protect that waterbody from impacts from adjacent land uses. Using or maintaining native vegetation that is adapted to the local landscape and climate is ideal. Doing so allows the use of fewer fertilizers and pesticides, and helps maintain natural ecosystem function.
- Prevent the introduction and spread of non-native, invasive plant species, and work to control them where they are already established. Invasive plants out-compete native vegetation, can spread widely, and can be difficult to control once established. They also often form monocultures which reduce native plant diversity and, as a result, the diversity of wildlife. Monitoring for non-native invasives along streams and rivers is particularly important in order to avoid the spread of seeds further downstream.

- Limit or avoid the use of pesticides and other chemicals in the vicinity of wetlands or water bodies. Avoid storing chemicals near water.
- Exclude livestock from areas in and around water whenever possible in order to decrease contamination, prevent soil erosion, and protect overall water quality.

Riparian Areas

Establishing a riparian buffer of woody vegetation is one of the best ways to protect water quality, while also providing additional wildlife habitat. Riparian buffers protect adjacent waters from sedimentation, the most prevalent form of stream pollution, by slowing the runoff from fields and other lands, and allowing sediments to deposit in uplands before reaching a river or stream. Riparian vegetation also shades streams, and thus maintains cooler water temperatures which benefit fish and other aquatic life that are the basis of the aquatic food web. Leaves and small twigs that fall from surrounding vegetation into streams and rivers are also critical to the maintenance of aquatic food webs, as they are consumed by many invertebrate species.

Creating a Riparian Buffer

- Riparian buffers should be at least 100 feet wide on each side of a river or stream in order to filter runoff, ensure flood protection, and provide habitat for birds and other wildlife. If this is not possible, strive to maintain a buffer of at least 35 feet so as to retain some degree of these benefits.
- If fescue or other competitive ground covers are present, it is recommended that they be removed prior to tree planting to reduce competition for resources. If using herbicides, be sure to use those specifically made for use near aquatic environments.
- After planting trees, seeding the ground with a complementary native ground cover or with understory shrubs helps to increase the buffer's wildlife value and prevent erosion.
- The goal for a successful riparian buffer is to have 70% canopy closure in 10 years. In order to accomplish this, plant trees within the buffer at 400 trees/acre, unless there is a good native seed source to



compensate for sapling mortality. Be sure to select native tree species that are appropriate for the site conditions. The Virginia Department of Forestry or Virginia Department of Game and Inland Fisheries staff can help you plan out the species mix for your buffer.

Managing a Riparian Buffer

- Control invasive plant species within the buffer. Invasive plant leaves and debris are not readily consumed by the invertebrates in aquatic environments. Invasives often outcompete native vegetation and offer little value to other wildlife species.
- Mowing is incompatible with the establishment of woody or forested riparian buffers. However, if mowing is necessary, it should take place between mid-November and mid-March.
- Protecting new seedlings with tree shelters is recommended. Without tree shelters, there is a 70% chance of mortality; with tree shelters, that figure decreases to 30%. Four foot shelters are preferred over two foot shelters, and have been shown to increase tree survivorship by 10%. The Virginia Department of Forestry can provide guidance on tree shelter installation, maintenance, and eventual removal.

- Note that tree shelters can cause mortality in birds that become trapped in shelters and have no way to escape. Consult with a professional for recommendations on how to reduce bird mortality.
- Fence riparian buffers to keep out livestock, which can cause stream bank erosion, consume vegetation, and degrade water quality.

Wetlands

Wetlands are fragile ecosystems that offer many benefits to both wildlife and humans. Protection and preservation of wetlands is of primary importance, and is best accomplished by avoiding disturbance. However, there are many options for enhancing and even restoring these ecologically-rich areas. Because wetland management is complex and specific to the type of wetland involved, it is best to consult with a professional before attempting any work. Biologists with the following organizations can be of help: the Virginia Department of Game and Inland Fisheries, The Nature Conservancy, the Virginia Natural Heritage Program, the Natural Resources Conservation Service, Ducks Unlimited, or an environmental consulting firm that specializes in wetland protection and restoration. While addressing the various types of wetlands is beyond the scope of this guide, recommendations are given for vernal pools as they are unique but also widespread.

Vernal Pools

Vernal pools are a type of wetland that consist of depressions in the soil that hold water for part of the year. They can be found in both open areas and woodlands. In Virginia they typically fill with water during the fall and winter, hold water through the spring, and dry up in the summer. Sources of water in vernal pools can include rainfall, melting snow, seasonal flooding, and rising groundwater. Because they are not connected to more permanent sources of water

such as streams, vernal pools do not hold breeding fish populations. The absence of predatory fish makes vernal pools important breeding sites for a variety of frogs, salamanders, and fairy shrimp.

- Because of their seasonal nature and because they can be relatively small, vernal pools may be difficult to identify and easy to overlook. This makes them vulnerable to being filled, drained, and polluted, or to the surrounding habitat being cleared. Vernal pools can be identified by documenting the presence of particular species that rely on them exclusively for breeding. Biologists with



Belted Kingfisher

Unmistakable through its harsh rattling call, the Kingfisher is also conspicuous in flight and easily identified by its large bill and blocky, crested head. The only Kingfisher found east of the Mississippi, this species is named for the rusty 'belt' that distinguishes the female from the male. Primarily a fish-eater, the Kingfisher can be found year-round across the Commonwealth along rivers, streams, lakes and ponds. It nests in burrows that it excavates where it can find suitable vertical earth exposures, including riverbanks, ditches, road cuts, landfills and sand pits. The causes of its decline are unknown, but the Virginia population seems to be faring better in the past dozen years.

who lives here?

The Nature Conservancy, the Department of Conservation and Recreation's Natural Heritage Program, and Virginia Department of Game and Inland Fisheries can help with vernal pool identification. Once a vernal pool has been identified, protecting it from year-round disturbance is critical in order to ensure its value to breeding amphibians and to other wildlife.

- Maintenance of a vegetated buffer around vernal pools is critical to their persistence. Surrounding vegetation protects vernal pools much like riparian buffers protect more permanent bodies of water. In addition, the amphibians breeding in vernal pools live out most of their annual life cycle in the surrounding uplands; these uplands are as necessary for their survival as vernal pools are for their ability to breed.

Farm ponds

- When digging ponds, create a shallow gradient that provides both vegetated borders and open mudflats. This will benefit waterfowl, rails, herons, and shorebirds.
- Avoid surrounding ponds with lawn grass and instead focus on native vegetation. Prevent livestock from grazing in these areas.

- Farm pond buffers should be at least 50 feet wide. They should include vegetation that decreases in height as one transitions from upland areas to the pond itself. This will provide the broadest benefits to birds. If this size buffer is not possible, strive for a buffer of at least 20 feet.

Agricultural waterways

- Allow agricultural waterways to grow grassy strips. This will limit transportation of sediment and agricultural runoff (fertilizers and pesticides) to surrounding lakes and streams. These strips should be as wide as possible, but a minimum of 35 feet in width. Strips that are at least 150 feet wide can provide habitat for some bird species.
- Maintain grassy strips by mowing or disking occasionally, but do not graze them, as this will eliminate their ability to slow water flow.
- Grassy strips should not be disturbed from April to August when most birds are nesting.
- Many herbicides and insecticides are toxic to aquatic life. In addition to maintaining buffer strips, avoid applying insecticides within 20 feet of the water's edge. If using herbicides, be sure to use those specifically made for use near aquatic environments.



Freshwater wetland, Briery Creek Wildlife Management Area, Dwight Dyke



Yard, flickr.com

Backyard & Suburban Habitat

Although the Piedmont is generally viewed as a pastoral landscape, suburban and urban development are increasing. Suburban areas tend to emphasize lawns and non-native ornamental plants, which have limited value as avian habitat. However, if managed properly, suburban backyards can offer benefits to many species. By adding native plants, curtailing pesticide use, and reducing the lawn footprint, developed areas can provide important food and nesting sites for many birds and pollinators.

Creating bird habitat in your yard

- If you have the ability to plan the structures in your lot, place them so that you can maximize the size of natural habitat blocks.
- Plant native plants! Native plants are the building blocks of ecosystems. By using natives, you can re-establish food webs in your own backyard. Insects are critical food for young birds, and native plants are important hosts for these insect populations.
- Avoid creating a manicured, park-like yard that provides habitat for only a few of the more common wildlife species.
- Creating a native hedgerow or thicket is a great way to attract a greater diversity of birds. Intersperse and mix native shrubs, hedges, and thickets in your yard to create habitat islands and corridors.
- Select a variety of native shrub and tree species in order to provide both cover and food sources year round. Be sure to include a native evergreen like winterberry holly, for example, that provides an important food source for birds during the winter months.
- If your yard abuts forest, consider “softening the edge” of where your woodlot meets your yard. Transitional habitat is crucial to many bird species. Plant a variety of native tree and shrub species of successional height along your forest edge to increase habitat.
- Place water sources in the form of bird baths or small pools around your yard, but remember to empty and refill these every two days to discourage mosquitoes and the spread of mosquito-borne diseases such as West Nile virus.
- If your yard includes a stream, allow the vegetation to grow up around the edges or plant the banks with native vegetation rather than mowing.
- Minimize the use of fertilizers and pesticides that can harm wetlands and streams as far away as the Chesapeake Bay. Using native plants that are best adapted to growing in local conditions will minimize the need for these chemicals.
- Leave dead trees and snags in your yard as long as they are not a safety risk. The dead and decaying wood provides nesting cavities and



House Wren

Highly energetic and with a bubbly, ebullient song, the aptly-named House Wren is equally at home in suburban yards as it is in rural settings, if habitat conditions are right. Habitat includes open, shrubby areas in proximity to trees or woodlots. The House Wren will readily nest inside nest boxes and sheltered crevices in and around buildings, as well as in natural tree cavities. In the summer they are most common in the northern Virginia Piedmont and near the Blue Ridge Mountains; in the winter they are rare in the region. Perhaps because of their ability to exploit partially-developed habitats and tolerate human activity, House Wrens are faring better in Virginia than the other featured species.

House Wren, Ken Schneider



From Top to Bottom:
Red-bellied Woodpecker, Bill Hubick
Blue Jay, Laura Erickson, Binoculars.com
Eastern Bluebird, James Ownby
American Goldfinch, JD

attracts insects that provide food.

- Create a brush pile that will provide cover for birds and attract insects, or consider putting up nest boxes to attract breeding birds like wrens, chickadees, and bluebirds.

Additional things that you can do for birds and other wildlife

- If you choose to put out bird feeders in the winter, fill them with quality seeds like black-oil sunflower and white proso millet. Remember to clean feeders regularly to prevent disease.
- During the summer, suspended fruit will attract orioles, catbirds, and other fruit-loving birds. Beware that summer and fall bird feeders of any type may attract bears and other mammals.
- Birds can die as a result of flying into glass windows that reflect surrounding vegetation or that are otherwise not visible to them. A number of products are available to reduce bird collisions with glass, including screens, netting, films, tape, paint, decals, and stickers. Closing curtains or blinds and moving houseplants away from windows may also help. If you keep a feeder close to your house, moving it within 1.5 feet of a window can reduce the impact of collisions. Otherwise, keep bird feeders far from buildings to reduce the risk of collision.
- Keep your cat(s) indoors. Free-roaming cats are responsible for a vast number of bird deaths each year, and also kill many species of small mammals. Keeping your cat indoors can increase its lifespan by protecting it from outside hazards.
- Plant native plants that specifically attract hummingbirds. Deep set, conical shaped flowers like native azaleas, trumpet honeysuckle, cardinal flower, and bee balm are pollinated by the Ruby-throated Hummingbird's long beak and

tongue. Hummingbirds are also attracted to feeders.

- Select native plants that act as host species for butterflies. For example, *Antennaria neglecta*, or pussy toes, is the host plant for the American Painted Lady butterfly. To learn more about butterfly conservation and host plants, visit the Xerces Society's website.
- Native bees, like blue orchard mason bees, bumblebees, and leaf cutter bees, are important pollinators, so consider installing a native bee house in your yard. Most native bees are not colonial like non-native honeybees. Some species create solitary nests in tube-like structures such as dead reeds, standing stems, and hollow tree branches. You can create a simple nesting structure for them by bundling a handful of bamboo shoots together and placing them in a safe spot in your yard, or by simply leaving dead standing flower stems. There are also more elaborate and stand-alone bee houses available for sale on the internet and at home and garden stores. For bumblebees and other native bees that nest in the ground, leave bare spots of earth in your flower beds and garden for nesting opportunities.

Improving your neighborhood for birds

- Participate in or help organize park and stream restoration projects in your neighborhood, and encourage the use of native vegetation in landscaping projects.
- Help schools to transform part of their land into bird habitat. It will require less maintenance than closely cropped grass, which saves money and helps reduce greenhouse gas emissions, while also providing a unique learning opportunity for young students.
- Contact your local Virginia Native Plant Society Chapter to learn about potential projects and networking opportunities.



Purple Loosestrife, pixabay.com

Invasive Exotics

"It is much easier to control a few rogue plants than to fight them after they have become established."



Bottom: Johnson grass, Chris Evans, River to River CWMA, Bugwood.org • Top: Garlic mustard, Wisconsin DNR

While some non-native species are aesthetically pleasing, many introduced species can cause considerable harm to natural ecosystems. Most of our popular garden plants are exotic, yet not invasive, which makes them relatively harmless. However, invasive exotics can escape the garden and quickly spread throughout your property as they out-compete native vegetation.

Invasive exotic plant infestations on your property should be addressed on a yearly basis. If allowed to gain a foothold, they can displace desirable native plant species in as little as a two to three years. Non-native invasive plant infestations can ultimately disrupt ecosystem processes and decrease biodiversity. Invasive plants thrive in areas of frequent disturbance like roadsides, field borders, and forest openings. If you are undertaking a management project, you will need to include an invasive plant control plan along with your other management strategies.

There are nearly 100 plant species that the Virginia

Natural Heritage program recognizes as alien invasive plants in Virginia. For a more thorough discussion and a listing of invasive species, visit the Virginia Natural Heritage Program website.

It is much easier to control a few rogue plants than to fight them after they have become established. Familiarize yourself with some of the more common invasive species, be vigilant about checking for their presence on your land, and quickly move to control invasive species when you find them. Almost all invasive plants have a recommended control method, and a specific time of year when the control should occur. The most common methods of control are pulling, burning, cutting, and herbicide use, and sometimes a combination of two more of these methods is needed. Selective herbicides are usually better choices than broad-spectrum varieties. Your county Cooperative Extension agent or the Virginia Department of Forestry can assist with information on control of specific pests.



Exotics in Agricultural Fields

- Each crop field has its own unique “seed bank” that has accumulated over the years. Minimizing tillage brings fewer seeds to the surface. Look for invasives in adjacent field borders, fence lines, and pastures before starting a new planting.
- Johnsongrass grows in dense clumps and can become easily established along the edges of crop fields. Preventing seed dispersal by eliminating the plant before it goes to seed and stopping the spread of rhizomes is key to controlling infestations.
- *Ailanthus altissima*, or Tree of Heaven, is another field invader. This tree alters the soil chemistry, which prevents other plants from growing. Its woody shoots are often found on the edges of fields, so killing the *Ailanthus* in these transitional areas before initiating any planting will make future maintenance a lot easier. Tree of Heaven reproduces by prolific seeding, and also root suckering and re-sprouting, which can accelerate if a parent tree is cut down but not treated with herbicide. Treating Tree of Heaven with an herbicide stem injection in the summer-fall or basal spraying in February- April has been shown to be the most effective means of control.
- Most woody invasive shrubs can be controlled by cutting the shrub at the stump and “painting” on a selective herbicide. Painting the herbicide directly onto the stump minimizes the risk of spraying other plants.
- Mowing can knock back invasive plants for a growing season. However, it is not a very effective means of control because it keeps the root system intact.
- Spot spraying, burning, pulling, and mowing invasive grasses and legumes are all fairly effective if used on the correct species or in conjunction with each other. Once you have identified the invasive, research the best methods to control it.
- Exotic thistles can be particularly troublesome in newly established grasslands since they are difficult to remove and spread easily. Their seeds are dispersed by wind, so check for thistle presence in neighboring fields before initiating new plantings.

Exotics in Grasslands

- Virginia’s grasslands are host to numerous alien plant species. Autumn olive, *Sericea lespedeza*, perilla mint, multiflora rose, exotic thistles, Japanese barberry, Johnsongrass, and Tree of Heaven are just a few.
- While bermudagrass may offer some value for grazing, it spreads easily and is difficult to get rid of once established.

Exotics in Shrublands

- Shrubby areas are very susceptible to take over by invasive species. Seeds of invasive species generally establish quickly in shrubby areas that are undergoing succession. Furthermore, young invasive plants often outcompete young natives for space. The regular disturbance required to maintain shrublands sometimes encourages the spread of invasive species.
- Hedgerow maintenance is particularly important because edge habitat is very prone to take over by invasive species like kudzu, multiflora rose, oriental bittersweet, Japanese honeysuckle, English ivy, and autumn olive.

Exotics in Forests

- Invasive plants can take hold in forests because landowners often do not routinely evaluate forest condition. Monitor forests annually for presence of invasive exotics. Pay particular attention to the forest floor for signs of invasives, including Japanese stiltgrass and garlic mustard. These plants are easily hand pulled, but are prolific seeders, so removing



From Top to Bottom: Canada thistle, Wisconsin DNR • Autumn olive, IPANE (Invasive Plant Atlas of New England) • Japanese stiltgrass, Wisconsin DNR

them before they go to seed is the key to controlling them.

- Vines like kudzu and bittersweet can cause serious damage to forests by infesting and eventually collapsing entire trees. Kudzu infestations are extremely aggressive and usually require the assistance of a management professional. Other invasive vines like the non-native honeysuckle and bittersweet are most successfully controlled by using selective herbicides in the fall when other plants have gone dormant. The cut and paint method or a foliar application seem to work the best.
- Understory plants can be displaced by invading shrubs such as Japanese barberry, multiflora rose, Japanese honeysuckle, and exotic bush honeysuckles.
- Wavy leaf basket grass is a new forest invader. It resembles Japanese stiltgrass in appearance and behavior, and often grows right beside it. The plant was first discovered in the U.S. in 1996 in Maryland and has since been identified in a few places in Virginia. Since this is a new invasive species, swift identification and eradication are imperative; the public is urged to report sightings to the Virginia Department of Conservation and Recreation (DCR).

Exotics in Wetlands

- Purple loosestrife may be a beautiful plant, but it can be extremely aggressive in aquatic environments, and can form dense stands. Traditional means have not proven successful in controlling large infestations. Leaf-feeder beetles, however, have been

"Invasive plants can take hold in forests because landowners often do not routinely evaluate forest condition."

successfully used as a bio-control agent since the 1990s to manage purple loosestrife populations. Contact DCR for assistance if you think you have an infestation.

- Check boats and trailers carefully if they have been used in waters suspected of housing populations of Hydrilla or European water chestnut. These aquatic invaders can create thick mats on the surface of the water and shade out other important submerged native vegetation. They can also slow water flow and clog water pumping stations. Cleaning your boat or trailer of any vegetation will help ensure that these plants will not spread to a new water body.
- Phragmites is usually found in Tidewater wetlands, but it may occur in the eastern Piedmont. It is often found in roadside ditches along highways. Be careful of any disturbance in wet areas, as you may encourage expansion of phragmites stands. Phragmites is extremely difficult to control once it becomes established, so early detection is key.

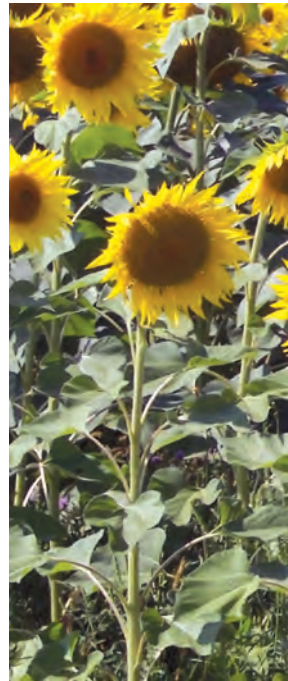


Logging slash, Marc Puckett

Biofuels and Wildlife

Biofuels include an array of fuels derived from renewable resources such as crops, grasses, and trees. At present, the vast majority of biofuels in the United States are derived from corn. In Virginia, there has been an increasing interest in producing biofuels from native feedstocks, such as wood and native grasses. Woody biomass has been especially prominent in the Virginia biofuels market during the past decade, with operations ranging from wood pellet plants to the use of sawdust to heat university buildings.

Our knowledge of the potential impacts of biofuel production on birds and other wildlife is imperfect. However, we know that benefits to wildlife are greater when using native perennial biofuel crops over annual, non-native crops. Native plants require fewer inputs (fertilizers and pesticides) and have lower production costs. They also benefit wildlife if planted as diverse mixtures of grasses and forbs in open field settings, or trees and shrubs in forested settings. From both an ecological and a wildlife perspective, the use of non-native species and of monocultures (whether grass or woody) should be avoided where possible.



From Left to Right: Soybeans, Howard F. Schwartz, Bugwood.org • Sunflowers, stock.xchng
• Little bluestem, Meadowbrook Nursery

- In keeping with the above, corn and soybean biofuel production is the most detrimental to wildlife; row crops are intensively managed monocultures that support relatively few species, and these acres have been converted from either idle or less intensive land uses which offered greater value to wildlife. If opting for row crops, refer to recommendations in the 'Agricultural Habitat' section for wildlife-friendly approaches to managing production.
- From a wildlife perspective, a preferred biofuels option is the use of native grasses; refer to the 'Grasslands' section of this guide for recommendations.
- Woody feedstocks offer an additional alternative. They can consist of slash from logging operations, poor quality trees or high-graded stands from past logging activities, invasive species that have been removed, or quick growing trees that have been purposefully planted. With careful planning and a selective harvest, you may be able to restore a degraded hardwood stand and gain a biofuel harvest at the same time. Forest management recommendations can be found in the 'Forests' section of this guide.
- Whole tree chipping harvests offer an array of opportunities to establish improved timber stands or to begin a scrub-shrub habitat. For shrubland management guidance, refer to the 'Shrubland' section of this guide.



Farm in Greene County, Katherine Vance, PEC

Resources for Landowners

There are many resources available for landowners who are interested in managing their land for wildlife. Several government agencies and non-profit organizations provide habitat planning and management advice at no cost, though they are not usually directly involved with on-the-ground implementation. Private consultants are able to carry out on-the-ground work and may also provide planning and management assistance.

Planning Assistance

- Virginia Department of Game and Inland Fisheries (VDGIF) biologists offer wildlife habitat planning and management recommendations to landowners. More information can be found at www.dgif.virginia.gov, or by calling the following offices in the Piedmont: Fredericksburg (540-899-4169), Forest (434-525-7522), and Farmville (434-392-9645).
- The Virginia Department of Forestry (VDOF) employs Area Foresters who provide a wide variety of services at the local level. VDOF also maintains a list of private foresters on its website. Visit www.dof.virginia.gov or call VDOF headquarters in Charlottesville (434-977-6555).
- The Piedmont Environmental Council's Sustainable Habitat program provides residents of the Virginia Piedmont with various resources to help improve biodiversity, water quality, and land health on their property. Staff are available to provide site visits, information on restoration practices, and can connect you to the appropriate service provider for your project. PEC also hosts numerous outreach events on land stewardship and wildlife habitat every year and coordinates many large scale land-restoration projects. Call the PEC main office in Warrenton (540-347-2334) or visit www.pecva.org.
- The Natural Resources Conservation Service (NRCS), a division of the U.S Department of Agriculture, provides conservation planning,

technical assistance, and cost-share programs. There are numerous NRCS service centers throughout the state; visit www.nrcs.usda.gov to find the one closest to you.

- Private Lands Wildlife Biologists assist in Virginia's Quail Recovery Initiative and are part of a cooperative effort involving VDGIF, NRCS, and Virginia Tech's Conservation Management Institute. Private Lands Wildlife Biologists can assist you with cost-share programs and provide assistance for landowners interested in managing their land for wildlife. They have a special focus on early successional habitat species like quail, Field Sparrows, and Prairie Warblers, among others. They can be contacted through VDGIF's website.
- A list of Certified Foresters can be found on The Society of American Foresters website, www.eforester.org.
- A list of Certified Wildlife Biologists (CWB) and Associate Wildlife Biologists (AWB) can be found on website of The Wildlife Society, the professional governing organization for wildlife biologists: www.wildlife.org.

Contractors, Vendors, & Consultants

The Piedmont Environmental Council publishes a comprehensive guide called *Go Native Go Local* which provides the residents of the Virginia Piedmont with a listing of businesses that offer products and services that promote native biodiversity. Here you can find foresters, native plant nurseries, landscape designers and architects, wildlife management consultants, and government agencies that offer products and services that can help you get started managing your land for wildlife.

A copy of *Go Native Go Local* can be downloaded for free at www.pecva.org/gonative



Cost-Share Assistance

Identifying programs designed to aid landowners in managing and protecting their property's ecological resources is an important step toward implementing on-the-ground conservation efforts. Programs that include financial incentives for landowners are known as cost-share programs.

Several federal and state financial incentive programs are managed by government agencies, such as:

- Natural Resources Conservation Service
- Virginia Department of Forestry
- Virginia Department of Conservation and Recreation
- Virginia Department of Historic Resources

Landowners can contact these agencies directly to learn more about the latest in financial assistance programs. Practitioners at these agencies may also know of additional opportunities in the Piedmont to help offset project costs.

Useful websites

pecva.org/habitat

This is the Piedmont Environmental Council's website for everything habitat. Learn about PEC's latest initiatives and find information on wildlife, plants, pollinators, water quality, and invasive species. You can also locate sources of conservation funding or schedule a site visit to your property with one of PEC's field staff.

dgif.virginia.gov

The Virginia Department of Game and Inland Fisheries website contains useful information on habitat management for quail and other wildlife; search for 'quail' or 'habitat'.

dof.virginia.gov

The Virginia Department of Forestry's website provides information on basics such as tree planting and care, programs and services, invasive species management, and conservation options for landowners, among other things. The website also offers contact information for your regional VDOF forester.

dcr.virginia.gov

Comprehensive state native plant and invasive plant lists can be found under the Natural Heritage Program section of the Virginia Department of Conservation and Recreation's website.

allaboutbirds.org

All About Birds is the Cornell Lab of Ornithology's user-friendly bird guide with life history, conservation status, and identification information for North American birds.

vnps.org

The Virginia Native Plant Society has up-to-date information on native plant sales in your area, as well as extensive resources on plants native to the Virginia Piedmont.

vaworkinglandscapes.org

Virginia Working Landscapes studies and encourages the sustainable use of Virginia's landscapes for native biodiversity through community engagement and research on the importance of restoring native habitats.

xerces.org

The Xerces Society is a non-profit organization that specializes in invertebrate conservation. The resources section on their website includes pollinator plant lists and information on pollinator conservation.

albemarle.org/nativeplants

This is a database with information on native plants in the Piedmont, their uses, and growing conditions.



Additional Reading

Many of the publications listed below are available as free online electronic documents. Due to the ever changing nature of electronic links, we recommend conducting an internet search on the title of the publication to determine whether it is available electronically.

Field Guides

Godfrey, M.A. 1997. *Southern Gateways Guides Field Guide to the Piedmont: The Natural Habitats of America's Most Lived-in Region, From New York City to Montgomery, Alabama*. University of North Carolina Press, Chapel Hill, North Carolina. 536 pp.

Miller, J.H. 2003. *Nonnative Invasive Plants of Southern Forests: a Field Guide for Identification and Control*. Revised Gen. Tech. Rep. SRS-62. Asheville, NC: USDA Forest Service, Southern Research Station. 93 pp. (Available electronically or request a printed copy by phone (828-257-4830) or email (pubrequest@fs.fed.us) and Ask for GTR-SRS-62)

Virginia Department of Forestry. 2012. *Common Native Trees of Virginia*. Charlottesville, Virginia. 128 pp.

Native Plants

Davis, J.S., R. Glaettli, A. Henley, N. McGoff, L. Murray, B. Truax, W. Cocke, and C. Vuocolo. 2015. *Piedmont Native Plants: A guide for landscapes and gardens*. In press. 127 pp.

Slattery, B.E., K. Reshetiloff, and S.M. Zwicker. 2003. *Native Plants for Wildlife Habitat and Conservation Landscaping: Chesapeake Bay Watershed*. U.S. Fish & Wildlife Service, Chesapeake Bay Field

Office, Annapolis, MD. 82 pp.

Tallamy, D.W. 2007. *Bringing Nature Home: How You Can Sustain Wildlife with Native Plants*. Timber Press, Portland, Oregon. 288 pp.

Habitat Management (general)

Biebighauser, T.R. 2002. *A Guide to Creating Vernal Ponds*. USDA Forest Service, Morehead, Kentucky. 33 pp.

Ducks Unlimited. 2005. *Wetland Habitat Management: a Guide for Landowners*. Great Lakes/ Atlantic Regional Office, Ann Arbor, Michigan. 28 pp.

Harper, C.A., G.E. Bates, M.J. Gudlin, and M.P. Hansbrough. 2004. *A Landowner's Guide to Native Warm-season Grasses in the Mid-South*. University of Tennessee, Extension PB 1746. 25 pp.

May, H.L. 2002. *Managing Forests for Fish and Wildlife*. Fish and Wildlife Habitat Management Leaflet Number 18. Natural Resources Conservation Service. 44 pp.

Oehler, J.D., D.F. Covell, S. Capel, and B. Long. 2006. *Managing Grasslands, Shrublands and Young Forests for Wildlife: A Guide for the Northeast*. The Northeast Upland Habitat Technical Committee.

Massachusetts Division of Fisheries and Wildlife. 148 pp.

Puckett, K.M., P.D. Keyser, H.L. Haney, Jr., C.L. Godfrey, S.F. Warner, and S.W. Capel. 1998. *Managing Pines for Profit and Wildlife*. Wildlife Information Publication No. 98-1. Virginia Department of Game and Inland Fisheries. 16 pp.

Virginia Department of Game and Inland Fisheries. 2014. *Habitat at Home*. 8 pp. (<http://www.dgif.virginia.gov/habitat/wild-in-the-woods/habitat-at-home.pdf>)

Zimmerman, C.B. 2010. *Urban and Suburban Meadows: Bringing Meadows to Big and Small Spaces*. Matrix Media Press. 271 pp.

Reptiles and Amphibians

Bailey, M.A., J.N. Holmes, K.A. Buhlmann, and J.C. Mitchell. 2006. *Habitat Management Guidelines for Amphibians and Reptiles of the Southeastern United States*. Partners in Amphibian and Reptile Conservation Technical Publication HMG-2, Montgomery, Alabama. 88 pp.

Mitchell J.C., A.R. Breisch, and K.A. Buhlman. 2006. *Habitat Management Guidelines for Amphibians and Reptiles of the*

Northeastern United States. Partners in Amphibian and Reptile Conservation Technical Publication HMG-3, Montgomery, Alabama. 108 pp. (to order a free copy, e-mail Andrea Chaloux at amchalou@gw.dec.state.ny.us)

Bats

Taylor, D.A.R. 2006. *Forest Management & Bats*. Bat Conservation International. 13 pp.

Pollinators

Mader, E., M. Shepherd, M. Vaughan, S. Black, and G. LeBuhn. 2011. *Attracting Native Pollinators: The Xerces Society Guide to Protecting North American Bees and Butterflies*. Storey Publishing, North Adams, Massachusetts. 372 pages.

Birds

Rosenberg, K.V., R.W. Rohrbach, Jr., S.E. Barker, J.D. Lowe, R.S. Hames, and A.A. Dhondt. 1999. *A Land Manager's Guide to Improving Habitat for Scarlet Tanagers and Other Forest-interior Birds*. The Cornell Lab of Ornithology.

Rosenberg, K.V., R.S. Hames, R.W. Rohrbach, Jr., S. Barker Swarthout, J.D. Lowe, and A.A. Dhondt. 2003. *A Land Manager's Guide to Improving Habitat for Forest Thrushes*. The Cornell Lab of Ornithology.



WWW.ABCBIRDS.ORG
540-253-5780 • 888-247-3624



WWW.PECVA.ORG
540-347-2334



WWW.DGIF.VIRGINIA.GOV
804-367-1000



Rollins Tract Parcel Map







Rollins Tract Contour Map



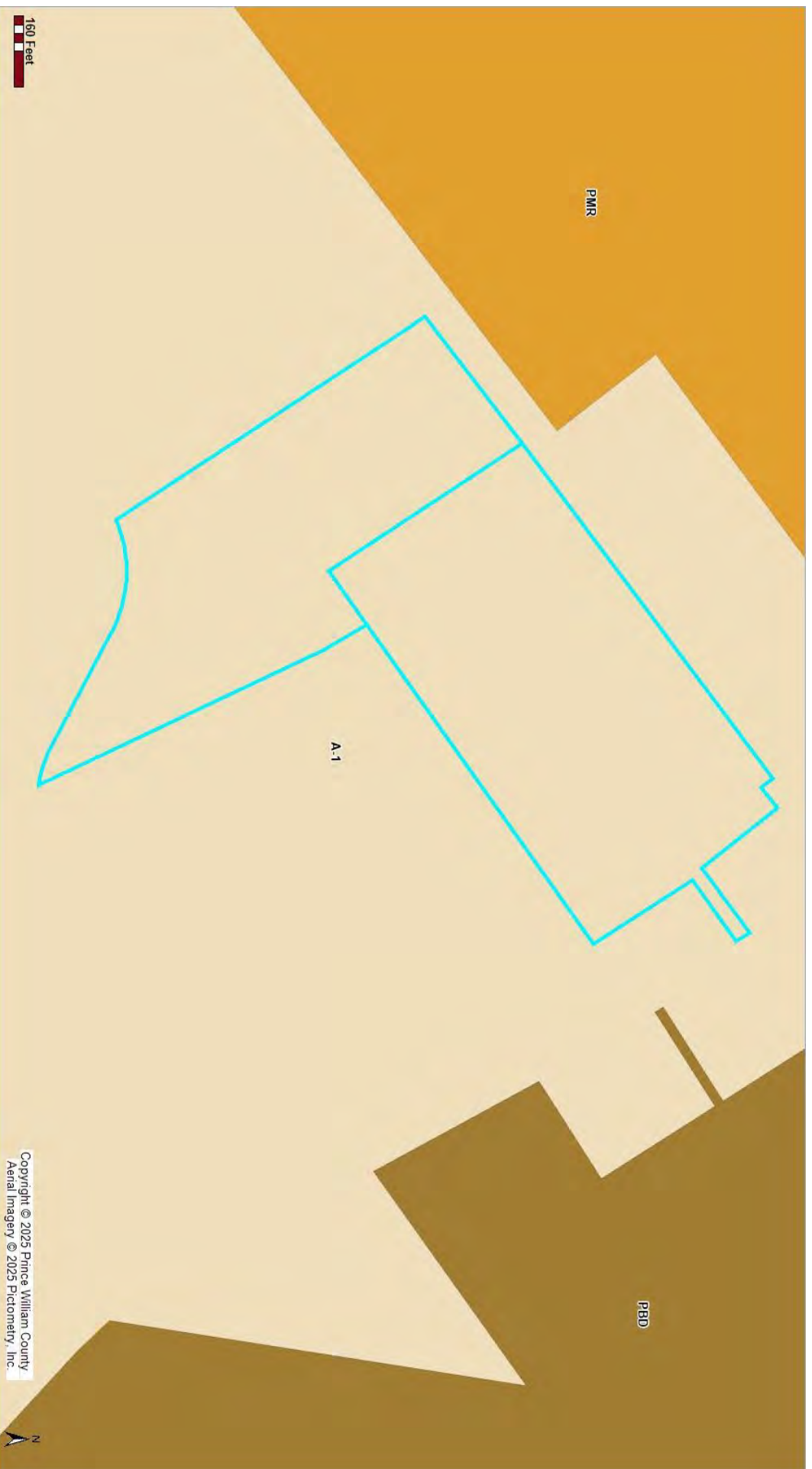
Rollins Tract Buildings Map



Rollins Tract Soils Map



Rollins Tract Zoning Map



Rollins Tract Long Range Land Use Map



Rollins Tract 1937 Aerial Imagery





1824 Bristoe Tracts Map

- Bristoe Station Battlefield Heritage Park
- Bristoe Tract Boundary
- Railroad
- Pond or Creek
- Intermittent Stream or other waterway
- 2010 Parcel Boundary

