

## Appendices, Bibliography, Preparers, & Index

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## APPENDIX A: DESCRIPTION OF RESOURCES

### ***Brawner Farm***

Near the western edge of the park, the Brawner Farm area witnessed the initial fighting in the Second Battle of Manassas. The most prominent landmark on the wartime landscape was the residence of tenant farmer John Brawner and his family. The present structure, which was likely built or added to after the Civil War, now occupies part of the site overlooking the Warrenton Turnpike (present day U.S. Route 29). The two-story structure is currently unoccupied and in poor condition. None of the farmstead's ancillary structures remain, but archeological traces dot the grounds.

Across much of the farm, evidence of historic field patterns remains, with cedar rows denoting the location of fence lines. A mixed pine and hardwood forest covers most of the once-cleared fields in the eastern portion of the farm. The historic woodlot, known variously as Brawner Woods or Gibbon's Woods, nevertheless is a discernible hardwood stand in the southeastern corner of the farm adjacent to U.S. Route 29. The location of the wartime orchard, however, is unknown, although remnants of two later orchards exist northeast and east of the house. An unimproved driveway currently provides access to the farmstead from U.S. Route 29, while the historic farm trace runs parallel to and east of the modern access road.

In a valley west of the farmstead lie the headwaters of Youngs Branch. Beyond the stream the ground rises to a clear ridge, where Confederate artillery and infantry advanced during the August 28 battle in a successful effort to force the Federals to withdraw. Northeast of the farmstead, rising ground forms a spur of Stony Ridge that served as the position of S. D. Lee's Confederate artillery on August 30. Five Civil War-era cannon, spread across the ridge crest, mark the artillery battalion's position and serve as an interpretive aid. To the east, the postwar forest growth has reduced the clear field of fire to approximately 100 yards, entirely blocking key battlefield views toward the Deep Cut and Battery Heights. To the west, meanwhile, the open fields preserve the historic vista to the Bull Run Mountains, with Hopewell Gap clearly visible and Thoroughfare Gap somewhat obscured but still discernible. This view to the

gaps provides an opportunity to interpret the Confederates' movement to the battlefield.

### ***Bull Run***

Bull Run, the principal tributary of the Occoquan River, flows along the eastern edge of the battlefield. Its steep banks and bluffs formed a natural defensive barrier for Confederate forces early in the war. Physical evidence of the Confederate defensive line survives in the form of scattered earthworks along the bluffs overlooking Bull Run. These earthworks include a shallow lunette used as an artillery position by Heaton's section of Rodger's Loudoun Artillery and rifle pits near Lewis Ford occupied by the 19th Virginia and Schaeffer's Battalion. The rugged terrain of the valley channeled troop movements to established crossing points such as Poplar Ford, Lewis Ford, and Balls Ford. Traces of the fords remain and are accessible by trail. Other stream crossings in the Sudley and Stone Bridge areas are described below.

### ***Chinn Ridge***

Southwest of the intersection of the Warrenton Turnpike and the Sudley-Manassas Road, Chinn Ridge was the scene of major fighting in both battles. In each battle, Confederate counterattacks made control of this ridge a key component of Southern success. The most important wartime feature on the ridge was the plantation residence of Benjamin T. Chinn. Known as Hazel Plain, the frame house stood two-and-a-half stories tall on a sandstone foundation at the crest of the ridge, where it overlooked the length of the ridge and the valley of Chinn Branch. Despite its exposed position on the battlefield, the house survived the war, and eventually succumbed to the ravages of time and the elements in the 20th century. In 1950 the NPS razed the house, and only the foundation and chimney bases remain intact.

In addition to the house foundation, archeological traces of the numerous ancillary structures survive on the ridge and its southeastern slope. A 1983 archeological survey identified more than a dozen features associated with the plantation, mostly in the yard and fields east-southeast of the house site. Two notable features are down slope in the valley of Chinn Branch. About 200 yards east of the house site,

the Hooe Family Cemetery is the burial ground of the family who built and owned Hazel Plain from 1809 to 1836. The headstones fell victim to vandalism in the 1950s and 60s, and none remain within the stone cemetery walls today. Meanwhile to the northeast across Chinn Branch, Chinn Spring is still evident, albeit somewhat overgrown.

Landscape patterns remain largely intact in the vicinity of the Chinn House site, with the grounds divided into unequal quarters and bordered by cedar rows marking historic fence lines. The southern grounds in particular display a high level of organization, with terraced lawns or gardens flanking the house on the west and east. Just north of the house site, the historic farm lane that bisects the grounds is now an asphalted park road giving access to VA Route 234 at the park's southern boundary. A nonhistoric park road intersects with the old road east of the house site and extends first northward along Chinn Branch and then eastward to a junction with VA Route 234. Traces of other historic roads remain in the woods west and southwest of the house site. Of particular note are the well-worn traces of Comptons Lane, which runs parallel to a modern park trail.

The only commemorative element on the Chinn Ridge landscape proper is a granite boulder bearing a bronze plaque honoring Col. Fletcher Webster, who fell leading the 12th Massachusetts at Second Manassas. The Webster Monument is about 400 yards north-northeast of the Chinn House site.

The crest of Chinn Ridge proper remains mostly clear and reflects its historic appearance, except for a postwar grove around the Webster Monument. The slopes of the ridge, however, bear considerable postwar forest growth that hinders interpretive efforts. To the west, an extensive forest covers the undulating slope of the ridge, obscuring the position of Kerns' Union battery and blocking the view of the New York monuments to the west. Recent forest growth in the Chinn Branch valley entirely obstructs the view of Henry Hill, while scattered woods on the northern extremity of the ridge conceals the historic Stone House intersection.

### ***Cundiff***

In the southwestern part of the park, the Cundiff plantation, Meadowville, was the scene of much

activity during the Second Battle of Manassas. Its position on the Warrenton Turnpike opposite the Brawner Farm placed the property in the midst of the action on August 28, and Union forces occupied the area, using the house as a temporary hospital. Union and Confederate forces skirmished in the area the following day, and on August 30, Confederate forces positioned here launched a massive counterattack.

Today, only foundations mark the site of the Cundiff dwelling at Meadowville. The original house, part of which dated to the late 18th century, did not survive the war, and a later house built on the same site in the 1940s was razed prior to NPS acquisition. The archeological features of the domestic complex also include the remains of at least one outbuilding east of the house site. A driveway provides access to the house site and roughly follows the route of the historic Meadowville Lane. South of the house site, however, no visible trace remains of the wartime farm lane.

The central portion of the plantation landscape lay mostly in open fields, with woodlots toward the periphery. However, modern forest growth covers much of the area today, blocking historic views from Stuart's Hill to the west, and covering much of the ground where Confederate forces deployed during Second Manassas. Evidence of historic field patterns exists in the form of remnant fence lines. Although a few of the extant fence lines may date to the war period, most are from the 1871 partition of Meadowville.

### ***Dogan Ridge***

Spreading northwest from the intersection of U.S. Route 29 and VA Route 234, the Dogan Ridge area was the scene of important action during both battles. During First Manassas, Union troops advancing onto the ridge threatened the Confederate line on neighboring Matthews Hill, and Northern artillery shelled Southern positions on Henry Hill from the cleared crest of the main ridgeline. At Second Manassas, the property became a staging area for Union attacks against the Confederates' Unfinished Railroad position, while the high ground again served as a key artillery position.

Beginning at the Sudley-Manassas Road opposite Matthews Hill, Dogan Ridge extends southwestward as an extension of the Matthews ridgeline. The most prominent feature on the

wartime landscape was the farmstead of John Dogan, on the southwestern portion of the ridge. Known as Rosefield, the Dogan House stood on the crest of the ridge overlooking the Warrenton Turnpike about 80 yards to the south. Built in the 1790s, the original house was one of several Carter family residences in the area until Dogan acquired the property in the 1840s. The antebellum dwelling burned during the Civil War; a new house, constructed in the 1880s, now stands on the approximate site and serves as a marker for the wartime structure.

No visible evidence exists of the farmstead's outbuildings, which lay west of the house, or of the wartime orchard to the southwest. The original farm lane does survive in part, extending as a driveway from the postwar house southeast to the Warrenton Turnpike, but the lane running northward to VA Route 234 is no longer extant. Both adjacent highways generally follow their wartime alignments, except for a section of VA Route 234 north of the main ridge. North of the ridge, the modern highway follows a new alignment immediately to the east of the well-defined bed of the original road.

Throughout much of the property, continued agricultural use has helped preserve historic vegetation patterns, with open fields predominating on the main Dogan Ridge and parallel ridgelines to the northwest. However, dense rows of cedar and scrub growth have sprung up along historic fence lines, effectively shutting off views to Henry Hill, Matthews Hill, and the Groveton area. In the northern and western areas of the Dogan farm, wood lines appear little changed from the war period. As in the 1860s, the woodlots on the periphery of the farm merge with the larger Groveton Woods that extended north and northeast along the Groveton-Sudley Road (now Featherbed Lane) and the Unfinished Railroad.

### ***Groveton***

The tiny village of Groveton sat at the junction of the Warrenton Turnpike (now U.S. Route 29) with the Groveton-Sudley Road (now Featherbed Lane). Groveton witnessed key events during each day of fighting at Second Manassas and, in early accounts of the actions, even lent its name to the engagement. Historic maps and documentary evidence place the village proper on the northwest and southwest corners of the intersection, with a tavern, wheelwright

shop, and blacksmith shop among the cluster of structures. Few traces of the crossroads community remain today, but recent structures evoke the historic setting.

The most important remnant of the Groveton area is the Lucinda Dogan House, at the northwest corner of the intersection. Part of the adjacent Dogan family plantation known as Peach Grove, the one-and-a-half story log building originally served as an overseer's house. In 1860, the structure became the Dogans' primary residence after the main plantation house burned. Veterans of Second Manassas later became welcome guests in the Dogan home, and the family participated in dedication ceremonies for the nearby New York monuments in 1906. The Prince William County Chamber of Commerce purchased the house and its immediate grounds in 1947 and donated the property to the park in 1949. NPS completed rehabilitation of the building in 1961. The house is one of only three wartime buildings within the park boundaries.

Just west of the Lucinda Dogan House and outside the park boundary, a two-story frame structure may contain the historic Dogan tavern, which stood on the site in the 1860s. No other vestige of the historic Groveton village survives, although archeological remains may exist. The tavern structure and the rest of the northwest corner of the Groveton intersection fall within the Stonewall Memory Gardens, a privately owned 84-acre landscaped cemetery.

In addition, the cemetery property contains two other historic sites related to Groveton. The Peach Grove domestic complex stood on a knoll about 350 yards northwest of the village intersection. Although nothing remains of the house, and a modern cemetery office building now occupies the approximate site, the family burial ground survives nearby and is marked by a bronze tablet on a brick base. Meanwhile, the location of the wartime Groveton School House is not certain, but the structure may have stood about 400 yards north of the intersection, just within the northeast boundary of the cemetery property. Most of the remainder of the Peach Grove property falls within NPS boundaries and includes the Battery Heights area. Located on a ridge west of the modern cemetery, Battery Heights served as an important artillery position during Second Manassas. It was occupied by

Federals on August 28 and by Confederates on August 30.

No trace of the historic village exists south of the Warrenton Turnpike, although several structures stood in the southwest corner of the intersection. The area is now the site of the Oswald Robinson House, a 1960s stone rambler owned by the National Park Service. To the south and facing the wartime Lewis Lane (now Groveton Road) is a two-story stone dwelling dating to 1918. Originally built as a school, the structure later underwent remodeling as a residence and now serves as housing for park staff.

Several notable commemorative features lie east of the Groveton crossroads. About 275 yards east of the Lucinda Dogan House, the Groveton Confederate Cemetery occupies a landscaped knoll overlooking Dogan Branch. Established in the late 1860s, the cemetery contains the remains of at least 266 Confederate soldiers who fell in the Manassas battles. Of these burials, only two are fully identified by headstones. The cemetery also contains a stone obelisk erected in 1904 to honor the fallen Confederates. Thirteen stone markers encircle the monument, each bearing the name of a Confederate or border state. Other early 20th century improvements include a wrought iron perimeter fence and gate, dating to 1901, and a sidewalk constructed the same year as the obelisk.

Across the Warrenton Turnpike on an extension of the cemetery ridge is the 14th Brooklyn Monument. Erected by the State of New York in 1906, the granite monument with bronze seal and plaque honors the 14th Brooklyn at the regiment's position at Second Manassas. This monument is surrounded by an iron enclosure. On the crest of a nearby ridge are granite monuments bearing bronze seals and plaques in honor of the 5th and 10th New York Infantry. Both regiments were overwhelmed in the Confederates' August 30 assault. Iron enclosures also surround these New York Monuments, and an iron gate stands at the entrance to the access road off of the Warrenton Turnpike. Due to the widening of the access road, known as New York Avenue, the iron gate is no longer functional. Across the highway, a later monument stands at the western end of the cemetery parking lot. Consisting of a bronze plaque on a sandstone base, the 1928 Groveton Monument commemorates the Second Manassas or

Groveton battle. Two other monuments on the Dogans' Peach Grove property are described in the section on the Unfinished Railroad.

The 1860s road network appears largely intact, with U.S. Route 29, Featherbed Lane, and Groveton Road mostly corresponding to their wartime alignments. The lone exception is a short stretch of U.S. Route 29 east of the Groveton Confederate Cemetery, where a narrow trace and stone abutments mark the old crossing of Dogan's Branch immediately upstream from the modern highway. The roads, while generally on their old beds, are not at the 1860s grade, as the state cut into the historic grade to minimize the undulations of the road surface. Despite the improvements, the modern roads have the appearance of rural byways and lend much to the historic scene at Groveton.

The landscape of the Groveton area still possesses much of its open character, with open fields predominating east of the crossroads and also at Battery Heights to the west of the Stonewall Memory Gardens. Within the modern cemetery, however, the battlefield landscape has undergone noticeable change, including the addition of modern structures, a road network, and a pond. More importantly, modern forest growth covers the northern portions of the cemetery tract that the Dogans maintained as pastures in the 1860s. Although outside NPS boundaries, this forest encroachment markedly hinders interpretation of Second Manassas, entirely obstructing views of the Deep Cut attack zone from Groveton and Battery Heights and contributing to the forest obstacles blocking the historic vista from the Brawner Farm. Much of this area was clear as recently as the 1940s.

### ***Henry Hill***

Situated southeast of the intersection of the Warrenton Turnpike and the Sudley-Manassas Road, Henry Hill served as the stage for some of the most dramatic events of both battles of Manassas. Confederate forces turned the tide of battle here at First Manassas, and at Second Manassas, Federal defenders made a tenacious stand that allowed the Union army to withdraw safely from the field. The area of Henry Hill comprises portions of the historic Henry and Robinson farms, and although neither wartime dwelling survives, the remains of these farmsteads serve as important battlefield

landmarks today. The hill also is presently the site of the park's visitor center.

The Henry farmstead, known also as Spring Hill, saw the heaviest fighting at First Manassas and suffered accordingly. Artillery fire during the battle left the owner, Judith Carter Henry, dead and her house severely battered. Confederate troops scavenging for wood later dismantled the structure, leaving only part of the chimney standing by the time of Second Manassas. Toward the close of the second battle, Union troops formed a defensive line on the western slopes of the hill and within the roadbed of the Sudley-Manassas Road to the west of the house site. Virginia Route 234 here generally follows its wartime alignment within a steep-banked roadbed. An abandoned stretch of the original roadbed extends southward from the wood line south of the visitor center driveway to the park boundary.

A two-story frame house, built by the Henry family in 1870 and later enlarged, now occupies the site of the original one-and-a-half story residence. A postwar frame shed of undetermined age stands immediately to the north of the house. The Henry House has been rehabilitated, and the shed has been converted into public restrooms. To the west of the house, an iron enclosure surrounds the family burial plot, which includes the marked graves of Mrs. Henry and two of her adult children who died after the war. The gravestones, although weathered, remain in fair and legible condition.

A gated and partly graveled driveway, presumably on the bed of the original farm lane, provides access to the farmstead from the Sudley-Manassas Road. Traces of the farm lane also appear in the fields northeast and east of the house, extending into the woods on the southeastern part of the farm. Within the woods the deeply worn farm trace survives as part of a hiking trail. This trace figured prominently in First Manassas as the route that Jackson's Virginians—and many Confederate reinforcements—followed into battle on Henry Hill. The trace terminates at its intersection with an historic farm road now known as Rock Road. This latter road, also part of the Confederate march route, generally follows a north-south alignment, running from U.S. Route 29 to Vandoor Lane (postwar) and skirting past the eastern slopes of Henry Hill. Surfaced with gravel in the

20th century, Rock Road is currently a component of the park's hiking trail system.

Northeast of the Henry farm lay the remains of the Robinson farmstead, the scene of important fighting during the first battle and a victim of looting during the second battle. The original one-and-a-half story frame house, the residence of freedman James Robinson, survived the war intact. The Robinson family, however, constructed additions onto their wartime home in the 1870s and 80s and later razed the original part of the house to allow the construction of a new addition in 1926. The completed two-story house stood until the structure was destroyed by arson in 1993. NPS dismantled the ruined building and a modern shed the following year. The red sandstone foundation of the 1871/1926 house comprises the only visible remains. The original farm lane still serves as the driveway onto the property, providing access from U.S. Route 29 north of the site. Both the fence-lined drive and the worn roadbed of the turnpike served as Confederate defensive positions during First Manassas.

After the battles the Henry Hill area became the focus for commemorative activities, as veterans and their descendants erected memorials and markers on the battlefield. The earliest monument was an 1861 shaft honoring Confederate Col. Francis Bartow, who was killed at First Manassas. Remains of this monument (perhaps the earliest Civil War monument anywhere) and an intact 1936 granite monument with a bronze plaque also in his honor are in the hollow southeast of the Henry House, presumably at the spot where he fell. Just east of the Henry House stands an 1865 brownstone obelisk erected by Union soldiers to honor their fallen comrades at First Manassas. Veterans of the 7th Georgia Infantry later marked their regiment's positions in the 1861 battle with numerous stones, two of which survive on Henry Hill. One marker is south of the Henry House, and the other is positioned in a clearing 600 yards to the east. Members of the United Daughters of the Confederacy erected a granite monument in 1939 to mark the area of Brig. Gen. Barnard Bee's mortal wounding in the first battle, and the Commonwealth of Virginia commissioned an equestrian statue of Brig. Gen. (later Lt. Gen.) Thomas J. "Stonewall" Jackson to commemorate his stand on Henry Hill in 1861. The 1940 Jackson statue and the nearby Bee monument are

on the crest of the hill roughly 200 yards southeast of the Henry House. All of the surviving, intact monuments are in fair to good condition.

The visitor center, erected in 1942 and later enlarged, stands on the hill about 200 yards south of the Henry House and serves as the center of interpretive activity in the park. Despite the presence of the modern visitor center, the landscape retains much of its historic character, with the configuration of field and forest generally corresponding to the hill's wartime appearance. The placement of artillery pieces along Jackson's line and at Ricketts and Griffin's battery positions enhances the hill's evocative power. The open plateau where the heaviest fighting occurred in the first battle affords commanding vistas of much of the 1861 battlefield, with Van Pelt Hill to the northeast and Matthews Hill to the north in clear view and the Bull Run Mountains (with Hopewell Gap) visible in the distance to the north-northwest. Modern forest growth to the west and northwest, however, now largely obscures views of neighboring Chinn Ridge and Dogan Ridge. These important battlefield areas were visible from Henry Hill as recently as the 1950s.

### ***Lewis***

Southwest of Groveton, the Lewis plantation, Brownsville, saw significant action during the Second Battle of Manassas. Caught between the main lines of the contending armies, the property witnessed considerable skirmishing on August 29-30. Union artillery unlimbered on the high ground near the Lewis House on August 29, and during much of the battle Union skirmishers maintained positions along Lewis Lane (now Groveton Road). On the 30th, Confederate forces under Maj. Gen. James Longstreet swept over the plantation in a massive assault on Union positions to the east.

The ruins of the Lewis family's domestic complex form the most important historic feature left on the landscape. Despite the military activity, the Lewis House—known as Brownsville or Folly Castle—survived the Civil War but was destroyed by fire in 1900. Later dwellings erected in the early 1900s and in 1940 used the foundations and building materials of the earlier house.

The foundations of the 1940 house and its predecessors occupy a knoll south of Youngs

Branch and west of the junction of Lewis Lane and modern-day Pageland Lane. Archeological evidence of other structures remains in the yard to the north of the house site, while a cemetery and spring lie to the northeast. South of the house site, the extant driveway generally follows the path of the original farm lane sometimes referred to as Lewis Lane.

The 1940 dwelling survived until its demolition as part of the William Center project in 1988. Before being aborted in 1988, the William Center project erased many important landscape features, impacting approximately 100 acres. The William Center development obliterated much of Lewis Lane, as well as large portions of the tract north of Youngs Branch. Most notable among the alterations was the partial destruction of the central ridge that helped conceal Confederate positions in the western part of the tract. The William Center project re-configured the drainage network, added roads, altered surrounding hydrology and filled in wetland areas.

Between June and November 2003, a partnership between the park and the Smithsonian Institution rehabilitated the area disturbed by the William Center project. This partnership was aided by the presence of unusually detailed topographic and hydrologic maps of the area—produced only a decade after the battles. With this information in hand, the Lewis area was re-graded to its 1862 contours. Approximately 45 acres of wetlands were restored and upland areas were planted in native warm season grasses, creating a habitat type that is rapidly dwindling in Virginia. The area now bears much resemblance to its wartime appearance—the re-grading and re-positioning of this section of the park is now considered to be within one meter of the contours present during the Second Battle of Manassas.

### ***Matthews Hill***

Located one mile north of Henry Hill on the Sudley-Manassas Road, the Matthews Hill area was the stage of important action in both battles, particularly First Manassas. On Matthews hill the Union turning column first encountered Confederate resistance in the first battle, while in both battles Confederate troops pursued retreating Federals through the area.

The partially cleared landscape recalls the site's wartime appearance, with sweeping vistas to the

west toward Dogan Ridge and to the south toward the Henry Hill engagement area. A line of cannon on the crest indicates a Union battery position during First Manassas and aids in telling the battle story. South along the vista a draw separates the main hill from Buck Hill, which forms the lower shoulder of the ridge. The latter hill served as a Confederate artillery position in First Manassas and as the site of Major General John Pope's headquarters during Second Manassas. The cleared summit of Buck Hill affords a panoramic view of much of the battlefield, encompassing Henry Hill, Matthews Hill, Van Pelt Hill, and Dogan Ridge, as well as portions of Chinn Ridge now draped in modern forest.

East of the Matthews Hill vista, 20th century forest growth shrouds the landscape, covering fully one-half of the engagement area on the crest and the site of the Matthews' farmstead. A key landmark on the wartime landscape, the one-and-a-half story Martin Matthew House survived the war but fell into ruin during the early 1900s. Only foundations remain from the house, while depressions and scattered traces mark the location of outbuildings. The entire site now lies in a thick pine woods. A horse trail skirts the area, posing a potential impact to the archeological features of the site.

Near the Matthews site, the stone Stovall Marker constitutes the only commemorative feature in the area. Erected in the late 19th century, the marble marker originally indicated the site where Georgia soldier George T. Stovall fell during the first battle. Only partially intact, the marker has since been moved and only approximates the site today.

### ***Pittsylvania***

The Carter plantation, Pittsylvania, occupies the northeastern corner of the park, and was the scene of important troop movements during both battles. Confederate forces briefly took up positions here in marching from the Stone Bridge to Matthews Hill during First Manassas, and Union troops later maneuvered and retreated over the area. At the close of Second Manassas, Union forces withdrew through the property again and left destruction in their wake.

The most prominent wartime element of the landscape is the Carter family's domestic complex. Built in the 1760s, the family's residence

at Pittsylvania formed the nucleus of their once-extensive holdings in the area. The plantation, however, fell into decline before the war, and Union troops burned the house following Second Manassas, leaving only the ruined foundation to mark the site. Around the house ruins, remnants of other structures litter the area, including the foundation of a postwar house known as Pittsylvania II. Built in the late 19th century, the later house occupied the yard south of the original house site until its demolition in 1970.

Beyond a formal lawn area, still evident to the south of the house site, sits the Carter family cemetery. Partially surrounded by a late 19th century dry-laid stone wall, the cemetery contains an unknown number of graves, some of which are marked by fieldstones. Another burial ground, for the Carter slaves, lay unmarked a short distance to the northwest, where shallow depressions indicate grave sites. South of Pittsylvania, the Maggie Lewis House occupied low ground near Youngs Branch, but no visible trace exists of the wartime dwelling of this African American woman.

The Pittsylvania area today bears little resemblance to its historic appearance, as successional forests have reclaimed much of the clear ground, including the site of the Carter house. The modern forest blocks significant views to Matthews Hill to the west and to Poplar Ford on Bull Run to the northeast. Other alterations include postwar farmsteads in the cleared areas northeast and southeast of the Carter house site. Nevertheless, some historic field patterns and portions of the farm road network remain evident. A postwar farm lane extends northward from U.S. Route 29 and, northeast of the house site, approximates the route of the road to Poplar Ford. Elsewhere, park trails partly follow routes analogous to period farm lanes linking Pittsylvania to Van Pelt Hill and Farm Ford to the east and to VA Route 234 to the west.

### ***Portici***

Occupying the southeastern corner of the park, Portici was the wartime plantation of the Francis W. Lewis family and the setting for important activity in both battles. Here, Confederate Gen. Joseph E. Johnston set up his battlefield command post at the height of the first battle, while at the close of the second battle, Union and Confederate cavalry clashed on the property in a



brief but violent exchange. The most notable feature on wartime landscape was the Lewis residence, Portici, which stood on a ridge overlooking the Old Warrenton, Alexandria, and Washington Road (now Balls Ford Road) and the valley of Bull Run. A full English cellar and a pair of massive brick chimneys were among the distinctive features of the 1820 plantation manor. The house survived the First Battle of Manassas, when it served as Johnston's headquarters and as a field hospital, but was destroyed by fire sometime following the second battle (the date of its destruction is uncertain). An archeological investigation of the property during the late 1980s uncovered the ruins of the domestic complex, including the debris-filled remains of the cellar, but only scattered bricks and a lone wayside mark the site of Portici today.

Scattered across the property are the remains of other dwelling sites related to the extended Lewis family, none of which were standing during the Civil War. Among the notable archeological features are the remains of Pohoke, which had been the seat of the plantation prior to the construction of Portici. The earlier house stood on a ridge north of the site of Portici, but no visible trace survives above ground. Several post-Civil War house sites dot the landscape, including Portici II and Portici III, both family dwellings that successively occupied the same site on a low ridge southeast of Portici. Portici III, also known as the F. Lewis/Wheeler House, stood on that site until the NPS removed the dilapidated structure to restore the setting of the 1862 cavalry engagement.

Other Lewis family sites include the Ball Family Cemetery, which lies on a hill near the site of Pohoke and contains the remains of the Lewis' forebears. Five pairs of head- and footstones and several fieldstone markers designate the known burial sites. A stone wall, reconstructed in the 1930s, serves to protect the remaining grave markers, but the cemetery may extend beyond the walled area.

Among the notable military features on the property are the remnants of camp huts and structures built and occupied by Confederate troops in the winter of 1861-62. Federal soldiers briefly occupied the camp after the Confederates abandoned the site in March 1862. On a wooded hill west of Portici, the Confederate winter campsite straddles the park boundary and is the

only known wartime campsite within the park. In recent years the site has suffered from relic hunting activity as well as the effects of the development of the adjacent Battlefield Business Park.

The gently rolling landscape lies mostly in open fields, reflecting its two centuries of agricultural use. The high ground at the Portici house site still offers expansive views of the countryside to the south, now cluttered with suburban sprawl. Nevertheless, the open vista at Portici provides the only opportunity to interpret the Confederates' movement from the Manassas Junction area during First Manassas. To the east, however, a thick belt of woods along Bull Run blocks the historic view of the Federals' approach on the Warrenton Turnpike. These woods also screen from sight a large quarry operation. Along the western boundary of the property, a thin body of woods covers the site of the Confederate winter camp and helps to conceal part of the neighboring business park.

From VA Route 234, the modern Battleview Parkway extends through the business park to Vandor Lane (also postwar) on the park's southern boundary and provides vehicular access to the Portici area. Just south of the park boundary, Interstate 66 cuts a wide swath across the historic landscape, partially severing the plantation's historic connection to the Old Warrenton, Alexandria and Washington Road (modern-day Balls Ford Road) and slicing through part of the area of the 1862 cavalry engagement. An abandoned stretch of the historic road survives in the southeastern portion of the property and extends to Balls Ford on Bull Run.

In the western portion of the tract, an historic farm road, now known as Rock Road, continues in use as a fire road and park trail. During First Manassas, Confederates advanced to the Henry Hill area along this route, and Confederate President Jefferson Davis rode forward to Holkums Branch and encountered Stonewall Jackson after the fighting.

### *Stone Bridge*

Marking the eastern entry to the park, the Stone Bridge area was the site of the opening shots of First Manassas and the primary route of retreat for Federals at Second Manassas. Originally constructed as part of the Warrenton Turnpike in

the 1820s, the Stone Bridge was the primary wagon crossing over Bull Run. Although the bridge survived the fighting in 1861, the span lay in ruins by the time of Second Manassas: Confederates destroyed the bridge during their withdrawal from Bull Run in March 1862. Subsequently, a wooden bridge employed the old stone abutments, and a new stone bridge was constructed on the site in the 1880s.

Today the reconstructed Stone Bridge remains one of the park's most recognized features. Repointed and extensively repaired in 1990, the bridge is generally in good condition. Traces of the Warrenton Turnpike also survive at the approaches to the bridge. On the eastern approach to the bridge, the trace remains as a grass trail maintained for handicapped access, while to the west, a gravel pedestrian trail occupies the old roadbed that covers part of the historic road. The trace resumes west of the parking lot and is interrupted by the berm containing modern U.S. Route 29. Periodic flooding from Bull Run impacts portions of the trace west of the bridge. Upstream from the Stone Bridge was the site of Farm Ford, an important crossing point for Federals during First Manassas. The ford has fallen into disuse since the war and a site marker points to its general location along the hiking trail north of the bridge.

Notable terrain features in the area include Bull Run, which loops through the area, the steep bluffs along the stream's eastern (Fairfax County) bank, and a broad floodplain extending west from the bridge to Van Pelt Hill. Historically, the slope of Van Pelt Hill as well as much of the floodplain lay bare: Confederates felled the trees to allow for clear fields of fire for artillery. Forest growth has since reclaimed the clear-cut area, obscuring the view of the bridge and its approaches.

### ***Stone House***

One of only three rehabilitated wartime buildings within the park, the Stone House, is also one of the park's most recognized landmarks. Its location at the junction of the Warrenton Turnpike and the Sudley-Manassas Road helped determine its use. Built in the second quarter of the 19th century, the two-and-a-half story building has served variously as a tavern, post office, and residence. During the Civil War, the house sheltered Union wounded in both

Manassas engagements and graffiti in an upstairs room provides graphic evidence of its occupation. Acquired in 1949 and rehabilitated in the 1960s, the Stone House has become a key interpretive site.

The surrounding landscape aids the interpretation of the site. The well in the front yard dates to the war and is the only other period feature on the grounds. To the north the abrupt slope of Buck Hill rises to the site of Pope's headquarters during Second Manassas. At the foot of Buck Hill, a 1928 bronze tablet memorializing First Manassas forms the only commemorative feature on the landscape. Meanwhile to the south and across the Warrenton Turnpike, Youngs Branch threads its way through a floodplain past the foot of Henry Hill.

Modern U.S. Route 29 and VA Route 234 occupy the roadbeds of the wartime Warrenton Turnpike and the Sudley-Manassas Road, respectively, which meet just west of the house at a historically significant intersection. South of the junction, VA Route 234 continues for a short distance on a new alignment, but the bed of the old road is discernible at Youngs Branch. Despite asphalt surfaces and the presence of a traffic signal, the two roads retain their rural character, and the intersection evokes the appearance of a country crossroads, allowing the public to appreciate the historic setting with minimal intrusions. Heavy through traffic does compromise the visitor experience here, forming the gravest threat to the historic scene at the Stone House. Modern improvements to the intersection include the following:

- Installation of mast-arm mountings for traffic signals
- Addition of left turn lanes to all four legs of the intersection;
- Relocation of the parking lot to the East side of Stone House
- Burying of utility lines
- Alteration of the grade of VA Route 234 going up Buck Hill
- Addition of curbs and drains
- Addition of a pedestrian bridge over Young's Branch

- Addition of pedestrian crosswalks across U.S. Route 29

### ***Stuart's Hill***

Located in the southwestern corner of the park, Stuart's Hill was the site of Gen. Robert E. Lee's headquarters during the Second Battle of Manassas. With its summit and eastern slopes cleared, the hill, among the highest points on the battlefield, allowed the Confederate commander to observe troop movements as well as maintain communications with his wing commanders from a signal station near the crest. Today, successional forest growth obscures the sweeping vistas of the 1860s, hindering the park's efforts to interpret the site's historic importance. A narrow corridor on the northeast slope of the hill provides a vista to the neighboring Brawner Farm. Otherwise, dense woods cover the hill's eastern slopes.

At the time of the war, the nearby Cundiff plantation, Meadowville, encompassed much of Stuart's Hill, including the area of Lee's headquarters. Although most development associated with the plantation lay east of the hill, wartime accounts describe the ruins of a structure on the crest. No visible trace remains of this building, but stone piles on the slopes of the hill mark the borders of wartime fields. Other remnant fence lines on the property date to the 1871 partition of the plantation.

To the west, modern development has disturbed the historic setting, but a thin body of forest helps screen the intrusions from view of the crest. A modern park headquarters and interpretive facility now occupies the western slope, and a nonhistoric gravel drive provides vehicular access to the site. At the foot of the western slope lie a string of ponds where Union Brig. Gen. Rufus King and some of his men paused to rest before the Brawner Farm engagement on August 28. Although the ponds are of recent origin, they occupy the area of a pool of water where King and others found refreshment. To the northwest is the key intersection of the Warrenton Turnpike and Pageland Lane, both important corridors of military movement during the battle. The gravel-surfaced Pageland Lane retains the feel of a country byway, but the Warrenton Turnpike at this junction is now the modern four-lane divided U.S. Route 29.

### ***Sudley***

Situated at the confluence of Catharpin Run and Bull Run, the wartime community of Sudley was the scene of major events in each battle. The village lay along the route of Federal advance and retreat at First Manassas, and major action occurred in the area during Second Manassas, when the community marked the left flank of the Confederate line. Although little remains the war period, the extant structures and archeological sites provide a sense of the 1860s landscape.

Adjacent to the park boundary on the Sudley-Manassas Road, Sudley Church remains a focal point for the community. Founded in the early 19th century to serve the area's growing Methodist population, Sudley Church later became a temporary hospital for Union wounded at First Manassas. Although the present structure bears no resemblance to the wartime building, the 1920s edifice occupies the same site and serves as a key battlefield landmark today. The church's cemetery lies immediately to the south and contains the graves of numerous residents associated with the park story. The recent expansion of the cemetery, however, occupies land acquired from the park in the 1980s and may impact the historic appearance of the setting.

Across U.S. Route 234 to the northeast and on park lands, the building known as the Thornberry House lies atop a knoll overlooking the stream confluence. According to historic maps and documentary evidence, several structures occupied the property during the battles and served as overflow shelter for the Union wounded at Sudley Church. Recent research suggests that the south block of the present day one-and-a-half story building was constructed prior to the Civil War. The north block and lean-to shed were added later, although their date is uncertain. Portions of the building housed local post office operations at the turn of the century. NPS has completed rehabilitation of the Thornberry House to permit future public access to the building's interior. The structure is one of only three wartime buildings within the park.

Archeological features mark the location of other structures and features that comprised the wartime village. North of Thornberry House, on privately owned land across Catharpin Run, a stone pile marks the site of the historic spring house that adjoined Sudley Springs Ford. Union

troops passed this feature on their march onto the battlefield at First Manassas. South of the Thornberry House, the ruins of the Amos Benson House lie adjacent to a pronounced cut of the Unfinished Railroad. The Bensons, parishioners of Sudley Church, helped tend to Union wounded at First Manassas, and their home, known as Christian Hill, became a battlefield landmark. After Benson and his wife died, the house fell into ruin early in the 20th century. Across the railroad cut from the Benson site, numerous disinterred soldiers' graves dot the ground.

Outside the park, remnants of the historic Sudley Mill complex and its adjacent millrace lie north of Catharpin Run upstream from the modern crossing of VA Route 234. Few other traces remain on park land. No visible ruins survive from several nondescript structures that lay across the Sudley-Manassas Road from the church. These structures may have been moved to form the present Thornberry House. One farmstead, identified as the Cushing Farm, lay south of the church in the area of the cemetery expansion, but nothing remains above ground from the farmstead. Farther south beyond the Unfinished Railroad, foundations and depressions mark the site of a 19th century farmstead. Traditionally identified as the wartime house site of Mahala Dean, a free African American, the features may date to a postwar farm.

Evidence of the wartime transportation network in the Sudley area abounds despite some 20th century alterations. Modern VA Route 234 occupies much of the roadbed of the historic Sudley-Manassas Road south of the church. To the north, however, the highway follows a new alignment slightly west of the wartime road, and the historic route continues onto park land as a well-defined trace. The trace terminates at Sudley Springs Ford on Catharpin Run. Beyond the stream the road continued north to Sudley Ford, where the Union turning column crossed Bull Run at First Manassas. The site of Sudley Ford, on private land, falls partly within the Cedar Crest Country Club.

Approaching from the west, the route of the historic Groveton-Sudley Road (now Featherbed Lane) also follows a new course through the Sudley area and intersects the Sudley-Manassas Road just north of the church. An abandoned

stretch of the wartime road continues as a trace running northward to the site of the Sudley Mill complex. Meanwhile to the south, the cuts and fills of the Unfinished Railroad slice through the Sudley area and now form part of the park's trail system. (This feature is described in more detail below.)

The landscape in the Sudley area is somewhat more wooded today than in the 1860s. Across the Sudley-Manassas Road from the church, woods now blanket the former Benson property. To the southwest, forest growth covers a rocky knoll that South Carolina troops held during Second Manassas.

### ***Unfinished Railroad***

Extending across the northwestern portion of the battlefield, the Unfinished Railroad saw some of the heaviest fighting of the Second Battle of Manassas. Dubbed the Independent Line of the Manassas Gap Railroad, the line lay incomplete at the outset of war, with only the graded rail bed in place. The cuts and fills of the rail bed served as a defensive position for Stonewall Jackson's Confederates during the battle and a focus of Union assaults. Today the graded bed of the Unfinished Railroad remains intact along its two-mile course through the park. In addition to the cuts and fills of the roadbed, an abandoned quarry lies adjacent to the railroad just east of Pageland Lane on the park's western border. Remnants of stone piers for a planned trestle over Bull Run also survive at the park's eastern border, where the railroad crosses into a private golf course.

Along most of the railroad's path through the battlefield, park trails run over and along the rail bed, causing soil compaction and erosion in numerous places. In some areas, trail construction has altered the appearance of the resource to accommodate pedestrian use. Still, the most notable change to the historic setting is in the ground cover. Successional forests have replaced open fields, particularly west of Featherbed Lane, which bisects the rail bed. Postwar forest growth in this area almost entirely obscures the key terrain where the Union attack on the railroad's Deep Cut occurred, completely blocking historic views from the Brawner Farm area. The recent vista at the Deep Cut is far too narrow to convey the historic appearance of this important landscape. East of Featherbed Lane the terrain generally retains its wooded character,

with the wartime Groveton Woods covering much of the area of the railroad just east of the road. Farther to the east, however, woods now cover the rocky knoll near Sudley, where Maxcy Gregg's South Carolinians received heavy attacks on August 29.

Two commemorative features serve to highlight the fierce fighting in the Deep Cut area. Erected by Union troops in 1865, the Groveton Monument (also known as the Deep Cut Monument) sits adjacent to the Deep Cut and overlooks the slopes where Union troops struggled to advance. At the foot of the slope next to Schoolhouse Branch, the Cedar Pole Marker indicates the position of Berdan's Sharpshooters along the stream during the attack on the Confederates' Deep Cut position. The extant pole and sign are replacements for the postwar marker, originally installed by a Union veteran. Nearby, shallow depressions indicate the location of disinterred soldiers' graves from the battle. Other disinterred burial sites lay near the Unfinished Railroad in the Sudley area and north of the Brawner Farm.

### ***Van Pelt***

Overlooking the Stone Bridge and Bull Run, Van Pelt Hill was a strategic location during the First Battle of Manassas. Confederate forces deployed here to guard the stream crossing and maintained a signal station on the hilltop to communicate

with their army's far-flung positions. Southern artillerists also unlimbered here to discourage Federals from advancing over the nearby bridge and cleared the hillside facing Bull Run to permit a clear field of fire.

The most prominent wartime feature was the farmstead of Abraham Van Pelt. Built in the 1850s, the Van Pelt House stood on the crest and withstood Union shelling in 1861. The house was destroyed by fire in 1932, and only depressions remain to mark the location. The remains include the backfilled site of the house and several ancillary structures. The trace of the wartime farm lane survives just west of the house site and extends south to the traces of the original Warrenton Turnpike. These traces survive south of U.S. Route 29, which cuts through the southern portion of Van Pelt Hill. West of the hill, near Youngs Branch, the historic roadbed and the modern highway merge. An historic farm lane, now known as Rock Road, intersects the Warrenton Turnpike south of the farmstead and forms part of the park's trail system.

The Van Pelt landscape retains much of its open appearance. To the east, however, forest growth covers the slopes of the hill facing Bull Run. The vegetation blocks historic views of the stream and the nearby Stone Bridge and somewhat hinders interpretive efforts in this area.

## APPENDIX B: DESCRIPTION OF BATTLE EVENTS

### ***First Manassas—July 21, 1861***

Maps A-1 and A-2 depict the events of the First Battle of Manassas.

#### **Confederate Headquarters and Defense of Bull Run**

Confederate forces establish defensive positions along Bull Run protecting the strategic rail center of Manassas Junction and await approach of Union Army under Brig. Gen. Irvin McDowell. North of Lewis Ford, Southern defenders throw up rifle pits and gun emplacements along the stream. Confederate Gen. Joseph E. Johnston moves his headquarters to Portici at midday as the battle develops on the Confederate left.

#### **Confederate Defense of Bull Run**

Union forces advance along the Warrenton Turnpike and demonstrate at Stone Bridge, while a turning column marches north toward Sudley Ford. Union artillery direct initial shots at the Van Pelt House.

Confederate defenders under Col. Nathan Evans learn of Union turning movement and shift from Van Pelt Hill to vicinity of Pittsylvania to guard possible crossing at Poplar Ford before marching toward Matthews Hill to check Union advance. Union Col. William T. Sherman locates crossing at Farm Ford at mid-morning and directs his troops to ford Bull Run.

#### **Union Advance and Retreat**

Union turning column crosses Bull Run at Sudley Ford and begins to march south along Sudley Road, crossing Catharpin Run at Sudley Springs Ford en route. Union wounded later find shelter and treatment at temporary hospital at Sudley Church; neighboring structures (now comprising Thornberry House) provide overflow shelter. Union forces withdraw across Sudley Ford (as well as other crossing points) at close of battle.

#### **Initial Fighting**

Fighting erupts as Union turning column marches south on Sudley Road and encounters Evans' Confederates at Matthews Hill. The battle swells as Union troops spill onto Dogan Ridge and Confederate reinforcements arrive from Henry Hill.

Southern resistance collapses as Confederates retreat from positions on Matthews Hill and Buck Hill to Henry Hill. Union troops pursue to the vicinity of the Stone House, but a lull in the fighting gives the Confederates reprieve.

#### **Core Fighting**

Confederate reinforcements arrive on Henry Hill at midday, and Southern resistance coalesces on the line of Brig. Gen. Thomas J. Jackson's Virginians. Sporadic fighting continues near the Robinson House and on the northern area of Henry Hill while Union forces ready for a renewal of their advance.

Union forces resume their offensive as Federal batteries advance to Henry Hill and take positions around the Henry House. Artillery duel leads to stalemated battle, and Union Capt. Charles Griffin seeks the advantage by moving two of his guns toward Jackson's left flank. Confederate infantry seizes Griffin's two exposed guns, launching a struggle for the Union batteries and the control of Henry Hill. With reinforcements steadily arriving, the Confederates gain possession of Henry Hill.

#### **Final Union Advance**

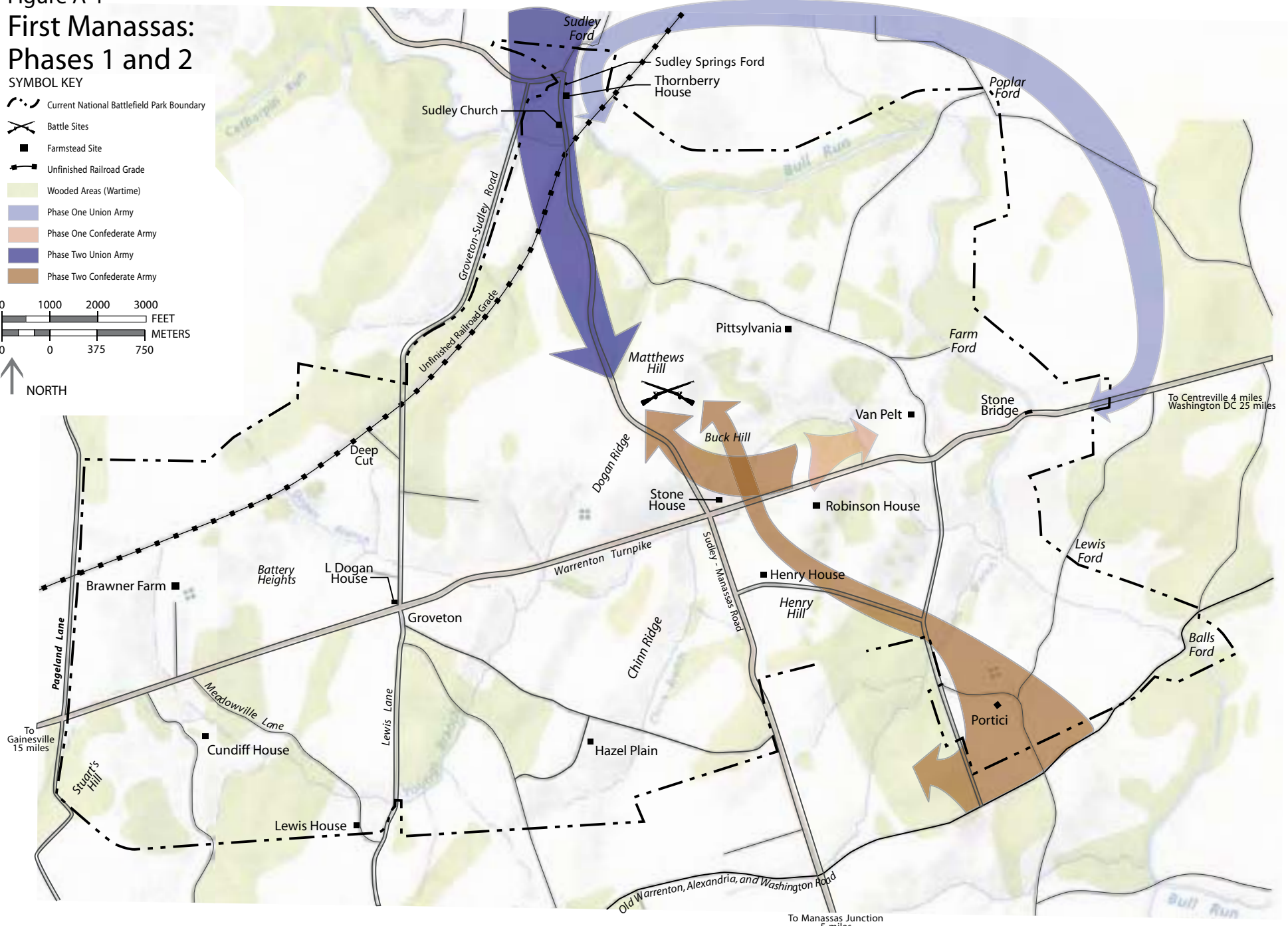
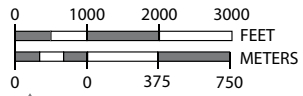
In an effort to turn the Confederate position on Henry Hill, O. O. Howard's Union brigade advances to Chinn Ridge.

Along a line extending from Sudley Road to the Chinn House, Confederate forces sweep across Chinn Ridge and drive off Howard's brigade, leading to a general Union withdrawal from the field.

# Figure A-1 First Manassas: Phases 1 and 2

## SYMBOL KEY

-  Current National Battlefield Park Boundary
-  Battle Sites
-  Farmstead Site
-  Unfinished Railroad Grade
-  Wooded Areas (Wartime)
-  Phase One Union Army
-  Phase One Confederate Army
-  Phase Two Union Army
-  Phase Two Confederate Army

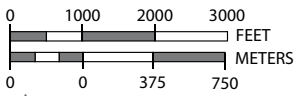




# Figure A-2 First Manassas: Phase 3 and Union Retreat

## SYMBOL KEY

-  Current National Battlefield Park Boundary
-  Battle Sites
-  Farmstead Site
-  Unfinished Railroad Grade
-  Wooded Areas (Wartime)
-  Union Advance
-  Confederate Defense
-  Union Retreat





***Second Manassas, August 28 -30, 1862***

Maps A-3 and A-4 depict the events of the First Battle of Manassas.

**Initial Fighting**

Confederate forces under Maj. Gen. Thomas J. Stonewall Jackson find concealment on wooded slopes of Stony Ridge and observe Union movements across their front on August 28.

An isolated Union division under Brig. Gen. Rufus King marches first north on Pageland Lane, then east onto the Warrenton Turnpike, headed for Centreville.

Jackson's Confederates fire on king's column at the Brawner Farm and draw the Federals into battle.

Advancing first through the Brawner Woods (or Gibbon's Woods), King's infantry encounters Jackson's troops in the fields east of the Brawner House in a battle that lasts until dusk.

The combat intensifies as the battle lines spread onto the neighboring Lucinda Dogan Farm; at dark, King's Federals withdraw from the contested field.

**Union Attacks**

Union forces probe the slopes of Stony Ridge on August 29 and locate Jackson's Confederates aligned along the cuts and fills of the Unfinished Railroad.

In a series of piecemeal attacks on the Unfinished Railroad, Union troops pierce the

Confederates' front but fail to dislodge the defenders from their strong position.

At dusk, Union troops probe westward on the Warrenton Turnpike and clash with a Confederate force advancing east of Groveton.

Union attacks resume on August 30, culminating in a major assault on Jackson's line at the Deep Cut of the Unfinished Railroad.

With the help of Confederate artillery near the Brawner Farm, Jackson's infantry repulses the Union assault at the Deep Cut.

**Confederate Headquarters and Staging Area**

Gen. Robert E. Lee arrives on the battlefield during the late morning of August 29 and set up his headquarters on Stuart's Hill.

Maj. Gen. James Longstreet's Confederate forces deploy across the Cundiff and W. Lewis farms (Meadowville and Brownsville, respectively) and await orders.

Lee and Longstreet unleash a massive counterattack late in the day on August 30, as the Union assault on the Deep Cut collapses.

**Union Headquarters and Staging Area**

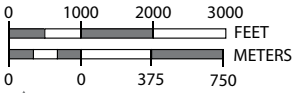
Maj. Gen. John Pope arrives on the battlefield at midday on August 29 and establishes his headquarters on Buck Hill.

Union artillery unlimbers on Dogan Ridge to support attacks on the Confederates along the Unfinished Railroad.

# Figure A-3 Second Manassas: Phases 1 and 2

## SYMBOL KEY

-  Current National Battlefield Park Boundary
-  Battle Sites
-  Farmstead Site
-  Unfinished Railroad Grade
-  Wooded Areas (Wartime)
-  Phase One Union Army
-  Phase One Confederate Army
-  Phase Two Union Army
-  Phase Two Confederate Army








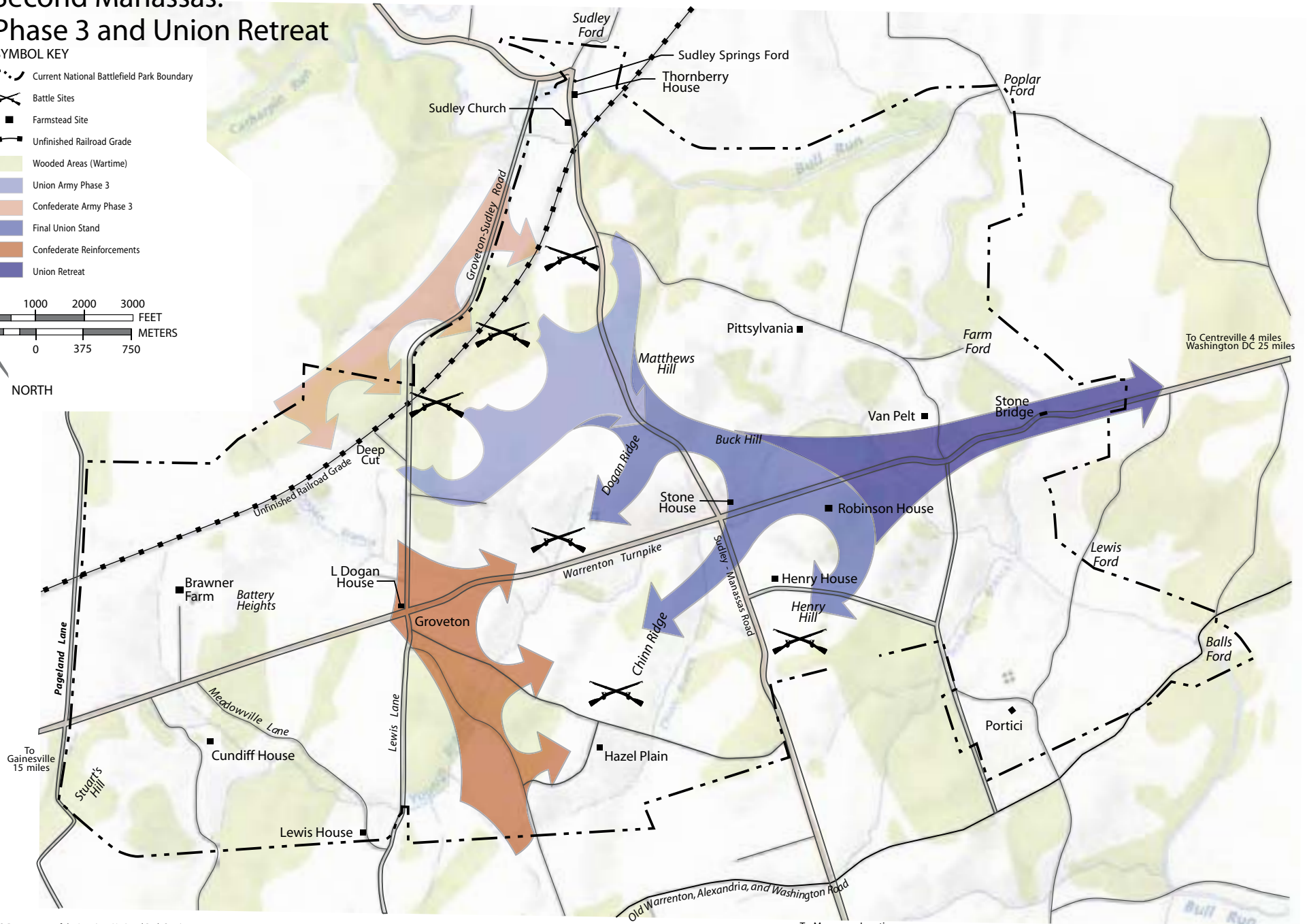
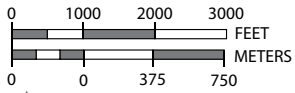
↑ NORTH



# Figure A-4 Second Manassas: Phase 3 and Union Retreat

## SYMBOL KEY

-  Current National Battlefield Park Boundary
-  Battle Sites
-  Farmstead Site
-  Unfinished Railroad Grade
-  Wooded Areas (Wartime)
-  Union Army Phase 3
-  Confederate Army Phase 3
-  Final Union Stand
-  Confederate Reinforcements
-  Union Retreat



APPENDIX C: RELEVANT LEGISLATION AND SPECIAL MANDATES

V. NATIONAL BATTLEFIELD PARKS

1. Manassas National Battlefield Park

	Page
Designation of area as a national historic site, to be known as Manassas National Battlefield Park: Order of May 10, 1940.....	71

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ORDER DESIGNATING THE MANASSAS NATIONAL BATTLEFIELD PARK,  
PRINCE WILLIAM COUNTY, VA.

[May 10, 1940—5 F. R. 1824]

WHEREAS the Congress of the United States has declared it to be a national policy to preserve for the public use historic sites, buildings and objects of national significance for the inspiration and benefit of the people of the United States; and

WHEREAS certain lands and structures in Manassas Magisterial District, Prince William County, Virginia, because of their historical importance as the battlefield site of the First and Second battles of Manassas during the war between the States, have been declared by the Advisory Board on National Parks, Historic Sites, Buildings and other monuments to be of national significance; and

WHEREAS title to the above-mentioned lands with the buildings and structures thereon is vested in the United States:

NOW, THEREFORE, I, Harold L. Ickes, Secretary of the Interior, under and by virtue of the authority conferred by section 2 of the act of Congress approved August 21, 1935 (49 Stat. 666), do hereby designate all those certain tracts or parcels of land, with the structures thereon, containing approximately 1,604.575 acres and situated in Manassas Magisterial District, Prince William County, Virginia, as shown upon the diagram hereto attached and made a part hereof, to be a national historic site, having the name "Manassas National Battlefield Park."

The administration, protection, and development of this area shall be exercised by the National Park Service in accordance with the provisions of the act of August 21, 1935, *supra*.

Warning is expressly given to all unauthorized persons not to appropriate, injure, destroy, deface or remove any feature of this park.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the official seal of the Department of the Interior to be affixed, in the City of Washington this 10th day of May 1940.

[SEAL]

HAROLD L. ICKES,  
*Secretary of the Interior.*



Public Law 338 - 83d Congress  
Chapter 153 - 2d Session  
H. R. 5529

AN ACT

To preserve within Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battles of Manassas, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That, in order to establish satisfactory boundaries for the Manassas National Battlefield Park, in the State of Virginia, and to contain within such boundaries the important historic lands relating to the two battles of Manassas, the boundaries of such battlefield park hereafter shall contain that area which is bounded, in general, as follows: The south boundary of the park shall be the southernmost limits of the present federally owned lands in the south portion of the park; the east and northeast boundaries shall be that portion of the Bull Run Creek which extends from the south boundary of the park north and westward to the north boundary of the park as hereinafter prescribed; the southwest boundary shall be that portion of Compton's Lane from its nearest point adjacent to the south boundary and extending northwesterly to State secondary highway numbered 622; the west and northwest boundary shall be State secondary highway numbered 622, from the point where it connects with Compton's Lane and extending northward until it reaches the Sudley Church property; the north boundary shall be the northernmost limits of the present Federal park holdings in the immediate vicinity of the Sudley Church property. The boundaries of the park also may include not more than two hundred and fifty acres of land adjacent to the aforesaid west and north boundaries of the park, which land shall become a part of the park upon acquisition thereof by the United States: *Provided,* That the total acreage which may be acquired for the park pursuant to this Act shall not exceed one thousand four hundred acres. Such land or interests therein may be procured by the Secretary of the Interior in such manner as he may consider to be in the public interest.

Manassas  
National  
Battlefield  
Park.  
Boundaries.

For exchange purposes, particularly in connection with State and other highway developments, the Secretary is authorized to accept, on behalf of the United States, any non-Federal land or interests therein situated within the park area herein prescribed, and in exchange therefor to convey park land or interests therein of approximately equal value.

68 Stat. 56.  
68 Stat. 57.

Approved April 17, 1954.

PUBLIC LAW 96-442—OCT. 13, 1980

94 STAT. 1885

Public Law 96-442  
96th Congress

## An Act

To amend the Act entitled "An Act to preserve within Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battle of Manassas, and for other purposes", approved April 17, 1954 (68 Stat. 56; 16 U.S.C. 429b).

Oct. 13, 1980  
[H.R. 5048]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Manassas National Battlefield Park Amendments of 1980".*

Manassas  
National  
Battlefield  
Amendments of  
1980.  
16 USC 429b  
note.  
16 USC 429b.

SEC. 2. The Act entitled "An Act to preserve within the Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battle of Manassas, and for other purposes", approved April 17, 1954 (16 U.S.C. 429b), is amended to read as follows: "That there is established as a unit of the national park system in the Commonwealth of Virginia the Manassas National Battlefield Park, which shall contain within its boundaries the important historical lands relating to the two battles of Manassas. The total area of the park shall not be greater than four thousand five hundred and twenty-five acres. The boundaries of the park shall be the boundaries depicted on the map entitled 'Boundary Map, Manassas National Battlefield Park', dated October 1980, and numbered 379/80,009, which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior. The Secretary shall publish in the Federal Register, as soon as practicable after the date of the enactment of this Act, but no later than one year from the effective date of this section, a detailed description and map of the boundaries. Notwithstanding section 7(c) of the Land and Water Conservation Fund Act of 1965 (91 Stat. 211), as amended (16 U.S.C. 4601), the Secretary may not make any changes in the boundaries of the park. The Secretary shall administer the park in accordance with laws, rules, and regulations applicable to the national park system.

Description.

Publication in  
Federal  
Register.

16 USC 4601-9.

"SEC. 2. (a) In order to effectuate the purposes of this Act, the Secretary is authorized to acquire by donation, purchase with donated or appropriated funds or exchange, any property or interests therein which are located within the boundaries of the park, except that property owned by the Commonwealth of Virginia or by any political subdivision thereof may be acquired only by donation.

Funding.  
16 USC 429b-1.

"(b) With respect to areas within the 1954 boundaries of the park, as identified on the map referred to in the first section of this Act, the Secretary may not acquire fee simple title to such areas without the consent of the owner so long as the lands continue to be devoted to a use which is the same as that in effect on September 1, 1980. Further, if the Secretary proposes to acquire fee simple title to such property because of a change in use, the owner of such property may seek a review of the proposed acquisition of his or her property and is entitled to a hearing on the record in accordance with section 554 of title 5 of the United States Code.

94 STAT. 1886

PUBLIC LAW 96-442—OCT. 13, 1980

Route 234  
bypass.

"(c) If the Virginia Department of Highways and Transportation determines that the proposed Route 234 bypass should be properly located between the Virginia Electric Power Company powerline easement and Route 705, the Secretary shall make available the land necessary for such bypass, subject to such revisions, terms, and conditions as the Secretary deems are necessary and appropriate to assure that such bypass is located, constructed, operated, and maintained in a manner consistent with the administration of the park.

"(d) The Secretary may not close any State roads within the park unless action permitting the closing of such roads has been taken by appropriate officials of the Commonwealth of Virginia.

Residential  
property.  
16 USC 429b-2.

"SEC. 3. (a) Subsequent to the date of enactment of this section, the owner of improved property on the date of its acquisition by the Secretary may, as a condition of such acquisition, retain for himself and his heirs and assigns a right of use and occupancy of the improved property for noncommercial residential purposes for a definite term of not more than twenty-five years or for a term ending at the death of the owner or the death of the spouse of the owner, whichever is later. The owner shall elect the term to be reserved. Unless this property is wholly or partially donated to the United States, the Secretary shall pay the owner an amount equal to the fair market value of the property on the date of its acquisition less the value on such date of the right retained by the owner. If such property is donated (in whole or in part) to the United States, the Secretary may pay to the owner such lesser amount as the owner may agree to. A right retained pursuant to this section shall be subject to termination by the Secretary upon his determination that it is being exercised in a manner inconsistent with the purposes of this Act, and it shall terminate by operation of law upon the Secretary's notifying the holder of the right of such determination and tendering to him an amount equal to the fair market value of that portion of the right which remains unexpired.

"(b) No property owner who elects to retain a right of use and occupancy under this section shall be considered a displaced person as defined in section 101(6) of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Stat. 1894). Such owners shall be considered to have waived any benefits which would otherwise accrue to them under sections 203 through 206 of such Act.

42 USC 4601.

42 USC  
4623-4626  
Definitions.  
16 USC 429b-3.

"SEC. 4. For purposes of this Act—

"(1) The term 'improved property' means a detached, one-family dwelling, construction of which was begun before January 1, 1979, which is used for noncommercial residential purposes, together with not to exceed three acres of land on which the dwelling is situated and together with such additional lands or interests therein as the Secretary deems to be reasonably necessary for access thereto, such lands being in the same ownership as the dwelling, together with any structures accessory to the dwelling which are situated on such land.

"(2) The term 'park' means the Manassas National Battlefield Park established under this Act.

"(3) The term 'Secretary' means the Secretary of the Interior.

"(4) The term 'owner' means the owner of record as of September 1, 1980.

16 USC 429b-4.

"SEC. 5. (a) In addition to sums heretofore expended for the acquisition of property and interests therein for the park, from funds available for expenditure from the Land and Water Conservation Fund, as established under the Land and Water Conservation Fund

PUBLIC LAW 96-442—OCT. 13, 1980

94 STAT. 1887

Act of 1965, not more than a total of \$8,700,000 may be expended for the acquisition of property and interests therein under this Act.

16 USC 4601-4  
note.

"(b) It is the express intent of Congress that, except for property referred to in subsection 2(b), the Secretary shall acquire property and interests therein under this Act within two complete fiscal years after the date of the enactment of the Manassas National Battlefield Park Amendments of 1980.

*Ante*, p. 1885.

"SEC. 6. (a) Authorizations of moneys to be appropriated under this Act from the Land and Water Conservation Fund for acquisition of properties and interests shall be effective on October 1, 1981.

Effective date.  
16 USC 429b-5.

"(b) Notwithstanding any other provision of this Act, authority to enter into contracts, to incur obligations, or to make payments under this Act shall be effective only to the extent, and in such amounts as are provided in advance in appropriation Acts."

Approved October 13, 1980.



H. R. 4333—469

- (21) Item 907.69 (relating to sodium tartrate).
  - (22) Item 907.76 (relating to lactulose).
  - (23) Item 910.00 (relating to diamond tool and drill blanks).
  - (24) Item 911.50 (relating to unwrought lead).
  - (25) Item 912.13 (relating to certain power-driven flat knitting machines and parts thereof).
- (b) OTHER EXTENSIONS.—
- (1) Item 907.00 (relating to p-hydroxybenzoic acid) is amended by striking out "9/30/85" and inserting in lieu thereof "12/31/88".
  - (2) Item 907.22 (relating to caffeine) is amended by striking out "On or before 12/31/87" and inserting in lieu thereof "On or before the earlier of 12/31/92 or the date on which the rate of duty imposed by the European Communities on articles described in item 437.02 exceeds the rate of duty imposed by the United States on such articles that was in effect on 6/30/88"

## TITLE X—MANASSAS NATIONAL BATTLEFIELD PARK

### SEC. 10001. SHORT TITLE.

This title may be cited as the "Manassas National Battlefield Park Amendments of 1988".

### SEC. 10002. ADDITION TO MANASSAS NATIONAL BATTLEFIELD PARK.

The first section of the Act entitled "An act to preserve within Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battle of Manassas, and for other purposes", approved April 17, 1954 (16 U.S.C. 429b), is amended—

(1) by inserting "(a)" after "That"; and

(2) by adding at the end thereof the following:

"(b)(1) In addition to subsection (a), the boundaries of the park shall include the area, comprising approximately 600 acres, which is south of U.S. Route 29, north of Interstate Route 66, east of Route 705, and west of Route 622. Such area shall hereafter in this Act be referred to as the 'Addition'.

"(2)(A) Notwithstanding any other provision of law, effective on the date of enactment of the Manassas National Battlefield Park Amendments of 1988, there is hereby vested in the United States all right, title, and interest in and to, and the right to immediate possession of, all the real property within the Addition.

"(B) The United States shall pay just compensation to the owners of any property taken pursuant to this paragraph and the full faith and credit of the United States is hereby pledged to the payment of any judgment entered against the United States with respect to the taking of such property. Payment shall be in the amount of the agreed negotiated value of such property or the valuation of such property awarded by judgment and shall be made from the permanent judgment appropriation established pursuant to 31 U.S.C. 1304. Such payment shall include interest on the value of such property which shall be compounded quarterly and computed at the rate applicable for the period involved, as determined by the Secretary of the Treasury on the basis of the current average market yield on outstanding marketable obligations of the United States of comparable maturities from the date of enactment of the Manassas

H. R. 4333—470

National Battlefield Park Amendments of 1988 to the last day of the month preceding the date on which payment is made.

“(C) In the absence of a negotiated settlement, or an action by the owner, within 1 year after the date of enactment of the Manassas National Battlefield Park Amendments of 1988, the Secretary may initiate a proceeding at anytime seeking in a court of competent jurisdiction a determination of just compensation with respect to the taking of such property.

“(3) Not later than 6 months after the date of enactment of the Manassas National Battlefield Park Amendments of 1988, the Secretary shall publish in the Federal Register a detailed description and map depicting the boundaries of the Addition. The map shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

“(c) The Secretary shall not allow any unauthorized use of the Addition after the enactment of the Manassas National Battlefield Park Amendments of 1988, except that the Secretary may permit the orderly termination of all operations on the Addition and the removal of equipment, facilities, and personal property from the Addition.”.

SEC. 10003. VISUAL PROTECTION.

Section 2(a) of the Act entitled “An Act to preserve within Manassas National Battlefield Park, Virginia, the most important historic properties relating to the battle of Manassas, and for other purposes”, approved April 17, 1954 (16 U.S.C. 429b-1), is amended—

(1) by inserting “(1)” after “(a)”; and

(2) by adding at the end thereof the following:

“(2) The Secretary shall cooperate with the Commonwealth of Virginia, the political subdivisions thereof, and other parties as designated by the Commonwealth or its political subdivisions in order to promote and achieve scenic preservation of views from within the park through zoning and such other means as the parties determine feasible.”.

SEC. 10004. HIGHWAY RELOCATION.

(a) **STUDY.**—The Secretary of the Interior (hereafter in this section referred to as the “Secretary”), in consultation and consensus with the Commonwealth of Virginia, the Federal Highway Administration, and Prince William County, shall conduct a study regarding the relocation of highways (known as routes 29 and 234) in, and in the vicinity of, the Manassas National Battlefield Park (hereinafter in this section referred to as the “park”). The study shall include an assessment of the available alternatives, together with cost estimates and recommendations regarding preferred options. The study shall specifically consider and develop plans for the closing of those public highways (known as routes 29 and 234) that transect the park and shall include analysis of the timing and method of such closures and of means to provide alternative routes for traffic now transecting the park. The Secretary shall provide for extensive public involvement in the preparation of the study.

(b) **DETERMINATION.**—Within 1 year after the enactment of this Act, the Secretary shall complete the study under subsection (a). The study shall determine when and how the highways (known as routes 29 and 234) should be closed.

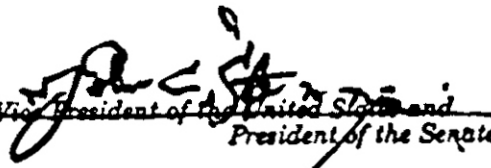
(c) **ASSISTANCE.**—The Secretary shall provide funds to the appropriate construction agency for the construction and improvement of

H. R. 4333—471

the highways to be used for the rerouting of traffic now utilizing highways (known as routes 29 and 234) to be closed pursuant to subsection (b) if the construction and improvement of such alternatives are deemed by the Secretary to be in the interest of protecting the integrity of the park. Not more than 75 percent of the costs of such construction and improvement shall be provided by the Secretary and at least 25 percent shall be provided by State or local governments from any source other than Federal funds. Such construction and improvement shall be approved by the Secretary of Transportation.

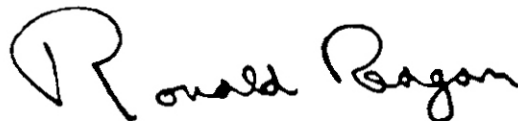
(d) AUTHORIZATION.—There is authorized to be appropriated to the Secretary not to exceed \$30,000,000 to prepare the study required by subsection (a) and to provide the funding described in subsection (c).

  
Speaker of the House of Representatives.

  
~~Vice President of the United States and~~  
President of the Senate. pro tempore

—  
APPROVED

NOV 10 1988



## APPENDIX D: ESTIMATED COSTS

Three types of costs have been quantified for the alternative plans. The first are “Class C” estimates of the elements of the alternatives; the second are the operating costs related to the elements; and the third are the life cycle costs. The following discussion defines the cost parameters, identifies the estimates, and lists the assumptions made in developing them. All costs are in 2005 dollars.

### CLASS C ESTIMATES

Class C costs are rough estimates that are developed based on the average cost of similar facilities. Actual costs may be higher or lower depending on the final design, site conditions, and the contracting agency. These estimates are preliminary and are intended to help the comparison of the relative cost of alternatives. The quantities shown for each of the alternatives have been derived from information provided by the Park staff, as well as examination of various mapping and aerial photography resources. Low and high range costs have been derived from unit costs available within the region. These cost estimates do not include all items that will be listed in the more inclusive Class C cost estimate to be developed in subsequent planning efforts. For example, the more inclusive Class C cost estimates for the visitor center would include exhibits, furnishings, and landscaping. The results of the analysis along with notes on the assumptions are shown in the following Table 5-2.

Because of the generalized nature of these cost estimates, Table 5-2 only breaks down costs

into general categories. Those categories and the items they include are listed below. Parenthetical notes indicate items that are only included in alternative (B) or (C):

- Park Enhancements: interpretive trails, bridle trails, forest cuts, and forest restoration (B).
- Recreation Zone Enhancements: picnic tables, grills, trash cans, water fountains, bicycle racks, restroom facilities, and landscaping.
- Transportation Enhancements: entrance stations and gates, intersection improvements and demolition, bridge demolition and construction (C), entry road construction (C), and horse trailer parking facility construction.
- Park Facility Enhancements: Stuart’s Hill Visitor Contact Station improvements (B), demolition of existing visitor center (C), construction of new visitor center (C), and boundary adjustments.

### ANNUAL COSTS

Annual costs include staff salaries and annual operating and maintenance costs. The present worth of the annual costs was calculated based on a 4% rate of inflation over 25 years.

### LIFE CYCLE COSTS

Life cycle cost estimates consider the long term costs related to the operating and maintenance facilities. These preliminary estimates are made by using a range of costs related to recurring maintenance and energy needs for buildings and facilities.

**Table 5-2: Range of Costs by Alternative**

	Alternative A		Alternative B		Alternative C	
	Cost Range		Cost Range		Cost Range	
	Low	High	Low	High	Low	High
<b>Initial one-time costs –Total</b>	<b>\$2,411,000</b>	<b>\$5,166,000</b>	<b>\$19,729,000</b>	<b>\$42,276,000</b>	<b>\$34,495,000</b>	<b>\$73,918,000</b>
New Development *	\$315,000	\$675,000	\$1,947,000	\$4,173,000	\$14,584,000	\$31,252,000
Major rehabilitation or replacement	\$1,671,000	\$3,580,000	\$12,139,000	\$26,011,000	\$12,139,000	\$26,011,000
Interpretive media	\$426,000	\$ 913,000	\$533,000	\$1,141,000	\$2,662,000	\$5,704,000
Other initial one-time costs (Boundary Expansion)	\$0	\$0	\$5,111,000	\$ 10,951,000	\$5,111,000	\$10,951,000
<b>Recurring Annual Costs - Present Worth **</b>	<b>\$29,313,000</b>	<b>\$62,813,000</b>	<b>\$42,648,000</b>	<b>\$91,389,000</b>	<b>\$44,334,000</b>	<b>\$95,001,000</b>
Recurring Annual Costs	\$1,662,000	\$3,561,000	\$2,418,000	\$5,181,000	\$2,712,000	\$5,811,000
<b>Replace Cost/Salvage Value</b>	<b>\$5,136,000</b>	<b>\$11,006,000</b>	<b>\$5,141,000</b>	<b>\$11,016,000</b>	<b>\$6,643,000</b>	<b>\$14,235,000</b>
<b>Total life-cycle costs (calculate for 25 years at 7% discount rate)</b>	<b>\$36,861,000</b>	<b>\$78,987,000</b>	<b>\$67,518,000</b>	<b>\$144,681,000</b>	<b>\$88,972,000</b>	<b>\$190,655,000</b>

Range of Costs – based on cost engineering standard of -30%/+50% for order-of-magnitude estimates (AACE International Recommended Practice No. 18R-97, Figure 31a (ANSI Standard Z94.0)). Example: Estimate of \$1,000,000 has an accuracy range of \$700,000 to \$1,500,000.

\* New Development in alternative B includes the demolition of the Bull Run Bridge. New Development in alternative C includes the demolition of the Bull Run Bridge and the building of a new bridge outside of the cultural landscape, and construction of a new visitor center near Stone Bridge.

\*\* The present worth of the recurring annual costs was calculated based on a 4% rate of inflation over 25 years.

## APPENDIX E: THREATENED, ENDANGERED, AND RARE SPECIES AND NATURAL COMMUNITIES

As part of this General Management Plan and Environmental Impact Statement, a request was made to the United States Department of the Interior Fish and Wildlife Service for information related to threatened, endangered

and rare plant and animal species and natural communities in and around Manassas National Battlefield Park. The Fish and Wildlife Service's response is included below.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services  
6669 Short Lane  
Gloucester, VA 23061



August 27, 2004

Project name: Manassas Nat'l Battlefield Park  
Project number: 9037 City/County, VA: Fairfax, Loudan, + Prince William

Greetings:

The U.S. Fish and Wildlife Service has reviewed your request for information on federally listed or proposed endangered or threatened species and designated critical habitat for the above referenced project. The following comments are provided under provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

You requested scoping comments. Enclosed are county lists with species fact sheets. The Service recommends surveys within appropriate habitat. If this project involves a Federal agency (Federal permit, funds, land), we encourage the Federal agency to contact this office if they determine their proposed action is likely to adversely affect federally listed species or critical habitat.

or should be within next week  
The information you requested is available at our website at <http://virginiafieldoffice.fws.gov>.

\_\_\_\_\_ We recommend that you contact **both** of the State agencies listed below since each agency maintains a different database and has differing expertise and/or regulatory responsibility.

Virginia Dept of Game and Inland Fisheries  
Environmental Services Section  
P.O. Box 11104  
Richmond, VA 23230  
(804) 367-1000

Virginia Dept of Conservation and Recreation  
Division of Natural Heritage  
217 Governor Street, 2nd Floor  
Richmond, VA 23219  
(804) 786-7951

\_\_\_\_\_ Enclosed is information about communication towers and how certain categories of work may not require further coordination.

\_\_\_\_\_ We concur that the proposed action is not likely to adversely affect federally listed species.

If you have any questions, please contact \_\_\_\_\_ at (804) 693-6694, ext. \_\_\_\_\_.

Sincerely,

for Karen L. Mayne  
Supervisor  
Virginia Field Office

**LOUDOUN COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
------------------------	--------------------	---------------

None documented

**Species of Concern (No official Federal status)**

INVERTEBRATES

Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3
Speyeria idalia	Regal fritillary	G3

VASCULAR PLANTS

Agalinis auriculata <sup>1</sup>	Earleaf foxglove	G3
Carex decomposita	Epiphytic sedge	G3
Carex polymorpha <sup>1</sup>	Variable sedge	G2G3
Hesperia attalus slossonae	Dotted Skipper	G3G4T3
Poa paludigena <sup>1</sup>	Bog bluegrass	G3
Vitis rupestris	Sand grape	G3

<sup>1</sup>This species has been documented in an adjacent county and may occur in this county.

November 23, 2002

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office



**FAIRFAX COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
<i>Haliaeetus leucocephalus</i> <sup>1</sup>	Bald eagle	LT
<u>VASCULAR PLANTS</u>		
<i>Aeschynomene virginica</i> <sup>2</sup>	Sensitive joint-vetch	LT
<i>Isotria medeoloides</i> <sup>2</sup>	Small whorled pogonia	LT

**Species of Concern (No official Federal status)**

<u>INVERTEBRATES</u>		
<i>Elliptio lanceolata</i>	Yellow lance	G3
<i>Gomphus ventricosus</i>	Skillet clubtail	G3
<i>Lasmigona subviridis</i>	Green floater	G3
<i>Pyrgus wyandot</i>	Appalachian grizzled skipper	G2
<i>Speyeria idalia</i> <sup>3</sup>	Regal fritillary	G3
<i>Stygobromus kenki</i>	Rock Creek groundwater amphipod	G1
<i>Stygobromus phreaticus</i>	Northern Virginia well amphipod	G1G2
<i>Stygobromus pizzinii</i>	Pizzini's amphipod	G2
<u>VASCULAR PLANTS</u>		
<i>Agalinis auriculata</i>	Earleaf foxglove	G3
<i>Carex decomposita</i>	Epiphytic sedge	G3
<i>Chamaecrista fasciculata</i> var. <i>macroserma</i> <sup>2</sup>	Marsh senna	G5T2
<i>Eriocaulon parkeri</i>	Parker's pipewort	G3
<i>Paronychia virginica</i> var. <i>virginica</i>	Yellow nailwort	G4T1T2Q
<i>Pycnanthemum torrei</i>	Torrey's mountain-mint	G2
<i>Sida hermaphrodita</i>	Virginia mallow	G2
<i>Vitis rupestris</i>	Sand grape	G3

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the Potomac River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

<sup>3</sup>A survey for this species is not recommended.

May 29, 2001

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**PRINCE WILLIAM COUNTY, VIRGINIA  
Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT
<u>INVERTEBRATES</u>		
Alasmidonta heterodon <sup>1</sup>	Dwarf wedgemussel	LE
<u>VASCULAR PLANTS</u>		
Aeschynomene virginica <sup>1</sup>	Sensitive joint-vetch	LT
Isotria medeoloides	Small whorled pogonia	LT
Ptilimnium nodosum <sup>1</sup>	Harperella	LE

**Species of Concern (No official Federal status)**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>GLOBAL RANK</u>
<u>INVERTEBRATES</u>		
Alasmidonta varicosa	Brook floater	G3
Elliptio lanceolata	Yellow lance	G3
Sigara depressa	Virginia Piedmont water boatmen	G1G3
Speyeria idalia	Regal fritillary	G3
<u>VASCULAR PLANTS</u>		
Agalinis auriculata	Earleaf foxglove	G3
Chamaecrista fasciculata var. macrosperma <sup>1</sup>	Marsh senna	G5T2

<sup>1</sup>This species has been documented in an adjacent county and may occur in this county.

January 2, 2004

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**KEY**

LE - federally listed endangered.

LT - federally listed threatened.

PE - federally proposed endangered.

PT - federally proposed threatened.

EX - believed to be extirpated in Virginia.

LE(S/A) - federally listed endangered due to similarity of appearance to a federally listed species.

LT(S/A) - federally listed threatened due to similarity of appearance to a federally listed species.

C - candidate species; the U.S. Fish and Wildlife Service has enough information to list the species as threatened or endangered, but this action is precluded by other listing activities.

SOC - species of concern; those species that have been identified as potentially imperiled or vulnerable throughout their range or a portion of their range. These species are not protected under the Endangered Species Act.

G - global rank; the species rarity throughout its total range.

G1 - extremely rare and critically imperiled with 5 or fewer occurrences or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.

G2 - very rare and imperiled with 6 to 20 occurrences or few remaining individuals; or because of some factor(s) making it vulnerable to extinction.

G3 - either very rare and local throughout its range or found locally (abundantly at some of its locations) in a restricted range; or vulnerable to extinction because of other factors. Usually fewer than 100 occurrences are documented.

G\_T\_ - signifies the rank of a subspecies or variety. For example, a G3T1 would apply to a subspecies of a species that is very rare and local throughout its range or found locally in a restricted range (G3) but the subspecies warrants a rank of T1, critically imperiled.

G\_Q - The taxon has a questionable taxonomic assignment.

U.S. Fish & Wildlife Service

# Bald Eagle

*Haliaeetus leucocephalus*



**Description** - The bald eagle occurs throughout the United States. It is a large bird-of-prey with dark brown plumage, a white head and tail, and a yellow bill, feet, and eyes. Juvenile eagles generally have a dark brown body, sometimes with white patches on the tail, belly, and underwings. The head and tail become completely white when full adult plumage is reached at four to five years of age.

**Life History** - The majority of Virginia's eagle population is found on the coastal plain. The bald eagle breeding season begins in mid-November when large nests are built (or the previous year's nest is repaired) usually in loblolly pine trees that are in close proximity to water. Eagles lay one to three eggs between mid-January and late March. In March, most eggs hatch and by June or July most young have fledged. However, the young will continue to use the nest for several weeks. In Virginia, during the summer and winter months, juvenile and nonbreeding adult eagles congregate along large rivers in areas with abundant food and little human



U.S. Fish and Wildlife Service  
Virginia Field Office  
6669 Short Lane  
Gloucester, Virginia 23061  
(804) 693-6694  
<http://www.fws.gov>  
August 1999

disturbance. During the day, these eagles feed and perch along the river

shoreline. In late afternoon, they move inland to roost either singly or communally. Roosts are typically located away from human disturbance and near water and a food source. Bald eagles feed primarily on fish, but will also eat carrion, waterfowl, small mammals, snakes, and turtles.

**Conservation** - The bald eagle was federally listed as an endangered species in the Chesapeake Bay Region on March 11, 1967. On July 12, 1995, the bald eagle was reclassified to threatened throughout the 48 lower states because the population had increased due to the banning persistent pesticides, habitat protection, and other recovery activities. On July 6, 1999, the bald eagle was proposed for removal from the list of endangered and threatened wildlife in the lower 48 states. This action was proposed because the available data indicated that this species has recovered. The recovery is due in part to habitat protection and management actions initiated under the Endangered Species Act. It is also due to reduction in levels of persistent pesticides occurring in the environment. If and when the eagle is no longer protected by the Endangered Species Act, it will still be protected by the Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, and state laws. Until the eagle is officially delisted, it will continue to receive protection pursuant to the Endangered Species Act. Bald eagles in the Chesapeake Bay are increasing. However, habitat destruction through urban and residential development and human disturbance in nesting, roosting, and

foraging habitats continue to be a threat.

**What You Can Do To Help** - If you

know of a bald eagle nest on or near property proposed for clearing, development, or logging please contact one of the following agencies for assistance:

Virginia Department of Game and Inland Fisheries  
P.O. Box 11104  
Richmond, Virginia 23230  
(804) 367-1000

U. S. Fish and Wildlife Service  
6669 Short Lane  
Gloucester, Virginia 23061  
(804) 693-6694

## References

U.S. Fish and Wildlife Service. 1990. Chesapeake Bay Region bald eagle recovery plan: first revision. Newton Corner, Massachusetts.

U.S. Fish and Wildlife Service. 1999. Proposed rule to remove the bald eagle in the lower 48 states from the list of endangered and threatened wildlife. Federal Register 64(128): 36453-36464.

Watts, B.D., K.W. Cline, and M.A. Byrd. 1994. The bald eagle in Virginia: An information booklet for land planners. The Center for Conservation Biology, College of William and Mary, Williamsburg, Virginia.



U.S. Fish &amp; Wildlife Service

# Tennessee River Basin Freshwater Mussels



H. Woodcut

**Description** - There are approximately 300 North American freshwater mussel species in the United States. About twelve percent of the known species have already gone extinct. One waterway with numerous mussel species is the Tennessee River Basin. The major rivers in Virginia that flow into the Tennessee River are the Clinch, Holston, and Powell. The following federally listed endangered freshwater mussels inhabit the Tennessee River Basin in Virginia:

Appalachian monkeyface  
pearlymussel (*Quadrula sparsa*)  
Birdwing pearlymussel (*Conradilla  
caelata*)  
Cracking pearlymussel (*Hemistena  
lata*)  
Cumberland bean (*Villosa trabalis*)  
Cumberlandian combshell  
(*Epioblasma brevidens*)  
Cumberland monkeyface  
pearlymussel (*Quadrula  
intermedia*)  
Drumhead pearlymussel (*Drymonia  
drumii*)



U.S. Fish and Wildlife Service  
Virginia Field Office  
6669 Short Lane  
Gloucester, Virginia 23061  
(804) 693-6694  
<http://www.fws.gov>

## October 2000

Fanshell (*Cyprigenia stegusa*)  
Fine-rayed pigtoe (*Fusconia  
canaliculata*)  
Green-blossom pearlymussel  
(*Epioblasma viridula  
gubernaculum*)  
Little-wing pearlymussel (*Pegias  
fabalis*)  
Oyster mussel (*Epioblasma  
vaporariformis*)  
Pink mucket pearlymussel (*Lampsilla  
abrupta*)  
Purple bean (*Villosa perpurpurea*)  
Rough pigtoe (*Pleurobema plenum*)  
Rough rabbitfoot (*Quadrula  
cylindrica strigillata*)  
Shiny pigtoe (*Fusconia car*)  
Tan riffleshell (*Epioblasma walkeri*)

**Life History** - These endangered freshwater mussels are relatively immobile and require clean, free-flowing water in small to large rivers with sand and gravel bottoms. These mussels are filter feeders; they feed on plankton collected from water passed over their gills. Reproduction occurs sexually. Females carry eggs in their gills. During spawning, the male releases sperm into the water column and the sperm is taken into the female through the gills. The resulting larvae (known as glochidia) are released from the female into the water column and must attach to a fish host to survive. While attached to the fish host, development of the glochidia continues. Once metamorphosis is complete, the juvenile mussel drops off the fish host and continues to develop on the stream bottom. Known fish hosts for

these species include: banded darter (*Etheostoma zonale*), banded sculpin (*Cottus caroliniae*), bigeye chub (*Hypentelus nigricans*), central stoneroller (*Campostoma anomalum*), dusky darter (*Percina sciera*), fantail darter (*Etheostoma flabellifera*), fathead minnow (*Pimephales promelas*), freshwater drum (*Aplodinotus grunniens*), greenside darter (*Etheostoma blennioides*), largemouth bass (*Micropterus salmoides*), logperch (*Percina caprodes*), mottled sculpin (*Cottus bairdi*), redline darter (*Etheostoma rufileuctum*), river chub (*Nocomis biguttatus*), sauger (*Sizostedion canadense*), smallmouth bass (*Micropterus dolomieu*), spottin shiner (*Cyprinella spiloptera*), spotted darter (*Etheostoma maculatum*), spotted bass (*Micropterus punctulatus*), telescope shiner (*Notropis telescopus*), Tennessee shiner (*Notropis leuciodus*), Tennessee snubnose darter (*Etheostoma simoserum*), walleye (*Sizostedion vitreum*), white shiner (*Luxilus albeolus*), whitetail shiner (*Cyprinella galactura*), and wounded darter (*Etheostoma vulneratum*). Fish hosts have yet to be determined for many freshwater mussel species. These fish require the same habitat as the mussels. If the fish and their habitat disappear, the mussels will also disappear.

**Conservation** - More than 70% of freshwater mussels in the United States are in need of protection. The main causes of decline of these species are siltation, impoundment of rivers, water pollution, and invasion of non-native species. Siltation and

sedimentation from farming, mining, and other land-use practices also adversely affect mussels. Excessive siltation degrades water quality and substrate, clogs gills, reduces feeding efficiency and growth, and can eventually smother mussels if sufficient accumulation occurs. In most instances, the combined effects of numerous contaminants and induced physiological stresses are the ultimate cause for mortality in a population of mussels.

**What You Can Do To Help** - If you reside on property that borders a stream or other waterway, avoid using chemicals or fertilizers. To help control erosion and runoff, maintain a buffer of natural vegetation along streambanks. Install fencing to prevent livestock from entering the stream to reduce trampling of mussels, siltation, and input of waste products. Protecting

water quality is the most effective way to conserve mussels.

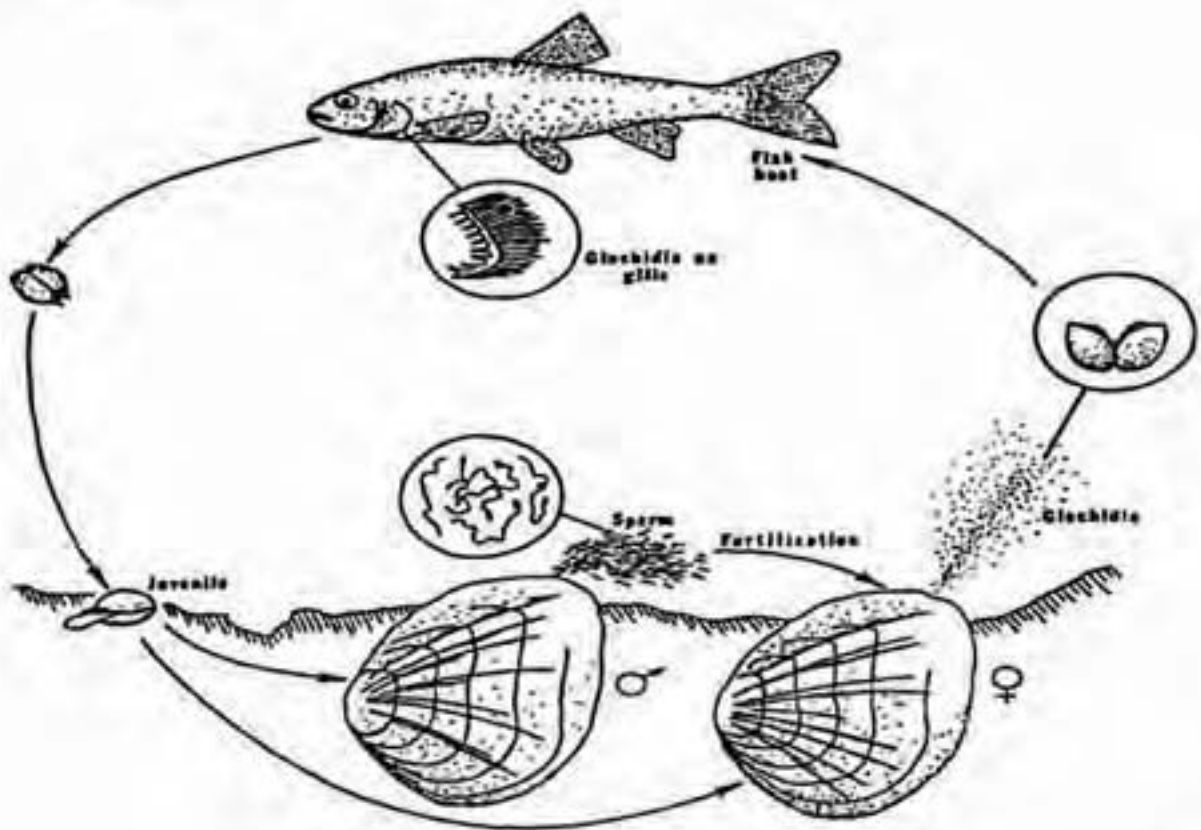
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U.S. Fish &amp; Wildlife Service

# Sensitive Joint-Vetch

## *Aeschynomene virginica*



**Description** - The sensitive joint-vetch is an annual legume native to the eastern United States. Populations currently exist in Maryland, New Jersey, North Carolina, and Virginia. The historical range for the species extended to Delaware and Pennsylvania. In Virginia, populations are found along the Potomac, Mattaponi, Pamunkey, Rappahannock, Chickahominy, and James Rivers and their tributaries. This plant usually attains a height of three to six feet in a single growing season, but may grow as tall as eight feet. The flowers are yellow, streaked with red and the fruit is a pod, turning dark brown when ripe.

**Life History** - The joint-vetch occurs in fresh to slightly brackish tidal river systems, within the intertidal zone where populations are flooded twice daily. It typically occurs at the outer fringe of marshes or shores; its presence in marsh interiors may be a result of nutrient deficiencies, ice scouring, or muskrat

herbivory. The sensitive joint-vetch is found in localities where plant diversity is high and annual species are prevalent. Bare to sparsely vegetated substrates appear to be a habitat feature of critical importance for establishment and growth of this species. Plants flower from July through September and into October in some years. Fruits are produced from July through late October, concurrent with flowering.

**Conservation** - The sensitive joint-vetch was federally listed as a threatened species on June 19, 1992. Threats to the species include sedimentation, competition from non-native plant species, dams, dredging, filling, recreational activities, shoreline stabilization, shoreline structures, road and bridge construction, commercial and residential development, water withdrawal projects, water quality degradation, agricultural practices, introduced pest species, mining, timber harvest, over-visitation, declines in muskrat populations, rise in sea level (this may also be a result of natural cycles), and collection. Natural threats are often identified with disturbances, such as wave and ice action associated with severe storm events, competition, herbivory, channel migration, sea level rise and natural sedimentation processes. Adequate habitat conservation for this species will only be achieved through on-site protection of marshes supporting plant populations when coupled with protection of the natural ecological processes responsible for creating and maintaining habitat for

the sensitive joint-vetch.

### What You Can Do To Help -

Avoid the use of herbicides in or near waterways. If you are planning construction or stabilization activities along the shoreline in one of the counties indicated on the attached map, please contact the U.S. Fish and Wildlife Service.

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<http://www.fws.gov>  
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U.S. Fish & Wildlife Service

# Small Whorled Pogonia

*Isotria medeoloides*



**Description** - The small whorled pogonia is a herbaceous perennial orchid. It has a widely scattered distribution in the eastern United States along the Atlantic coast from Maine to Georgia with outlying occurrences in the midwest and Canada. This species has pale green, elliptical leaves, usually five or six, that grow in a single whorl at the top of a hairless, grayish-green stem. The one or two flowers per plant are yellowish-green, unscented, and form in the center of the whorl.

**Life History** - In Virginia, the small whorled pogonia is found in ordinary looking third-growth upland forests with an open understory and a closed canopy where the topography is typically moderately sloping or almost level. The plants are usually associated with decaying vegetative matter such as fallen trunks and limbs, leaf litter, bark, and tree roots. The pogonia is found in soils that are acidic sandy loams with low nutrient

content. The flowers appear in late April to mid-May. The small whorled pogonia reproduces primarily through self-pollination and occasionally vegetatively. It is often confused with the Indian cucumber-root (*Medeola virginiana*) and the large whorled pogonia (*Isotria verticillata*). The Indian cucumber-root has deep green leaves with a stem that is thin, hairy, and wiry. The large whorled pogonia has a reddish-purple stem and dark green leaves, its flower is reddish-purple.

**Conservation** - The small whorled pogonia was federally listed as an endangered species on September 10, 1982. It was reclassified as threatened on November 7, 1994. This was possible because at the time of reclassification 61% of the viable populations had been protected. The small whorled pogonia and its habitat continue to be threatened, directly and indirectly, by residential and commercial development. The upland habitat where it is found is seldom protected by federal or state laws unless it occurs on federally-owned property. Without voluntary landowner protection many pogonia populations have been and will be destroyed. Other threats to this species are collection by plant enthusiasts and browsing by white-tailed deer and invertebrates.

**What You Can Do To Help** - If you find a plant that appears to be the small whorled pogonia, take note of the location and photograph the plant, if possible. Please do not remove the plant!

Contact one of the following agencies for assistance:

Virginia Department of Agriculture  
and Consumer Services  
Office of Plant Protection  
P.O. Box 1163  
Richmond, Virginia 23209  
(804) 786-3515

Virginia Department of  
Conservation and Recreation  
Division of Natural Heritage  
217 Governor Street, 3rd Floor  
Richmond, Virginia 23219  
(804) 786-7951

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## APPENDIX F: MANASSAS NATIONAL BATTLEFIELD PARK BYPASS ALTERNATIVE ROUTES

A wide range of improvement alternatives was considered for the Bypass Study. The alternatives were identified and evaluated through an iterative screening process in cooperation with citizens, localities, and State and federal agencies. Except for the no-action alternative, alternatives deemed not reasonably capable of meeting the identified needs for the study were eliminated from further consideration. While required by National Environmental Policy Act regulations, the no-action alternative was also studied in detail

because it serves as a baseline for comparing the other alternatives.

The range of alternatives considered in detail encompasses the No-Action Alternative, and various build alternatives. The alternatives considered in detail are the No-Action Alternative (roads would remain open in the Park), and Candidate Build Alternatives A-G (Bypass Study, 2-1). Map A-5 shows these build alternatives, including the preferred alternative — alternative D.



MAP F-1: BYPASS STUDY ALTERNATIVE

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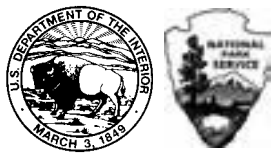
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As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.