IDENTIFYING COLLABORATIVE OPPORTUNITIES FOR ENVIRONMENTAL CONSERVATION AND HISTORIC PRESERVATION

by

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I. Abstract

Efforts to preserve open space in the United States have been conducted by land trusts, government programs, and private landowners. Most land trusts protect specific resources or environmental values, such as wetlands or Civil War battlefields. In a time of economic recession, budget cuts, and reduced funding from grants and private donations, land conservation efforts have waned. Yet, the need for conservation is as pertinent as ever, and the opportunity is ripe given the 150th Anniversary of the Civil War (2011-2015). Collaborative partnerships between land trusts and environmental organizations can lessen these hardships and present mutually beneficial opportunities for conservation.

This project presents a strategic GIS approach, the Connecting Future Partners Process (CFPP), which layers “shapefiles” of various environmental values within federally-defined Civil War battlefield boundaries. By utilizing this process, historic land trusts can identify environmental values present on battlefields and establish partnerships with conservation organizations that advocate for those resources. Focusing on sites within Virginia, the results of this analysis show a wide variety of environmental features on battlefield sites, including wetlands, prime soils, waterways, and endangered species habitat, providing multiple opportunities for collaboration.

The benefits of working together to protect both environmental and historic features are significant: increased capacity to influence legislators and leverage new resources from donors and grants, stronger public education campaigns, and more effective land management. The application of this strategic approach is not limited to just Civil War battlefields, but can be utilized wherever cultural or historic events have a strong geographic connection to the land.
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III. Introduction

Open space protection in the United States has been conducted by a myriad of non-profit organizations, government programs, and private land owners. Non-profits like the Piedmont Environmental Council, Triangle Land Conservancy, Trout Unlimited, and hundreds more have led the charge to protect lands and waters with environmental value. Others, like the Civil War Trust, Shenandoah Valley Battlefields Foundation, and Richmond Battlefields Association have focused on protecting battlefields and sites of historic significance to the American Civil War. Their work to promote environmental conservation and historic preservation has been exceptional and valuable. However, development and fragmentation continues to threaten open space and much work remains.

One way to improve the efficacy of these organizations is to consider the notion that environmental conservation and historic preservation are not mutually exclusive initiatives. All land has multiple values, whether from the role it played in the Civil War, riparian buffers that protect water quality, soils that grow food, habitat it provides wildlife, scenic views it offers residents and visitors, or many others. Some crossover has already been evident. For instance, the successful protection of Civil War battlefields in the modern era stems from the identification of other environmental values, particularly wetlands.

Land conservation has faced an uncertain playing field lately, however. The economic downturn has had broad reaching effects, even to the world of preservation. Funding for federal and state government programs for open space acquisition is being slashed, and donors and foundations are giving less to the non-profits on the front line. Conservation dollars are being stretched thinner by competing interests and opportunities. It is a conundrum that at the same time financial resources have dwindled, opportunities to
acquire once unavailable properties have increased as a result of reduced land prices and delayed development.

In order to take advantage of discounted land values and compete for scarce conservation dollars from donors, foundations, and government grants, traditionally disparate land trusts and organizations can take proactive steps to identify new partners and forge alliances. These relationships can provide new opportunities to protect open space that achieves each respective partner’s mission. This is especially true given the heightened awareness and public education campaigns surrounding the current Civil War sesquicentennial (2011 to 2015).

Land trusts already use a variety of tools and techniques to secure funding and protect cherished land, but new tactics must be embraced to stay effective and create opportunities. One technique is to utilize a new geographic information system (GIS) process developed specifically for this project to inspire partnerships and collaborative efforts. The new mapping-based strategy, called the Connecting Future Partners Process (CFPP), enables land trusts, specifically those dedicated to protecting Civil War battlefields, to identify other values that exist on relevant parcels. With this knowledge, preservation organizations can meet the unrealized potential of partnerships: strong joint grant applications, more effective lobbying for land acquisition funding, increase public education, improve land management, and secure critical cultural and environmental sites.

This project identifies how organizations can form new partnerships, the opportunities they present, as well as the challenges. It also answers the question of why we should protect Civil War sites, and how much is enough? Finally, it illustrates additional uses for this tool in protecting lands other than those associated with the Civil War.
Although Civil War battles occurred in 25 states and the District of Columbia, this study and GIS strategy focus mainly on Virginia. As home to 122 major battlefields, diverse and unique ecosystems, and well-established conservation practitioners, Virginia offers a comprehensive setting in which to propose and analyze this new approach to land conservation. However, this method can be scaled-up and utilized in all 26 jurisdictions with Civil War sites, and beyond.

IV. Why We Protect Battlefields

Americans care deeply about the Civil War and its battlefields. In 1992 alone, over 9.2 million people visited National Park Service (NPS) battlefields, many of whom are descendants of the 3 million men who fought in the conflict.\(^1\) In 2000, there were roughly 50,000 Civil War reenactors spending their weekends recreating battles and camp scenes across the country.\(^2\) Tony Horwitz, the Pulitzer Prize winning author of “Confederates in the Attic,” wondered why the great-grandson of immigrants with no familial association to the Civil War would be fascinated by it. He found that the Civil War maintains a considerable footprint in our national consciousness. Its consequences, and the lessons derived from them, affect those with no direct link, and offer a connection to American


society even for new immigrants.\textsuperscript{3} So, why should we protect the battlefields of this conflict? The reasons to protect the land differ depending on who you ask, but they can be categorized as having cultural, economic, and environmental and public policy motives.

\textit{The Power of Place}

“\textit{Through those motels and fried-chicken stands, Pickett’s men charged. The first line faltered in the Burger King parking lot and regrouped next to the Tastee Freeze.}”\textsuperscript{4}

-Tour guide standing on Cemetery Ridge pointing to the west of Gettysburg National Military Park, 1991

Reuben Rainey, Professor Emeritus at the University of Virginia, argues that preservation is not a “once-for-all event.” Instead, it is a continuous process in which each generation “reinforces, revises, or expands its cultural memory through interaction with landscapes of the past.”\textsuperscript{5} Battlefields serve as tangible evidence of some of the most significant events in American history and evoke reflection about the role of war in our cultural history. In doing so, they preserve and transmit the consciousness of the past that is essential for establishing our cultural identity; they help maintain continuity.\textsuperscript{6}

Rather than glorify war, battlefields are places of contemplation on the courage of the combatants and the dreadful toll of combat.\textsuperscript{7} They have the power to evoke reflection and challenge us to recall basic realities of historical experience – death, suffering, and

\textsuperscript{3} Tony Horwitz, \textit{Confederates in the Attic} (Vintage, 1999) 3-5.
\textsuperscript{6} Ibid., 78.
\textsuperscript{7} Andrus, \textit{Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields}, 3.
sacrifice. Some Americans visit battlefields to reflect on the circumstances that turned their ancestors against one another. “They treasure the meadows and monuments, forests and fortifications, that honor the soldiers, teach our history and lend character to our communities.” It is one thing to read about conflicts, view a photograph, or watch the film “Gettysburg” or a Ken Burns documentary. It is completely different to visit the very ground. Battlefields are teachers that bring history to life, inspire, and sober. Americans are fascinated with the Civil War, not to understand the “genealogy of every Civil War general’s horse,” as a former Director of the National Park Service exasperatedly stated, but because of its place as a pivotal moment in our national and cultural identity.

Perhaps General Joshua Chamberlain said it best at the dedication of the monument to the 20th Maine Regiment at Gettysburg in 1889 when he presciently remarked:

"In great deeds something abides. On great fields something stays. Forms change and pass; bodies disappear, but spirits linger, to consecrate ground for the vision-place of souls. And reverent men and women from afar, and generations that know us not and that we know not of, heart-drawn to see where and by whom great things were suffered and done for them, shall come to this deathless field to ponder and dream; And lo! the shadow of a mighty presence shall wrap them in its bosom, and the power of the vision pass into their souls." 

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9 Porter, Dollar$ and Sense of Battlefield Preservation X.
10 Ibid., 93.
“As a nation we are beginning to understand the values and necessity of blending economic and preservation goals.”

-Patrick Noonan, Chairman, The Conservation Fund

Protecting Civil War battlefields provides significant tangible benefits that help local, especially rural, economies. Battlefields are income generators: they provide direct investment from heritage tourists (which also creates jobs), historic open space raises the value of properties nearby, and battlefields require little capital expenditures or infrastructure. The economic benefits of preserving these sites are substantial, and are cause for any locality or government to support these efforts.

Heritage tourism, which is defined as providing “encounters with nature or feeling part of the history of a place,” is a major economic driver for states with protected historic sites. For instance, a study by the Virginia Tourism Corporation in 2008 found that heritage tourists stay an average of 3.6 nights per visit, spending $311 per trip, compared to 2.1 nights and only $145 spent for non-heritage tourists. A 1998 economic profile of the Virginia Civil War Trails, which are automotive paths that link sites and display interpretive signage at each stop, estimated that 16,500 people had completed at least one of the five trails. These tourists spent $66 per person per day, as opposed to $42 for a

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13 Porter, Dollar$ and Sense of Battlefield Preservation 111.
normal traveler, generating almost $1.1 million in revenue.\textsuperscript{17} As a whole, visitors spend $17.7 billion in Virginia each year, with a quarter of all tourists visiting Civil War sites, making history and cultural sites the number one attraction in the state.\textsuperscript{18}

Battlefield tourism has grown steadily over the last ten years. Between 2000 and 2011, tourist visits increased from:

- 260,000 to 390,000 at Shiloh National Military Park (NMP) in rural Tennessee
- 489,000 to 1.04 million at Fredericksburg-Spotsylvania NMP in Virginia
- 287,000 to 385,000 at Antietam National Battlefield in rural Maryland.\textsuperscript{19}

These visits have provided a considerable boost to local and rural economies. The New Market Battlefield in the rural Shenandoah Valley delivered $266,000 in state and local tax revenue from $1.7 million in tourist expenditures in 2003. Even more important for the community, it created 34 tourism-related jobs.\textsuperscript{20} These expenditures benefit entire communities surrounding battlefields; heritage tourists stay at Bed and Breakfasts or historic hotels, eat at local restaurants, take tours from local guides, and fill up on gas.\textsuperscript{21}

The protection of these sites has additional indirect economic benefits for localities. Open space, especially those with historic value, increases nearby property values, and is a significant factor in corporate relocation decisions.\textsuperscript{22} It is no secret that people want to live where there is community identity, culture, and open space. Working lands, which most intact battlefields continue to be, are net contributors to government budgets; they use

\begin{itemize}
\item Hollberg, \textit{Better Models for Development in the Shenandoah Valley} 2010 94.
\item W. Denman Zirkle, Shenandoah Valley Battlefields Foundation, Personal Interview, 7 Feb. 2012.
\item Hollberg, \textit{Better Models for Development in the Shenandoah Valley} 2010 3.
\end{itemize}
only $0.37 in community services for every dollar paid in taxes. On the other hand, residential developments receive on average $1.16 for every dollar paid in.\textsuperscript{23} Smart growth and open space protection prevent excess infrastructure expenses and drains on budgets. Furthermore, they protect agricultural and forest lands, which contributed $79 billion to the Virginia economy in 2006.\textsuperscript{24}

\textit{Environmental and Public Policy}

\begin{quote}
"By protecting these battlefields, we are also protecting wildlife habitats and water quality...creating open space for community recreation [or] protecting valuable working farmland."
\end{quote}

-Douglas Domenech, Virginia Secretary of Natural Resources

Battlefield protection is an important contributor to achieving broader government policies aimed at protecting open space, water quality, and increasing recreational access. Securing these sites means protecting additional environmental and public values. It is true that many of the parcels available are often each only several hundred acres in size or less. However, they all contributed to meeting former Virginia Governor Kaine’s successful initiative to protect 400,000 acres of open space in the state. Since most battlefields in Virginia fall within the Chesapeake Bay watershed, they also helped achieve the goal of the inter-governmental Chesapeake Executive Council’s \textit{Chesapeake 2000} initiative to protect


\textsuperscript{24} Hollberg, \textit{Better Models for Development in the Shenandoah Valley 2010} 8.

\textsuperscript{25} Network, \textit{Virginia Conservation Briefing Book 2012: Our Common Agenda} 32.
20% of the watershed by 2010.\textsuperscript{26} Newly preserved battlefields will help meet Governor McDonnell’s renewed goal to protect an additional 400,000 acres of open space in Virginia, in addition to the objectives set forth by President Obama’s Executive Order No. 13508 to protect 2 million acres of open space in the watershed by 2025.\textsuperscript{27}

These initiatives have all been undertaken to stem the loss of open space, agricultural lands and prime farm soils, and protect water quality throughout the Bay watershed. From 1997 to 2007, Virginia lost 650,000 acres of agricultural lands, and from 1982 to 2007, one of eight farm acres (185,854) in the Shenandoah Valley, the former breadbasket of the Confederacy, was converted to non-farm uses.\textsuperscript{28} The U.S. Forest Service estimates that the Chesapeake Bay is losing forestlands at a rate of 100 acres per day.\textsuperscript{29}

The conversion of these working lands, and the resulting increase in nutrient and sediment pollution, has stressed riparian buffers and had severe consequences for water quality in the Bay and its tributaries. The Shenandoah River, a tributary of the Chesapeake Bay, was named one of the most endangered in the nation by American Rivers, and dead zones, from excess nutrient loading, continue to expand in the Bay.\textsuperscript{30}

The Chesapeake Bay

\textsuperscript{28} Hollberg, \textit{Better Models for Development in the Shenandoah Valley 2010} 8 and Hutchinson, \textit{Battlefield Landowners Guide} 2.
\textsuperscript{30} Hollberg, \textit{Better Models for Development in the Shenandoah Valley 2010} 46.
Commission has stated that one of the greatest opportunities to reduce nutrient loading, and remove the Bay from the Clean Water Act’s impaired waters list, is to conserve agricultural lands that implement best management practices (BMPs). Many farms have riparian zones, floodplains, or wetlands, and protecting them “offer[s] the biggest bang for the buck” in improving water quality. Since most battlefields remain in agricultural production as they did during the Civil War, and have remain undeveloped because so, protecting those that implement BMPs contributes to this effort.

The Shenandoah Valley region is the worst in the state for having little or no riparian buffer on its farms. It has 39% of the state’s polluted stream miles, yet only 14% of the state’s land area. Forested riparian buffers can remove 95% of sediment, 80% of nitrogen, and 78% of phosphorous from waterways. One recently protected site in Shenandoah County, VA, the 174-acre working “Island Farm” which is part of the Cedar Creek Battlefield, fronts along Cedar Creek for about 1,000 feet and holds the headwaters of an unnamed perennial stream that is a significant tributary of the aforementioned waterway. Cedar Creek is also a major tributary of the North Fork of the Shenandoah River, which flows into the Potomac and then to the Chesapeake Bay. The site also contains nearly 4 acres of pollutant-filtering wetlands, which can remove 70-90% of nitrogen, along with significant levels of phosphorous and sediment in those waters.

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33 Andrus, Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields 3.
Another unique role battlefield protection plays is in biodiversity and ecosystem conservation. Virginia ranks in the top 10 among all states in globally rare plants and animals.\textsuperscript{36} Battlefields around Port Republic, VA protect sinkhole ponds, an unusual and rare ecosystem with a plant community listed as a natural heritage resource by the Virginia Department of Conservation and Recreation. This site, and others like it, also provide habitat for numerous rare species including neo-tropical migrants, forest interior nesting birds, Black-fruited spikerush, Northern St. John's-wort, Buxbaum's sedge, Blackfoot quillwort, Northern bog clubmoss, and the globally rare Virginia sneezeweed.\textsuperscript{37}

Finally, these parcels can also protect habitat connectivity and provide needed open space in rapidly developing suburban and exurban communities. In Washington, D.C. metro localities in Virginia, like Frederick, Culpeper, Greene and Loudoun Counties, new public parks at the battlefields of Kernstown (315 acres), 3\textsuperscript{rd} Winchester (575 acres), Gilbert’s Corner (154 acres), Rappahannock Station (26 acres), Brandy Station (640 acres), and Stanardsville (513 acres) will provide new oases of open space and recreational opportunities for residents and visitors.\textsuperscript{38} The 3\textsuperscript{rd} Winchester site, for example, will connect a five-mile, non-motorized interpretative trail with the Redbud Run Greenway and Winchester Green Circle trail projects, which hope to provide a pedestrian and bike beltway around the City of Winchester.\textsuperscript{39} The Rappahannock Station Battlefield Park in Remington will provide needed public access to the Rappahannock River, helping to

\textsuperscript{36} Hollberg, Better Models for Development in the Shenandoah Valley 2010 20.
\textsuperscript{37} Hutchinson, Battlefield Landowners Guide 32.
achieve another goal of the previously mentioned Executive Order No. 13508 to add 300 public access sites along the Chesapeake Bay and its rivers.\textsuperscript{40}

\section*{V. A Brief History of Battlefield Protection}

In order to understand the future of historic and environmental preservation, it is important to recognize the evolution of battlefield protection from the Civil War onward. The motives behind conserving these sites have varied over time, as have the tools used to secure them. Originally acquired as memorials for Civil War veterans, battlefield protection in the modern era was galvanized through the recognition of alternative environmental values. Its evolution has spawned the historic land trusts that currently operate, and provides the framework for how conservation is executed today. Initial preservation activity revolved around the feelings of patriotism after the Civil War and World War I. With the heightened interest surrounding the Civil War due to the 150\textsuperscript{th} Anniversary (2011-2015), there may be greater opportunities for protection over the next three years.

\textit{From the Civil War to World War II}

The first efforts to preserve Civil War battlefields occurred in the midst of that conflict. Just four months after the Battle of Gettysburg, President Lincoln declared its bloodied fields consecrated by the men who fought there, and hallowed by those who gave their lives on it.\textsuperscript{41} The Gettysburg Battlefield Memorial Association, chartered by the State Council, \textit{PEC Annual Report 2009} 15 and Conservancy, \textit{Conserving Chesapeake Landscapes} 9.

\textsuperscript{40} Andrus, \textit{Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields} 3.
of Pennsylvania in April 1864, one year before the end of the war, set out to “hold, and preserve, the battlegrounds of Gettysburg...with the natural and artificial defenses, as they were at the time of said battle...to commemorate the triumphs of their brave defenders.”

During the two decades following the war, the motivation to protect these sites was to establish a place of memory and appreciation for the acts of soldiers who fought and died to protect the Union, and inspire dedication to patriotic ideals. It is also why hundreds of monuments to individuals and units of the army populate these early-protected sites.

In the post-Reconstruction period, battlefields took on a new symbolic role, resulting in additional government involvement to protect this sacred ground. As the United States was developing into a world power, a deep feeling of nationalism swept the country. Expressions of national unity and patriotism took form in rituals of reconciliation between Union and Confederate veterans. Held on battlefields, these reunions were powerful events for veterans to remember their instigations and passions. As Oliver Wendell Holmes said, “in our youths our hearts were touched with fire. It was given to us to learn at the outset that life is a profound and passionate thing.”

In response to the outpouring of sentiment and burgeoning interest in battlefields, Congress appropriated funds to mark the positions of Confederate and Union troops at Gettysburg. As veterans’ activity continued, Congress established Chickamauga-Chattanooga in Georgia and Tennessee as the first National Military Park in 1890, followed

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44 Ibid., 73.
45 Andrus, Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields 3.
by three more: Shiloh (1894), Gettysburg (1895), and Vicksburg (1899).\textsuperscript{47} Economics and tourism also played a role in Congress’ moves to protect these sites; railroad companies were interested in promoting visits and lobbied Congress to create the parks and erect monuments adjacent to their rights of way.\textsuperscript{48}

The most significant aspect of the initial government effort to protect battlefields was the method it used. In order to acquire the Chickamauga-Chattanooga sites, Congress, for the first time, authorized the acquisition of private property from landowners through direct purchase or condemnation through eminent domain. After its action was upheld by the Supreme Court in \textit{U.S. v. Gettysburg Electric} in 1896, this became the norm for protecting \textit{large tracts} of historic land for the next 90 years. In doing so it set Congress on a path towards large expenditures and unforeseen consequences in the future.\textsuperscript{49}

After the fervent efforts of the 1890s, interest in battlefield protection waned until the surge in patriotism and prosperity after World War I.\textsuperscript{50} Once again, government ventured into the business of acquiring historic land for preservation. However, instead of buying large tracts, it purchased thin strips of land along the line of troop positions, fenced them off, and built access roads. The remainder of the battlefields were left in the hands of private owners and mostly persisted as farmland. The “Antietam Plan,” as it was called, was much more popular with Congress because it was less costly, and became the primary method for battlefield preservation for several decades.\textsuperscript{51} However, since this approach

\textsuperscript{47} Rainey, "The Memory of War: Reflections on Battlefield Preservation," 73-74.
\textsuperscript{48} Andrus, \textit{Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields} 3.
\textsuperscript{49} Andrus, \textit{Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields} 2.
\textsuperscript{50} Rainey, "The Memory of War: Reflections on Battlefield Preservation," 74.
secured only small parcels, many federally protected battlefields remain highly fragmented and leave significant portions of historically significant land vulnerable to development.

In 1926, in the prime of post-World War I nationalism, Congress asked the War Department to survey all battlefields in the United States and make recommendations as to which should be preserved or marked with information tablets. Based on their findings of 3,400 military encounters, 12 new national military parks were added, and seven more since NPS took over battlefield management from the War Department in 1933.\(^52\) Both during and after the New Deal era, the federal government continued with some small scale acquisitions, but it was mostly states that protected larger tracts.\(^53\) After World War II, Congress authorized the NPS \textit{Mission 66} program, which provided some funds for land acquisition, as well as for commissioning new visitors centers.\(^54\)

\textit{Modern Era: A Turning Point}

Battlefield protection and advocacy continued at a sporadic level until 1988, when Annie Snyder started the movement to protect battlefields as we know it.\(^55\) Hazel/Peterson Companies had submitted a plan to build a regional mall on 542 acres of the Second Manassas battlefield.\(^56\) The site would have also been visible from many points within the battlefield, and would require road expansion and new interchanges to accommodate the additional 80,000 cars per day. Annie Snyder and her co-preservationists held rallies and


\(^{55}\) Hawke, et al, Personal Interview.

mailed information to media outlets, citizens, and sympathetic organizations across the country. Volunteers contacted their Congressmen, and media, national organizations, and influential citizens began to take notice.  

Snyder’s “Save the Battlefield Coalition” achieved some of its first success through the recognition and embrace of environmental features on the site. The Coalition argued that at least fifty distinct wetlands existed on the 542-acre tract, and that disturbing them would require Section 404 permits from the Army Corps of Engineers under the Clean Water Act. Obtaining pro-bono law services, these legal proceedings temporarily halted the 24-hour construction crews at the development, and the Coalition outreached to other federal agencies, forcing them to respond to their concerns. After a series of delayed compromise plans, individual members of Congress got involved, dramatically shifting the momentum towards Snyder’s group.

Rep. Mike Andrews (D-TX) declared his support for protecting the site after touring the battlefield with friend and noted Civil War historian Dr. Frank Vandiver. Enlisting his colleague, Rep. Bob Mrazek (D-NY), they introduced H.R. 4526 to authorize the government to purchase the tract and incorporate it into the existing national park. In order to move the bill forward, National Parks and Public Lands committee chairman Rep. Bruce Vento required them to find 200 co-sponsors. Camping out on the House floor, and aided by media attention and citizen outreach, they soon had more than the 200 needed.

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58 Ibid., 10b.
59 Ibid., 10d.
Rep. Frank Wolf (R-VA) also weighed in and proposed H.R. 4691, which would authorize a legislative taking, allowing the federal government to take control of the property and compensate landowners at a later date. The senior member of the Virginia delegation, Sen. John Warner, energized acquisition efforts when he proposed a comprehensive compromise plan to obtain and compensate for the majority of the historic land, and allow the developer to build an office park on the remainder. With support from Sen. Dale Bumpers (D-AR), the chairman of the Public Lands Subcommittee on National Parks and Forests, and the presentation of a 75,000 signature petition from Annie Snyder, the compromise plan turned sharply towards Rep. Wolf’s legislative taking proposal.

After a lively debate on the legislative takings issue, Sen. James McClure (R-ID), an opponent of the plan, posited that “there is not a single battlefield free” from the pressures of development, and wondered when this battle over land would end. Instead of rallying opposition, his concluding remark, that “perhaps the most significant battle of the entire Manassas Battlefield with respect to the William Center tract is that being fought now,” galvanized the Senate towards the Wolf plan. Action was needed because this seemed to be one of the few places Congress could actually save.

In the end, the federal government paid nearly $130 million to purchase this land, but left some wondering if the price was too steep. Much of the American public, preservationists and historians, and members of Congress quickly realized that last-minute federal acquisition is too costly and divisive of a long term preservation strategy. While this fight brought together a coalition of preservation groups, each of whom benefited from

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60 Zenzen, Battling for Manassas, 10d.
61 Ibid., 10e.
the spotlight and saw increased membership, one coalition member recognized that “eleventh-hour-and-fifty-ninth-minute rescue operation[s], at a cost that is so astronomical, is simply not a blueprint” for preserving battlefields.63

Congress and preservation advocates realized they had to seek other methods for protecting battlefields. Although the first national battlefield preservation organization, the Association for the Preservation of Civil War Sites (APCWS), already existed, founded just a year before the Manassas confrontation in 1987, there were only a handful of local groups and Civil War Roundtables for history enthusiasts.64 The Williams Center incident and the legislation that followed marked the beginning of the creation of battlefield preservation organizations both within the federal government and non-profit sector.65

Learning from this episode, Congress passed legislation sponsored by Sen. Dale Bumpers and Rep. James Olin (D-VA) to create the Civil War Sites Advisory Commission (CWSAC) in November 1990. Similar to the 1926 War Department study, CWSAC was tasked with identifying the nation’s historically significant Civil War sites.66 Their mission was to determine the relative importance, condition, and threats to the integrity of battlefields, and recommend alternatives for their preservation and interpretation.67

With over 10,500 documented Civil War military actions, the Commission chose to focus on “principal military events and the battlefield lands associated with those events.”68 Their findings, delivered in July 1993, identified 384 sites and the landscapes tied to those

63 Zenzen, Battling for Manassas, 10f.
65 Zenzen, Battling for Manassas, 10f.
actions in 25 states and the District of Columbia, the majority of which had little to no protection. It also included a review of the integrity, threats, and descriptive and ownership data of each site, which were translated into a ranking system to grade the military importance of a site, its current condition, and level of anticipated threat. Finally, the report made recommendations on how to better protect battlefields through partnerships, education, and encouraging private sector involvement.69

The same year as the creation of CWSAC, Secretary of the Interior Manuel Lujan, Jr. created the American Battlefields Protection Program (ABPP) within NPS. Its goal is to avoid "last-minute, reactive preservation and to promote community-based solutions,"70 and to provide leadership in building private-public partnerships that result in land conservation without federal land purchases.71 Their work, funded by line item grants within the Land and Water Conservation Fund (LWCF), provides guidance, technical support, and modest seed and matching-grant monies for preservation, planning, interpretation, and education to local governments and private actors.72

The goal of the program is to foster local stewardship for protecting battlefields.73 It is through this program, and its mission, that directly led to the creation of many local and regional battlefield preservation organizations “with whom the ABPP now works.”74 National groups, like the Civil War Trust, which merged with APCWS, have protected over

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71 Bearss, "Foreword," 3.
73 Porter, Dollar$ and Sense of Battlefield Preservation 34.
32,000 acres, along with thousands more by local groups.\textsuperscript{75} By 1997, this dynamic structure allowed ABPP to enhance protection at more than 90% of Priority I battlefields.\textsuperscript{76}

In addition to grant money from ABPP/LWCF, the Intermodel Surface Transportation Efficiency Act (ISTEA or Transportation Act), authorized by Congress in 1991, has funds to aid in the acquisition and preservation of battlefields. Of the federal funds authorized for highways, safety, and mass transportation, 10% must be used for transportation enhancement (TE) projects; historic preservation and conservation are eligible for TE dollars. These $44 million in grants ($24 million in federal funds, matched by $20 million from other sources) have provided more revenue for battlefield preservation than any other federal program and has been renewed in each reauthorization of the bill.\textsuperscript{77}

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\textbf{VI. What is Left to Protect and When is it Enough?}

Given the history of federal action and funding for battlefield acquisition over the last 150 years, it is tempting to think that Civil War battlefields have been completely protected. As of 1999, 29 battlefields, numerous forts, and national cemeteries have been preserved at the federal level, in addition to the more than 40 battlefields protected by states. While this may seem impressive, many battlefields remain unrecognized and

\textsuperscript{75} Trust, \textit{Civil War Trust History}.
\textsuperscript{76} From Townsend, "Catalyst for Battlefield Preservation: The CWSAC Study," 10:

\textit{Priority I} is defined as having a military importance rating of A or B, Good or Fair integrity, and High or Moderate threats, from Townsend, "Catalyst for Battlefield Preservation: The CWSAC Study," 10.

\textsuperscript{77} Gossett, "Working Together," 5.
unprotected. For these sites that have not yet been protected, it is easy to recall former Sen. McClure’s question if this battle over land will ever end. Is it necessary to protect each remaining site and acre associated with the Civil War?

Although close to a final answer, ABPP is not completely sure how much is left to protect. Their method, using GIS, entails mapping each battlefield and analyzing the landscape integrity using national register criteria. The most basic test of integrity is “whether a participant in the battle would recognize the property as it exists today.” Once they have determined what “good” land remains, they will overlay this federal, state, local, and non-profit information of already protected lands. Then, they will subtract what is already protected, leaving them with the amount and location of suitable land available for conservation. Based on the 2010 Draft State Updates to the 1993 CWSAC report, ABPP’s current estimate is that 1,484,944 suitable acres remain nationwide in private ownership.

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78 Andrus, Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields, 4.
79 Hawke, et al, Personal Interview.
80 From Andrus, Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields, 10, the most important aspects and criteria for integrity are location, setting, feeling, and association:

Location—is it the place where the battle occurred and is it documented?

Setting—the physical environment, the character of the place, how a site is situated. Setting can be natural and manmade, including topography, vegetation, walls, fences, and buildings.

Feeling—the expression of the historic sense of a time period. If battle was in rural area, are there farm roads, agricultural buildings, field systems? Does it convey the feeling of the area at the time of the battle?

Association—is there a direct link between the event/person with the property? The property retains association if it is the place where the event occurred.

81 Andrus, Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields, 10.
82 Hawke, et al, Personal Interview.
The average size of a battlefield is around 4,200 acres, ranging from 247 acres at Barbourville, KY to 34,674 acres at Chickamauga, GA.\textsuperscript{84}

At the state level, the Civil War Trust estimates roughly 50,000 acres of highly significant unprotected battlefield land in Virginia, with the vast majority within the Chesapeake Bay watershed.\textsuperscript{85} The Shenandoah Valley Battlefields Foundation (SVBF) has identified 19,000 battlefield acres with integrity remaining as of 2000 (of the historic total core area of 31,000 acres). Of that, just over 5,000 have been protected, with approximately 2,000 acres lost in the last ten years, leaving 14,000 acres left available for conservation.\textsuperscript{86}

The land still available for protection stands in marked contrast to ABPP’s estimate of the 3,286,722 acres that historically constituted battlefield landscapes across the country. This means that 1,801,778 acres or 55\% of battlefield lands have been lost nationwide. At the state level, Virginia has lost 498,000 of its 1,000,000 identified historic acres, while Georgia has lost roughly 172,500 of its 231,500 acres, or almost 75\%.\textsuperscript{87} Alabama and Kentucky have lost 62,000 of its 77,400 acres (80\%) and 95,400 of its 102,400 acres (93\%), respectively. Most states are in the 50-60\% range of permanently lost acreage (See Appendix A for a state by state breakdown).\textsuperscript{88} The Civil War Trust estimates that one acre of Civil War battlefield land is lost per hour to developers.\textsuperscript{89}

\textsuperscript{86} Shenandoah Valley Battlefields Foundation, \textit{A Case for Support} (New Market, VA: Shenandoah Valley Battlefields Foundation, 2011) 5.
\textsuperscript{87} Program, \textit{Draft State by State Updates to the Civil War Sites Advisory Commission Report}.
Through the efforts of federal, state, and local governments, and land trusts, ABPP estimates that over 220,000 acres have been protected. The Civil War Trust calculates that 20% of the land upon which the Civil War was actually fought is currently protected in some form.\textsuperscript{90} Virginia has saved 74,000 of the 502,000 acres still remaining for protection (15%), while Maryland has protected over 15,000 acres (33%).\textsuperscript{91} There are certainly abundant opportunities to protect additional land: North Carolina has only protected 8,000 of its 165,000 acres of available battlefield land (5%), Arkansas 9,600 of 79,000 acres (12%), and Missouri 5,600 of 89,000 acres (6%). The pattern is similar for most of the 26 states (including Washington, D.C.) with CWSAC identified landscapes (See Appendix A).\textsuperscript{92}

Even battlefields with some degree of protection offered by NPS, or identified as one of the 384 most important sites by CWSAC, are truly only preserved in part, if at all. Nine of the Civil War Trust’s “ten most endangered battlefields” are listed in the CWSAC report.\textsuperscript{93} Just 16 battlefields are owned principally by the Federal government or other public agencies, with 58 partly or entirely included within the boundaries of NPS units. 37 battlefields have some state park ownership, but “many protect very small areas of the battlefield” or are “small commemorative parcels.”\textsuperscript{94}

The protected portion of the Tupelo National Battlefield in Mississippi, the scene of 23,000 combatants and 2,000 casualties is only one acre in size. The setting of Nathan Bedford Forrest’s premier military genius and 25% casualties of the 12,000 troops

\textsuperscript{90} Trust, \textit{FAQs on Battlefield Preservation}.  
\textsuperscript{91} Compared to the historic extent, however, these numbers are much lower: 7% (74,000 of 1,000,000 acres) and 16% (15,000 of 91,000 acres) for Virginia and Maryland, respectively.  
\textsuperscript{92} Program, \textit{Draft State by State Updates to the Civil War Sites Advisory Commission Report}.  
\textsuperscript{93} Civil War Trust, \textit{History Under Siege} (Washington, D.C.: Civil War Trust, 2010).  

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engaged, Brice’s Cross Roads, MS, is also only one acre.\textsuperscript{95} Even battlefields just designated as a National Historical Park, like Cedar Creek in 2002, have only one-third of its 3,700 acres of CWSAC-defined historically significant land protected. Of that, just 30 acres is owned by NPS, with the rest protected by non-profit organizations. Yet, Cedar Creek remains one of the most endangered sites in the country due to expansion from Interstate 81 and an adjacent limestone quarry, and non-profit campaigns to protect this site continue in earnest.\textsuperscript{96} However, the loss of these sites is not limited to just pieces of battlefields.

Of the 384 sites identified by CWSAC, 71 or 18\% had already been deemed completely lost as intact historic landscapes and unavailable for any preservation efforts, leaving just 313 for protection. Virginia has lost 14 sites completely.\textsuperscript{97} The original 1993 CWSAC report found that 161 of 299 remaining battlefields (54\%) were currently experiencing moderate to high levels of threat and “most of these sites will be lost or seriously fragmented within the coming 10 years.”\textsuperscript{98}

Despite the loss of hundreds of thousands of acres, it is clear that significant expanses of battlefield lands are still unprotected. But out of an estimated 10,500 engagements during the war, or even just the 326 incidents of conflict in the Shenandoah Valley alone, is it reasonable to protect each one?\textsuperscript{99} The CWSAC outlined the 313 remaining historically significant sites with integrity in an effort to prioritize conservation efforts and ensure resources were being used to protect key sites, not where “two soldiers fought over

\textsuperscript{95} Porter, Dollar$ and Sense of Battlefield Preservation X.
\textsuperscript{96} Hollberg, Better Models for Development in the Shenandoah Valley 2010 94-95.
a stream while filling their canteens.” More importantly, grants from ABPP are only available for the “core” and “study” areas of the 384 CWSAC sites, which define the scope and boundaries of a battlefield and events associated with it.

Although ABPP funds are only several million dollars each year, these 1:1 matching grants represent the largest pool of dedicated battlefield acquisition funds. Due to this dynamic, groups like the Civil War Trust, who are generally not cash-rich, traditionally seek preservation opportunities only within the core and study areas of listed CWSAC sites, and where they can leverage additional dollars. In fact, the majority of battlefield protection has occurred on CWSAC sites for precisely this reason. Between 1998 and 2007, $26.3 million was awarded for acquisition projects, leveraging an additional $55.3 million in state and private dollars, and protecting almost 14,000 acres of battlefields.

Preservation groups, like the Civil War Trust, have realized they cannot have everything, nor is it in their interest to jump at every opportunity. Instead, they work to build a critical mass of protected land. The goal is not to preserve a random acre

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100 Hawke, et al, Personal Interview.
101 From ABPP Mapping methodology received via CD from Tanya Gossett, “American Battlefield Protection Program (ABPP) Battlefield Mapping Methodology,” 19 Oct. 2011:

The Core Area is the area of direct combat on the battlefield. Core Area includes critical land where fighting occurred and casualties were sustained. There may be multiple Core Area boundaries on a battlefield, but all must fall fully within the Study Area boundary.

The Study Area defines tactical context and visual setting and reflects the historic extent of the battle as it unfolded across the landscape. The Study Area contains all resources related to or contributing to the battle event: where troops maneuvered and deployed, immediately before, during, and after combat, and where they fought during combat. The Study Area also includes all locations and geographic features that directly contributed to the development and ending of the battle. This can also include encampments, and logistical areas – e.g. locations of ammunition trains, hospitals, headquarters, supply dumps.

102 Emily Stoll, Civil War Trust, Personal Interview, 27 July 2011.
haphazardly, but instead seek property that can be incorporated into already preserved sites. If a property is surrounded by development and will not add to the integrity of a battlefield, it will generally not be pursued.\textsuperscript{104} It is important to remember that acquisitions depend on the readiness of a willing seller, so opportunities are not universally available.

Each preservation organization operates differently and creates its own triage system that defines the scope of their work. The Piedmont Environmental Council (PEC) in Virginia, for example, supports the work of the Unison Preservation Society to protect its open space and have it successfully listed on the Virginia Landmarks Register and nominated to the National Register of Historic Places. PEC has assisted with GIS mapping, legal advice, and some funding. Unison, however, is not listed on the CWSAC report, but represents a uniquely pristine battlefield containing a mostly unchanged network of nineteenth century roads.\textsuperscript{105} In general, though, it seems that most preservation groups recognize the need and efficacy of working within the arena set by CWSAC.

While these organizations will not run out of work any time soon, the real answer to how much protected land is enough, or even when success will be achieved, is not a certain number of acres or sites. Instead, it lies at the crossroad of reaching a balance of protecting local cultural values and interest for historic lands, the logistical and monetary feasibility of protecting tracts, the political support for funding these efforts, and the public’s interest in the Civil War. Although not likely, if public enthusiasm for battlefield preservation wanes after the sesquicentennial celebrations, perhaps government agencies and private donors may decide they have protected all that can be achieved and be satisfied with what they

\textsuperscript{104} Stoll, Personal Interview and Erin Wetherley, Civil War Trust, Personal Interview, 22 July 2011.
have accomplished. In the meantime, efforts to protect critical lands within the guidelines set forth by CWSAC will continue to build that critical mass of historic land.

VII. A GIS Tool for Partnerships

A geographic information systems (GIS) is “designed to work with data referenced by spatial or geographic coordinates...a GIS is a both a database system with specific capabilities for spatially-reference data, as well [as] a set of operations for working with data...a higher-order map.”106 GIS provides a powerful tool to address geographical and environmental issues, especially through the use of layers. Layers are thematic maps that display information about a particular characteristic of a geographic extent; multiple layers can be overlapped, separated, or combined to display a number of unique factors on a site. GIS have the ability to integrate large databases of information and use a suite of analytical tools to investigate the data.107

Many organizations currently use GIS as an effective tool for protecting battlefields. The Connecting Future Partners Process (CFPP) GIS strategy presented here is not an attempt to replace those methods, but rather enhance them. It represents a new way of thinking about battlefield protection that emphasizes collaboration, and helps to identify and align the constellation of potential partners and funders. CFPP is an additional mechanism to “combine, reinvent, [and] apply techniques to the individual circumstances”

at battlefield sites.” Given a history of narrow interests and parochialism among many conservation organizations, the dividends of collaboration may be profound.

The most compelling feature of this GIS strategy is its simplicity and flexibility. It helps the user recognize important attributes on parcels of historic interest such as natural areas, open space, scenic views, water resources and hydrologic features, threatened or endangered species, prime farmland soils, migratory bird flyways, and cold-water trout streams, among others. Using the CWSAC-identified sites as a base, any other thematic GIS layer displaying conservation values can be overlaid on top. Far from prescribing or defining what is worth saving, this approach allows each organization to use their institutional knowledge and creativity to scour the wealth of GIS data available online.

Preservationists need to be nimble, flexible, and opportunistic – this tool supports and enhances that. As other values are identified within CWSAC-defined boundaries, organizations can reach out to the advocates for that value and propose a partnership for protecting the site. Collaboration can take the form of joint grant applications, fundraising solicitations, and land acquisition, or outreach to media, constituents, and policy makers. An assessment of some key layers and potential allies is presented below.

Beginning the mapping and partnership building process with the 384 CWSAC sites is a good starting point for two reasons. First, the federal government is the most important financier of preserving historic battlefield sites. Any acquisition efforts must involve them, especially since they provide the largest dedicated source of funds for battlefield

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Second, setting the framework of preservation activities to the 384 will concentrate the efforts of preservation organizations and announce the scope of potential opportunities to partner organizations. Knowing which battlefields are the focus for conservation will guide planning, strategy, analysis, and fundraising. Mapping and overlaying other values on the 384 sites of interest will help organizations react quickly when acquisition opportunities arise. Partnerships can be formed prior to an actual project, or implemented rapidly once a willing seller is identified – CFPP will enable parties to lay the groundwork, make introductions, and create an infrastructure for cooperation.

It is important to keep in mind a potential pitfall of this type of strategy. If sites are mapped and layered with other environmental values, there is a risk of labeling land as either “good” or “bad” depending on the type or number of features associated with it. Each stakeholder has its own value system and will judge the conservation priority of sites differently. Approaching preservation with a mindset of only pursing sites with a number of different values, or specific ones (i.e. “good” land), may mean significant acquisition opportunities are ignored. This is one reason why a decentralized approach is best suited. It allows for more participants to weigh in and increase information, create opportunities for new collaboration, and recognize the various environmental characteristics of a site. In doing so, it prevents one organization from defining what is important.

Components and Methodology

The methods of this strategy can and should be applied to all 26 states that contain these 384 battlefields. However, this assessment concentrates on Virginia as a pilot study.

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111 Shay, Personal Interview.
With over 122 identified sites in a variety of ecosystems and regions, Virginia offers ample opportunities to identify conservation partnership opportunities.\(^{112}\)

Constructing the *Connecting Future Partners Process* (CFPP) GIS strategic planning tool required the participation and endorsement of the American Battlefields Protection Program (ABPP). Through their initial assessment of the 384 sites, and the updates to track preservation activities, changes in condition or other relevant developments, ABPP has mapped the core and study areas of each battlefield.\(^ {113}\) “Core” is defined as the “area of direct combat on the battlefield. [It] includes critical land where fighting occurred and casualties were sustained,” which is often described as “hallowed ground.”\(^ {114}\) The “study” area defines “tactical context and visual setting and reflects the historic extent of the battle as it unfolded across the landscape,” including troop maneuvers, deployment, and encampments and logistical areas (hospitals, ammunition trains, headquarters, etc).\(^ {115}\)

This information is not made available to the general public (presenting problems that will be discussed further) due to Section 304 of the National Historic Preservation Act (16 USC 470w-3). Since the data shows the locations of potentially sensitive historic and archaeological sites, and because most of the land in question is in private ownership, this regulation prohibits distribution of this data for any purpose other than that which has been acknowledged by ABPP (See Appendix B).\(^ {116}\) After meeting with ABPP and explaining

\(^ {113}\) Program, Draft State by State Updates to the Civil War Sites Advisory Commission Report.
\(^ {114}\) Gossett, “American Battlefield Protection Program (ABPP) Battlefield Mapping Methodology,” and Commission, "Which Are the Nation's Principal Civil War Battlefields.”
\(^ {115}\) Gossett, 2011.
the scope and purpose of this project, the GIS shapefiles and data were made available by compact disc, including:

- Core Area
- Study Area
- National Park Service boundaries
- Existing National Register battlefield boundaries
- Potential National Register boundaries
- Other protected lands

The base map used in the planning tool and analysis is composed of the core and study areas provided by ABPP. From this starting point, additional thematic layers of environmental characteristics can be added by organizations at will. The core and study areas are mapped as individual shapefiles for each of the 130 sites, and are projected in either UTM Zone 17N or 18N, North American Datum, 1927. In order to work with the data in a single statewide map, and overlay with other layers, each shapefile must be reconciled to a consistent projection/display on the map. If not, the different layers will not properly overlay spatially. In this case, the Virginia Statewide Lambert Conformal projection was selected. The process is straightforward and can be completed by even a novice GIS user:

1) Use the “union” tool to combine all of the shapefiles projected in Zone 17N, and then all those projected in Zone 18N. This must be done separately for the two zones, as well as for the core and study area shapefiles.
2) The respective Zone 17N and Zone 18N combined shapefiles are then each reprojected to the Virginia Statewide Lambert Conformal projection. Again, this is done separately for the core and study area shapefiles.
3) With everything in the same projection, the former 17N and 18N projected shapefiles can be combined and imported to a base map of Virginia.
4) If one wanted to view the reprojected core and study areas together, the merge tool should be used again to combine them.
In order to display any other layer, each must be converted to the Virginia Statewide Lambert Conformal projection as well; this includes environmental layers obtained from online sources. Although not necessary, it may be helpful to isolate a feature of interest, wetlands for example, that occur on battlefields from those that do not. In this case, one uses the “clip” tool to cut out areas where the feature of interest overlays with another. This “cookie cutter” method creates a new layer where wetlands, or any other feature of interest, overlap with battlefields.

It may also be useful to only view battlefield lands that are still unprotected. Although not complete due to the piecemeal nature of collecting data from various sources, ABPP has compiled shapefiles of “other protected lands.” These include:

- Agriculture and Forest Districts from the VA State Forester and VA Agriculture Commissioner
- Virginia Conservation Lands from the VA Department of Conservation and Recreation (DCR)
- Locally-owned Conservation Lands from DCR
- National Park Service Lands from NPS
- Private Easement and Private Fee Simple Conservation Lands held by DCR
- State Forests from the VA Department of Forestry
- State Parks from DCR
- State Wildlife Management Areas from the VA Department of Game and Inland Fisheries (DGIF)
- National Wildlife Refuges from U.S. Fish and Wildlife Service
- National Forest and Wilderness Boundaries from U.S. Forest Service
- Conserved and Eased Lands by the Virginia Outdoors Foundation

Projecting and merging these shapefiles provides the user with all protected lands throughout the Virginia. The “clip” tool can be used again to cut out only the protected lands that overlap with Civil War battlefields. To produce a layer of battlefield lands that have no protection, the “erase” tool is used to remove the protected portions from the full battlefield map. Finally, the environmental features on these unprotected lands can be
isolated by again using the “clip” tool, with the prime farmland soils layer for example, and the unprotected battlefield lands layer.

**Key Additional and Displayed Layers**

Although this tool is not intended to prescribe any particular set of values, there are a few noteworthy layers that organizations may find useful. These can be important because: (1) there are government funding programs associated with their protection, (2) they may be of concern to specific, well-known constituencies, and (3) their value as or within an ecosystem. The calculations below were produced by summing the “shape area” from the attribute table of each feature. The summed area is calculated in meters-squared, which is converted to acres by multiplying the given area by .000247105381.

**Wetlands**117 – There are 40,188 acres of wetlands on parts of 122 unprotected CWSAC sites in Virginia. For comparison, an estimated 58,500 acres of wetlands were lost each year in the United States between 1986 and 1997.118 These files were obtained from the U.S. Fish and Wildlife Service’s National Wetlands Inventory. These ecosystems are of significant value to a multitude of organizations. This includes the Chesapeake Bay Foundation, James River Alliance, Ducks Unlimited, Piedmont Environmental Council, Clean Water Action, Wetlands Watch, numerous “Friends of” rivers organizations, and many more.

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Furthermore, wetland protection monies are available at the state and local level, and they have additional Clean Water Act protections.

Prime Farmland soils\textsuperscript{119} – There are 502,474 acres of prime farmland soils on portions of 127 unprotected CWSAC sites in Virginia. This shapefile is available as part of a model by the Virginia Conservation Lands Needs Assessment (VCLNA), which identifies and prioritizes potential conservation lands across the state. The agricultural portion of the model incorporates soil type, land cover, and slope to determine prime farmland soil (weighted at 80%), but also includes cultural values in its assessment (20% weight).\textsuperscript{120}

Prime farmland soils are:

those that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods.\textsuperscript{121}

Such soils are of significant concern for groups like America’s Farmland Trust, USDA’s Farm and Ranch Lands Protection Program, American Farm Bureau Federation, and open space advocacy organizations like the Valley Conservation Council.

Cold-water trout streams\textsuperscript{122} – Virginia boasts 37 miles of cold-water trout streams on parts of 50 Shenandoah Valley Civil War battlefields. These ecosystems are critical for trout

\textsuperscript{121} Hutchinson, Island Farm Memo, 3.
species and help protect downstream water quality. This data is available from VA DGIF. Organizations that advocate for these streams include Trout Unlimited, Izaak Walton League of America, and numerous anglers groups.

**Critical habitat for threatened and endangered species** - As part of its Wildlife Action Plan, VA DGIF identified essential habitat for 149 terrestrial and 98 aquatic species. 64,946 acres of this critical habitat exists on parts of 95 unprotected battlefields. The agency has also delineated conservation areas on a priority scale of one (least) to five (highest) in the coastal region of Virginia. This map displays priority conservation areas from three to five on battlefields. The Nature Conservancy, Conservation Fund, Appalachian Wildlife Foundation, Virginia Conservation Network, and Wildlife Foundation of Virginia, to name a few, are all stakeholders in working to protect threatened species and their habitat.

**Stream and Hydrology** - There are 5,633 stream miles on 130 unprotected Civil War battlefields. Obtained from the U.S. Geological Survey National Hydrology Dataset, these unprotected stream miles play an important role for water quality and habitat for aquatic species. Numerous water quality and wildlife groups play an active role in protecting streams. These include the Chesapeake Bay Foundation, Potomac Conservancy, Riverkeepers, American Rivers, Friends of the Rappahannock, and more.

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123 Virginia Department of Game and Inland Fisheries, *Geographic Information Systems (GIS)*.
Migratory birds\textsuperscript{127} – In cooperation with the Audubon Society, DGIF determined areas of conservation importance for migratory birds; there are 106,216 acres on tracts of 46 unprotected Civil War battlefields. DGIF also maintains data on known bald eagle habitat; 75 miles of river habitat with roosts and high-concentrations of bald eagles wind through unprotected portions of nine battlefields. Finally, data from DGIF also shows 46 “Virginia Birding and Wildlife Sites” on parts of 26 unprotected battlefields. In addition to the Audubon Society and tens of thousands of birders, other advocacy organizations include the Bird Conservation Alliance, American Bird Conservancy, and Ducks Unlimited.

Development Vulnerability\textsuperscript{128} – As part of the VCLNA, a ranking of open space vulnerability to development and suburban growth was developed. Originally ranked from one to eight, this base map includes areas with a threat of seven or eight. Any open space preservation group or smart growth advocacy organization, like the Valley Conservation Council, Smart Growth America, or Partnership for Smarter Growth would be intrigued by this layer.

Protected and Unprotected Areas – Comprising the base map, this data in itself can be important for conservation organizations interested in wildlife corridors and habitat contiguity. Battlefields can fill in gaps between protected areas, providing connectivity for migratory or wide-ranging species. It may also allow groups like The Nature Conservancy to identify routes for species as they shift habitat due to the effects of climate change.

\textsuperscript{127} Fisheries, Geographic Information Systems (GIS).
Products

This map, produced using the instructions and GIS layers described above, displays fourteen battlefields in Northwest Virginia. Each layer is represented by different shading and some of these values overlap one another. It is apparent that multiple environmental features exist on these battlefields, especially prime farmland soils, areas vulnerable to development, and migratory bird habitat. Additional environmental features also exist on these sites, and can be easily displayed within ArcMap.
Institutionalizing Partnerships

Many organizations already have partnerships or dialogue with other environmental or conservation groups. However, these are often specific to a single project or based on personal and professional contacts. With high staff turnover in the non-profit world, these working relationships often get severed, requiring a new round of introductions and trust-building. Even among more permanent-standing board members, relationships tend to be confined to within the organization itself. Utilizing CFPP allows partnerships to become institutionalized. By formally identifying other values on parcels of interest, organizations can establish more permanent dialogue with other groups. Should a facilitator of a working relationship depart, a successor will be able to recognize collaborating partners quickly when acquisition opportunities arise.

Where to store the baseline map?

Although this tool presents a unique opportunity for collaboration, its access is limited by the aforementioned regulation prohibiting general distribution of the data. Therefore, an open-access, publicly shared server is not an option for dissemination. Many historic preservation organizations have already gained permission and are using the ABPP files for their own efforts. For those that do not, but are interested, the process is fairly simple. ABPP requires a written explanation of how the data will be used, signed by the user. As long as its use is not for incongruous purpose, or distributed further, ABPP is willing to share this resource.

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130 Lott, Personal Interview.
One organization that could hold the baseline data, with ABPP permission, is Virginia’s United Land Trusts (VaULT). It serves as a loose umbrella for the 29 private, non-profit land trusts in Virginia, and could advertise its availability across the state.\(^\text{131}\) If an organization is interested in utilizing this strategy, it can obtain permission from ABPP and request the base map and GIS data from the umbrella organization. The Virginia Conservation Network, a coalition of 125 non-profit and community groups, has also confirmed that they would be willing caretakers of this information and inform their diverse membership, including land trusts, water quality advocates, and smart growth proponents.\(^\text{132}\) The Conservation Trust for North Carolina could serve in the same capacity for the 24 land trusts in that state.\(^\text{133}\) The Civil War Trust, arguably the most well-known battlefield-focused land trust, could serve as advertiser and caretaker of the base map for the host of smaller battlefield preservation organizations.

Holding the data and baseline map does not require investment other than space on a computer and putting the data on CDs for distribution; utilizing it would require the organization to have ArcGIS and someone with basic knowledge of the program. Distributing an already constructed base map with some key additional environmental layers addresses the problem that some organizations do not have a GIS analyst or the technical knowledge to recreate the map.\(^\text{134}\) For groups without any GIS software or capacity, another partner within the larger umbrella organization can likely assist. The Civil

\(^{131}\) Joanna Wilson, VA Department of Historic Preservation, Personal Interview, 16 Aug. 2011.
\(^{132}\) Lott, Personal Interview.
\(^{134}\) Shay, Personal Interview; Richards, Personal Interview; Wetherley, Personal Interview.
War Trust already communicates with the majority of these local groups and boasts considerable GIS savvy; they may be willing to assist with technical questions.

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**VIII. The Value of Partnerships**

With so many threatened battlefield acres left unprotected, and during a time of shrinking government and land trust budgets, all preservation organizations must begin to think creatively about how to protect historic and environmentally significant lands. Land conservation is “increasingly complex and requires a multitude of partners operating from a variety of vantage points to be successful.” These partnerships need to be as inclusive and creative as possible to succeed, and incorporate the strengths that each partner brings to the table. Very few, if any, organizations have the expertise and capacity needed to accomplish all the tasks demanded for battlefield preservation, “but many possess parts of what is needed.” This includes “research, field mapping, devising a protecting plan, marketing the plan to legislatures and donors to raise funds, and implementing the management of a site according to the plan.” Partnerships also provide a robust network for preservation organizations to act rapidly to take advantage of new opportunities and adapt to challenging situations.

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135 Wetherley, Personal Interview.
136 Conservancy, *Conserving Chesapeake Landscapes* 3.
139 Ibid.
Why Now?

The heightened awareness surrounding the 150th anniversary of the Civil War has generated increased public interest in the conflict and support for battlefield protection. Many state governments have established “Sesquicentennial Commissions” to plan and coordinate reenactments, symposia, and tourism events over the five year anniversary period. It has also helped preserve some funding for government acquisition programs, which would likely have been cut.\textsuperscript{140} The remaining three years of this celebration is a key period in which to take advantage of the enthusiasm and goodwill surrounding battlefield protection. There are a variety of additional political, economic, and demographic reasons why protecting historic lands and open space is especially important now. But battlefield preservation can no longer be the sole responsibility of individual land trusts; it requires establishing partnerships, which CFPP can facilitate.

Changing Demographics and Real Estate

The generation of Baby Boomers is fast approaching retirement age and according to the 2000 U.S. Census, this age group (45 to 64 years of age) will comprise 25\% of the U.S. population in 2020.\textsuperscript{141} As this cohort retires, many landowners will sell their properties as they relocate or cash-in on the land serves as their retirement accounts. The 2007 Census of Agriculture found that the fastest growing group of farm operators is those 65 years and older, and Chesapeake Bay states have a majority of farmland owned by those 55 years and

\textsuperscript{140} Hawke, et al, Personal Interview.
The State of Pennsylvania estimates that half of their 12 million acres of private forests will change hands in the next 22 years, and almost ten percent of such forestlands are owned by those 75 years and older in Maryland, Virginia, and Pennsylvania. While some owners will sell their lands, others will transfer them to their children. In this economic climate, those beneficiaries may find it more valuable to sell their property to developers. On the other hand, some studies have shown that the “emerging generation of landowners is more interested in and knowledgeable about conservation than previous generations.” This risk, and opportunity, means that land trusts need to be ready to educate citizens about conservation options, tax incentives, and estate planning. Land trusts that establish partnerships can increase their capacity to educate and reach out to land owners, and communicate the different important features of a property.

Collaboration will also let land trusts react quicker to preservation opportunities through increased awareness of potential sellers and the ability to raise additional funds for acquisition. The recent housing crash and economic recession delayed conversion of many sites slated for development. Some of these are once again available for protection, especially since developers are interested in shedding properties. The Piedmont Environmental Council received a 268-acre farm near Orange, VA as a gift from developers (with significant tax breaks for the donors) due to the slumping real estate market; 319

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143 Ibid.
144 Ibid.
145 Wetherley, Personal Interview.
houses were planned for the site. It is ironic that as land prices have fallen, land trusts and governments have less money to dedicate for conservation. Partnerships and collaboration can help leverage and tap into additional resources for acquisition.

Suburbanization

Although the economic downturn has delayed development of some open space, projects are still underway and exurban communities throughout Virginia are still growing rapidly. Many battlefields lay directly in the path of expanding communities along the I-95, I-66 and I-81 corridors. These communities, many of which suffered in the economic downturn, are anxious for economic growth and may be tempted to remove barriers and standards, or fast track construction, in order to develop back to prosperity.

Frederick County, VA, a locality at the northern end of the Shenandoah Valley at the intersection of I-81 and I-66, was the setting for numerous Civil War engagements. The City of Winchester, which is situated within Frederick County, changed hands 72 times during the war. The area is home to seven battles listed on the CWSAC priority list (Winchester I, Winchester II, Kernstown I, Kernstown II, Opequon, Cedar Creek, and Berryville). Some of these sites have already been lost to development and others face imminent threats.

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Frederick County has almost doubled in number of households in the last 20 years, from 16,470 to 28,780. It is projected to grow to 31,600 households by 2015. In addition to new residential communities, Frederick County and Winchester have seen extensive economic development from industry and “big-box” stores; at least 18 major corporate businesses have opened or expanded there in the last two years. As the economy revives, and communities like these continue to expand, new developments will continue to encroach on historic battlefield lands and remaining open space.

Budget Cuts

The economic downturn has had a significant impact on government programs that support battlefield and open space preservation. The Land and Water Conservation Fund (LWCF), which provides matching grants to states and local governments to develop outdoor recreation areas, acquire land, and assist with conservation strategies, has been particularly weakened. In 2011, the Republican-controlled U.S. House of Representatives proposed the virtual elimination of LWCF. Authorized at $900 million per year, and funded from royalties paid by energy companies drilling in the Outer Continental Shelf, not tax-dollars, the program was appropriated at $301 million for FY’11.

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152 Winchester Economic Development Analysis and Master Plan within Foundation, Winchester City and Frederick County Economic Development/Residential Synopsis.
Continuing Appropriations Act for FY’12, would have funded LWCF at only $62 million, an 80% cut.\textsuperscript{155} Even with these drastic cuts, additional attempts to reduce or eliminate LWCF and direct the monies towards reducing the deficit were made by House Republicans:

- Amendment 41 to H.R. 1, introduced by Rep. Cynthia Lummis (R-WY) would have reduced LWCF funding an additional $35 million from the proposed $62 million. The amendment was narrowly defeated, 213-216.\textsuperscript{156}

- Amendment 733 to the Interior Appropriations bill (H.R. 2584), introduced by Rep. Broun (R-GA) and Rep. Lamborn (R-CO) would have zeroed out all Department of the Interior land acquisition programs. The amendment failed by a voice vote.\textsuperscript{157}

- Amendment 715 to the same bill as above, introduced by Rep. Huelskamp (R-KS), would have reduced various accounts by $3 billion, including all LWCF funds. The amendment was defeated 126-284.\textsuperscript{158}

Although these draconian attempts to cut LWCF funding were narrowly defeated, and the U.S. Senate voted to appropriate LWCF at $350 million, the $322 million finally agreed upon and signed into law by President Obama represents only one-third of the authorized amount for this non-taxpayer funded program. Other programs, like the


Transportation Enhancement fund, which has helped fund $44 million in battlefield acquisition under Letter C eligibility, have also come under attack.\(^{159}\)

The same scenario is playing out in state legislatures across the nation. In North Carolina, the Clean Water Management Trust Fund was cut from $50 million in 2010 to $11.25 million for 2011 and 2012, $90 million less than the authorized funding level. The Natural Heritage Trust Fund, previously appropriated at $8 million per year, was essentially zeroed out, with monies only available to cover debts, but no new projects.\(^ {160}\) Together, these allocations amounted to less than 0.5% of the state’s budget, but played an oversized role in open space and battlefield protection.\(^ {161}\) The Virginia Land Conservation Foundation, which provides matching grants for the preservation of open space and parks, historic areas, farmland, forests, and natural heritage sites was funded at $4 million for the 2009-2010 biennium, and just over half that for the 2011-2012 period. This funding stands in contrast to the $31.5 million identified for these agencies to achieve their mission and meet landowner interest for conservation by the Virginia Conservation Network.\(^ {162}\) Other agencies, like the Virginia Department of Historic Preservation “are still able to dispense money, but grant funding has diminished due to budget cuts.”\(^ {163}\) Between 2009 and 2010, funding for land conservation in Virginia and Maryland shrunk by $52.5 million ($142 million to 90.5 million) and $152 million ($227 million to $75 million), respectively.\(^ {164}\)

159 Stoll, Personal Interview and Gossett, "Working Together," 5.
163 Wilson, Personal Interview.
164 Conservancy, Conserving Chesapeake Landscapes 10.
According to the Chesapeake Bay Commission, current land conservation initiatives rely heavily on state-funded programs.\textsuperscript{165} With federal and state governments trying to balance budgets on the back of conservation, and raiding acquisition programs to fund other priorities, it is even more important for private land trusts to utilize creative measures and embrace strategies to be even more effective. Indeed, the outlook is that “funding from these NGOs with interests ranging from ecological to historic, cultural and archaeological, will only grow in importance in the future.”\textsuperscript{166}

Roots of Partnerships

Land preservation has traditionally been parochial, with each land trust or interest group pursuing its own motives. Securing other environmental or historic features at a site was a bonus, but not the primary motivation. Protecting multiple values, however, is not novel. The activists who fought to save the Williams Center tract at Manassas in the late 1980s achieved some of their first success because they recognized the legally strategic importance of wetlands on site.

At Brandy Station, VA, the site of the largest cavalry battle during the war and the first engagement of the Gettysburg campaign, environmental values, such as wetlands and prime farmland soils, once again played a role in saving the battlefield from imminent development.\textsuperscript{167} This battlefield was also one of CWSAC’s 50 most endangered in the nation, and the National Trust for Historic Preservation placed it on its list of the 11 most

\textsuperscript{165} Conservancy, Conserving Chesapeake Landscapes 9.
\textsuperscript{166} Ibid., 14.
endangered historic places. A proposed racetrack on 500 acres of the site required Army Corps of Engineer permits to fill the wetlands. The Corps, by law, could not issue the permits without first considering the impact on historic resources under Section 106 of the National Historic Preservation Act.168

The Brandy Station Foundation, the history advocacy group for the property, aggressively monitored the permit process, and challenged the Corps’ consent on the grounds that the study did not take indirect effects of the racetrack or its impact on the entire battlefield, not just the wetland tracts, into account. The delay proved costly for the race track developer, and the case never went to court as financing for the project collapsed. Aided by the additional time, the Foundation was able to raise funds and strike a deal with the developers to protect the most significant portions of the battlefield.169 The Brandy Station incident is yet another example of how identifying and incorporating other features of historic properties into an organization’s strategy can help achieve success.

The actions of the Manassas and Brandy Station advocates reveal that protecting land, whether it has environmental or historic value, uses identical tools and strategies. The mechanisms and guidelines are the same. In practice, land trusts are generally working in very similar ways. Operationally, “due diligence is due diligence, good governance is good governance,”170 no matter who is protecting a site and for what reason. The only difference is the resource protected: “the details are in what is being protected, and really there is no difference for sites with multiple values.”171 Since land trusts are mostly using the same

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169 Ibid.
170 Richards, Personal Interview.
171 Ibid.
strategies, tools, methods of accountability, and operational language, facilitating partnerships between seemingly disparate land trusts is not as imposing or foreign a task as it would appear.

Even the federal government recognized the need for partnerships, albeit between itself and private organizations, when the CWSAC report was issued in 1993. The report noted that due to a variety of factors, including the number and size of battlefields, the limitations of government budget policy, and that private landowners hold most battlefield acreage, a “public/private partnership approach...is virtually the only credible structure available at this time.”

The authors saw that each sector has its own abilities: NGOs can respond rapidly and stimulate donors and volunteer efforts, while public agencies regulate, set policy, and conduct research. Breaking through the barriers of bureaucratic tradition and convention allows each side to accentuate their respective strengths to achieve the goal of protecting battlefields. The same lessons apply between NGOs.

The American Battlefield Protection Program (ABPP), which began in 1996, has made this approach part of its mission. Its authorizing language states that it:

“shall encourage, support, assist, recognize, and work in partnership with citizens, Federal, State, local and tribal governments, other public entities, educational institutions, and private nonprofit organizations in identifying, researching, evaluating, interpreting, and protecting historic battlefields and associated sites on a National, State, and local level.”

In administering the recommendations provided by CWSAC, it has “continued to provide leadership and coordination in building partnerships by bringing together diverse constituencies throughout the nation.” ABPP has also encouraged its partners to

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172 Commission, "How Can Battlefields Be Better Protected?.
173 Ibid.
175 Bearss, "Foreword," 3.
champion battlefields and historic sites as valuable community assets, “such as recreational open space, outdoor classrooms, and tourist destinations.” Incorportating environmental values and features is the next logical step in this process.

According to many in the land trust community, “the connection is happening,” and the divide between parochial interests is “being broken down.” Some individuals “get it” and recognize the need to achieve multiple goals on acquisition projects; these include Jim Lighthizer (President of the Civil War Trust and former Anne Arundel County Executive and Secretary of Transportation in Maryland), Stephanie Meeks (President of the National Trust for Historic Preservation and former Acting President and CEO of The Nature Conservancy), and W. Denman Zirkle and John Hutchinson (Executive Director and Director of Conservation at the Shenandoah Valley Battlefields Foundation). The gap is also being bridged between conservation organizations and the “hook & bullet” community. The last few years have also seen additional overlap in programs, presentations, and sessions at events like the annual Land Trust Rally.

Opportunities

A strategy of establishing partnerships is not a revolutionary idea – public/private partnerships to protect battlefields have already occurred with great success. Cooperation between non-profits is the next step in their evolution, especially since no easement, project, or campaign is the same. Organizations are as distinct as their mission and the

177 Richards, Personal Interview.
178 Ibid.
179 Shay, Personal Interview.
historic site or environmental value they want to preserve. Each group has the ability to address unique local situations and raise funds from donors and diverse sources only known to them. They know their own political landscape and which elected officials and key stakeholders to reach out to; they serve as liaisons. NGOs know who to approach in local government for grants and how to sell preservation to community leaders, politicians, and neighbors, and likely have established, healthy working relationships with them.\textsuperscript{180}

Partners can also help one another identify additional values on a property, which often yields more funding opportunities. Establishing partnerships and sharing resources does not necessarily mean that organizations will compete for scarce conservation dollars. Instead, they can enlarge the pie through collaboration based on multiple public benefits, rather than carving out a narrow niche. Opportunities for collaboration are available if organizations start to “think beyond the battlefield.”\textsuperscript{181} So far, land trusts have been heading in the right direction, but “within their own lanes.”\textsuperscript{182} Given the current political, economic, and budgetary circumstances, this is an urgent time to embrace the opportunities they provide to improve conservation efforts: increased funding and more competitive grant applications, stronger lobbying for legislation and appropriations, and broader public outreach and education, among others. Using CFPP will make it easier for organizations to identify the values and advocates needed to form effective partnerships.

\textsuperscript{181} Richards, Personal Interview.
\textsuperscript{182} Ibid.
New Funding, Grants, and Resources for Acquisition Projects

Collaboration can open the door for new funding opportunities and enable partners to assist in meeting the financial obligations of protecting sites. With smaller pools of money from states for land acquisition projects, competition for grants will be even fiercer. In general, battlefield groups stand alone on grant applications and are focused solely on the historic aspect of a property.\textsuperscript{183} There is additional funding across the board that is either unrecognized or not being tapped into.

Many state agencies, like the Virginia DCR, give higher scores to grants that “dip into multiple buckets or cross values.”\textsuperscript{184} Applications for Virginia Land Conservation Foundation (VLCF) grants are divided into sections for historic areas, farmlands, natural heritage, and parks and open space. While they are submitted under a primary category, including complementary categories is encouraged: “strong applications will document multiple public benefits to be derived from proposed projects.”\textsuperscript{185}

Of particular note for history-focused land trusts is that grants are not awarded “just because it is a battlefield, but if [a project] will benefit the public.”\textsuperscript{186} The Virginia Department of Historic Resources has a similar multi-value focused grant awarding procedure as DCR; a primary conservation value is listed on the application, but secondary resources should also be cited.\textsuperscript{187} Grant-making institutions and agencies are increasingly looking to protect more resources and values with limited funds, and conservation

\textsuperscript{183} Wilson, Personal Interview.
\textsuperscript{184} Sarah Richardson, VA Department of Conservation and Recreation, Personal Interview, 27 Jan. 2012.
\textsuperscript{186} Wilson, Personal Interview.
\textsuperscript{187} Ibid.
organizations must respond in kind. For example, one successful application to VLCF from the Shenandoah Valley Battlefields Foundation (SVBF) scored second out of 27 competing projects because it identified multiple values for protection.\textsuperscript{188} Projects like these are “the ones that glow” for state agencies like DCR.\textsuperscript{189}

Although an organization can use the \textit{Connecting Future Partners Process} to identify multiple values and apply for grants on their own, there is additional value in having partners on an application. Agencies, foundations, and donors want to fund acquisition opportunities that will be executed. Partnerships indicate that a project is more likely to be completed, making funders more comfortable funding it.\textsuperscript{190}

In addition, history-focused land trusts are knowledgeable about battlefields, but are not likely to be authorities on wetlands or prime farmland soils. \textit{CFPP} can aid a battlefield preservation organization to identify additional values, and enable them to engage with its advocates to gain their input and expertise on those resources. Such an alliance can help applicants better evaluate resources, create a more robust and comprehensive management plan (which is often required in grant applications), articulate those features more effectively, and add legitimacy to a project that seeks to protect multiple values. For instance, the Commonwealth of Virginia has focused its conservation dollars and efforts on protecting water quality and Civil War battlefields; thoughtfully addressing both issues makes a grant application more competitive and likely to get awarded.\textsuperscript{191} For example, a partnership between the Richmond Battlefields Association,

\textsuperscript{188} John Hutchinson, Shenandoah Valley Battlefields Foundation, Personal Interview, 7 Feb. 2012.
\textsuperscript{189} Richardson, Personal Interview.
\textsuperscript{190} Ibid.
\textsuperscript{191} Hutchinson, Personal Interview.
and a water quality advocate, like the James River Alliance, can strengthen a funding request and facilitate success, while meeting multiple objectives set by government.

Raising funds for an acquisition project is often “a jigsaw puzzle,” and recognizing multiple values and their proponents, through CFPP, can help piece it together. In the Shenandoah Valley, for instance, a more conservative audience is less likely to be receptive to environmental organizations that protect open space or species. However, partnering with a battlefield preservation land trust can help environmental organizations achieve their mission through a more palatable convener. In this case, battlefield protection presents an opportunity for funders or land owners, who do not think of themselves as environmentalists, to contribute by instead protecting their heritage.

SVBF’s projects at Kernstown and Third Winchester are notable examples of using different funding sources and public values to piece together a successful project. At Kernstown, SVBF identified prime farmland soils on a working agricultural portion of the battlefield, which helped them obtain a $280,000 grant from the USDA Farm and Ranch Land Protection Program. The entire 315-acre, $5 million project brought together 10 different funders, including the City of Winchester, Frederick County, ABPP, Virginia Outdoors Foundation, and VA DHR. On the nearby Third Winchester battlefield, Trout Unlimited joined because Redbud Run, a cold water fish stream, ran through the property.

SVBF also maintains a working apple orchard and is developing an equestrian center on less historically significant portions of the Third Winchester site. Such non-Civil War interests tap into local cultural appreciation for the region’s “horse country” tradition.

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192 Richardson, Personal Interview.
and the annual “Shenandoah Apple Blossom Festival.” These features, including the
network of trails proposed for the site in partnership with Winchester Green Circle and
Redbud Run Greenway, all contribute to engaging multiple stakeholders, generating
community support, and funding from local governments.\textsuperscript{194}

Another project, executed by the Piedmont Environmental Council, preserved 26
acres of the newly created Rappahannock Station Battlefield Park in Remington, VA. This
site, the scene of a successful, dramatic Union assault on well-entrenched Confederates, is
situated along the Rappahannock River. PEC recognized its value as a Civil War site, but
also as a much-needed recreational access point to the river. In cooperation with Fauquier
County, the site is being converted into a local park. These additional features helped PEC
raise the needed funds to remove a modern, private home that remained onsite and help
restore the battlefield somewhat to its 1863 appearance.\textsuperscript{195}

On the other hand, a conservation effort on the Ball’s Bluff battlefield in Virginia
failed despite the land’s historic value and location between protected sites in the
ecologically significant and biodiversity-rich Potomac Gorge. The steep price tag, and lack
of awareness of the opportunity and additional values on site by other conservation
groups, doomed the project.\textsuperscript{196} The lesson from these examples is that there are other
funding sources if organizations look beyond the parameters of their original mission;
thinking about other public resources is an important first step.

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\textsuperscript{194} Zirkle, Personal Interview. \\
\textsuperscript{195} Richards, Personal Interview and Council, \textit{PEC Annual Report 2009} 13. \\
\end{flushright}
Partnerships can produce additional private and foundation funds. For a battlefield organization, it is easy to “stick with what you know,” and raise money from the usual suspects, especially if an acquisition opportunity is time-sensitive.\textsuperscript{197} However, environmental organizations have their own donors and foundations that they can tap. Many private, corporate, and family foundations, such as those that contribute to the Piedmont Environmental Council’s diverse mission of open space and battlefield protection, food security, and water quality, simply want to “see success and do good.”\textsuperscript{198} They may be enthusiastic about funding a multi-value preservation project, and may not be aware that battlefield protection efforts are occurring. While new grants might not be an option when rapid action is required, having a ready stable of partners and new sources of funds for matching grants is an important asset.

**Lobbying for Legislation and Appropriations**

Partnerships generate benefits not only for land acquisition projects in rural and suburban communities, but also on the floors of Congress and state capitols. The American Battlefield Protection Program, Transportation Enhancement (TE) funds, and Farm and Ranch Land Protection Program, along with state programs represent the bulk of conservation dollars for battlefield acquisition. Therefore, it is imperative that a strong coalition of advocates work to ensure their continued reauthorization and funding.

Traditionally, each interest or conservation group has maintained its own legislative presence, forming alliances during policy battles or crises. While these efforts have had

\textsuperscript{197} Wetherley, Personal Interview.  
\textsuperscript{198} Richards, Personal Interview.
some success, the recent assaults on the Land and Water Conservation Fund, among other programs, highlights the need for stronger, broader, and sustained coalitions to influence policy and protect conservation dollars:

“although individual groups tend to specialize, advocates are most effective when they form broad coalitions. Such coalitions may be fleeting: they are united by common policy goals, but connections among them may not last beyond a single policy battle. The cohesiveness of a coalition over time is a major determinant of its political effectiveness. Coalitions that cannot maintain a united front tend to fare poorly, particularly in the legislative arena.”

Coalitions offer many benefits, including access to legislators, broader reach to media, and greater capacity to mobilize the public and membership. They allow organizations that may not have the resources to purchase land, but instead have broad legislative capacity and influential relationships, like the Chesapeake Bay Foundation, to contribute to the overall conservation effort. Most importantly, fresh non-traditional alliances get increased attention from a diverse audience of policy makers. Rather than returning to congressional offices with the same entourage, new alliances allow coalition members to connect with the elected or administrative champions of each partner. This can often have the effect of mobilizing disparate congressional leaders on a particular issue, such as open space protection. While conservative legislators may not vote for additional environmental open space protection, many are supportive of battlefield preservation. For environmental groups, allying with the Civil War Trust (CWT) to protect ABPP or TE can provide access or produce the votes of champions they would normally not interact with, including conservative members of Congress like Rep. John Culberson (R-TX) and Sen. Jeff

Sessions (R-AL). Other champions for CWT include more liberal congressmen like Rep. Steve Israel (D-NY) and Rep. Dutch Ruppersberger (D-MD).  

When diverse organizations coalesce and are seen working jointly it provides political cover for elected officials to appear together and advance legislation, when they normally might not interact with one another. They also serve as a counterpoint to property rights activists, like the American Land Rights Association, who demagogue protection efforts as a land grab. In addition, strong, unique coalitions are instrumental in defeating attacks on LWCF and other conservation funding, like those by Reps. Lummis, Huelskamp, Broun, and Lamborn.

While these coalitions may not endure in the long-run, they have the potential to bridge divides and create working relationships that could persist into the future between interest groups and legislators, and even between legislators themselves. Building a collaborative legislative environment can make traditionally antagonist relationships on preservation issues less rancorous, and show that conservation is not a partisan issue. Ideally it could spawn new relationships to work on conservation legislation. At minimum, new and unique partnerships help disparate policy makers to speak a similar language, gain an appreciation for the broad benefits of open space protection, and recognize the broad spectrum of supporters and stakeholders engaged on the issue.

For battlefield land trusts, the need for additional legislative allies is especially pertinent. The economic crisis and sharp debate over the debt has put conservation dollars at risk and it has been especially difficult this session of Congress to get traditional

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200 Stoll, Personal Interview.
supporters to back historic land acquisition funding. \(^{202}\) Partnerships could play a particularly important role as ABPP’s Civil War Battlefield Protection Program comes up for reauthorization, in addition to its yearly funding appropriation. While the program has been financed at $9 million per year recently, just $1 million short of its authorized amount, many believe that it is unlikely to be funded at this level in the future. \(^{203}\)

Although there is a fear among historic land trusts and advocates that getting involved with environmental organizations in the larger LWCF fight will distract from achieving their line item funds, like ABPP, the pressing need and benefits of alliances are too profound to ignore. \(^{204}\) Despite its importance for battlefield protection, ABPP is mostly unknown among the public and Congress. Recruiting environmental organizations, each with their own memberships, networks, and influence, to weigh in with elected officials can make a substantial impact by increasing legislator focus and awareness on such a relatively anonymous program. In addition, alliances with novel partners can connect battlefield groups with new congressional champions, or at least gain their vote or co-sponsorship. Given the comparatively small size of ABPP funding, advocating for both is not likely to be a zero-sum game. As long as the goals of the partnership are clear, each coalition member will gain more as a whole working together than lobbying individually. Each partner offers access to legislators, added credibility, and support networks that can benefit the other.

Joint lobbying between conservation organizations, including battlefield land trusts, is already occurring. The 600-member LWCF Coalition and 1000-strong America’s Voice for

\(^{202}\) Stoll, Personal Interview.

\(^{203}\) Hawke, et al, Personal Interview and Stoll, Personal Interview.

\(^{204}\) Stoll, Personal Interview.
Conservation, Recreation and Preservation (AVCRP) are composed of a diverse group of conservation advocates, hunter/angler groups, and recreational equipment companies. AVCRP is co-chaired by the President of the Wilderness Society and John Nau III, Board Chairman Emeritus of CWT. These coalitions have produced effective group letters asking congressional leaders to protect conservation funding, and some group “lobby days” are starting to occur. Efforts like these should be strengthened, but even smaller alliances between battlefield groups and local conservation organizations, like PEC, can play an even more persuasive role in encouraging individual Congressmen to support their cause.

Coalitions between local organizations are especially important at the state level. Local groups add credibility, act as more effective ambassadors for community interests, and often have working relationships with state and local legislators. These alliances, such as the umbrella Virginia Conservation Network (VCN), help protect state land acquisition funds, and activate a broad network of members, activists, and community leaders. VCN, whose membership includes environmental, open space, and battlefield preservation groups, has helped protect, and continues to advocate for funding for:

- **Virginia Land Preservation tax credit**: $100 million per year, which has helped protect 514,000 acres (with an appraised value of $2.4 billion) including ecological core habitat, forests, prime soils, and historic districts.

- **Virginia Land Conservation Fund**: $28 million total in matching grants for historic, natural heritage, agricultural, and other lands, with $4 million allocated for 2009-2010. There has been $82 million in grant requests total since inception.

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208 Conservancy, Conserving Chesapeake Landscapes 32 and Council, PEC Annual Report 2010 5.
• **Purchase of Development Rights programs**: $4.25 million original investment for farmland preservation generating $45 million in matching grants in 20 localities. $1.2 million has been appropriated for 2011-2012.\[210\]

• **Funding for Best Management Practice (BMP) installations**: Around $70 million in cost sharing for farmers who seek to protect soil, water quality, and habitat.\[211\]

• **Virginia Civil War Sites Preservation Fund**: $5 million in grants since 2006, helping to protect 1,800 acres across the state ($2,800/acre). While passage was unanimous in the General Assembly, the struggle is to continue to fund the program at meaningful levels. VCN has pushed the state to allocated $2.5 million to this fund as part of the “Virginia Civil War Sesquicentennial Initiative.”\[212\]

Whether as a broad umbrella organization or smaller locally driven conservation partnership, non-traditional alliances should be replicated in other states. The flexibility and local knowledge that each group offers can complement the efforts of other coalition members, and produce comprehensive benefits for all parties involved. The most valuable result of such a partnership may be the start of a dialogue between diverse champions and advocates; it is often the most critical step to achieving lasting success.

**Bonds, Zoning, and Public Education**

Coalitions, especially those at the state and local level, can act as a support system for governments that seek to enact legislation to create historic districts, zoning overlays, or other regulations to protect historic sites and open space. These can include limits on housing density and land uses, or natural buffer requirements between developments and

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\[210\] Ibid.
\[211\] Ibid., 8.
\[212\] Ibid., 31-32.
open space or battlefields. Conversely, partnerships of local and regional organizations can mobilize opposition should a government rezone open space for development or allow construction on battlefields. For example, a broad coalition, including the Civil War Trust, National Parks Conservation Association, and Piedmont Environmental Council successfully pressured Orange County, VA and Walmart to stop the proposed construction of a Walmart on the Wilderness Battlefield. A similar coalition convinced the PA Gaming Control Board to reject a casino 0.5 miles south of Gettysburg National Military Park.

Coalitions can also assist governments in passing local tax levies or revenue and general obligation bond referendums to purchase land. These referendums can yield significant levels of funding; Pennsylvania passed the “Growing Greener Bond Fund” which provided $625 million over five years for open space protection and other environmental initiatives. Throughout the Chesapeake Bay Watershed, 31 local tax levy initiatives have generated almost $190 million for conservation funding. If local governments know assistance for ballot initiatives is available, and see the capacity of diverse, local coalitions to mobilize supporters, they may be more willing to advance these efforts.

In addition to working with, or sometimes confronting, governments, partnerships can increase outreach and public education about conservation opportunities for landowners and government officials. Cooperative education efforts, like the Conservation Fund, American Farmland Trust, National Trust for Historic Preservation, and APCWS (now

213 Porter, Dollar$ and Sense of Battlefield Preservation. 37.
216 Conservancy, Conserving Chesapeake Landscapes 25 and 35.
the Civil War Trust) handbook “Dollar$ and Sense of Battlefield Protection,” helps explain to policy makers and government officials the economic benefits of historic preservation.

Another document, produced by the Valley Conservation Council and Shenandoah Valley Battlefields Foundation, promotes farmland, open space, and cultural heritage protection by educating unaware Shenandoah Valley landowners about conservation options and incentives. These unique collaborative efforts help participating organizations communicate with property owners about multiple values, any of which might be important for the landowner: preserving local history, protecting the family farm, or conserving environmental features. On its own, an organization may not be able to address the particular concern relevant to a landowner, but as a team, they can identify the value that resonates most with the individual, and communicate in those terms or language.

Conservation easements and fee simple acquisitions are not the only preservation mechanisms that can be presented to landowners. Communicating all available options, as accurately as possible, is best suited for coalitions of experts for each opportunity, such as battlefield land trusts, open space advocates, farm and ranch land groups, and environmental conservation organizations. Some options include:

*Agricultural and Forest Districts*

These voluntary agreements must contain a minimum of 200 contiguous acres and are formed by individual or multiple landowners. Districts are ten-year agreements that enable landowners to qualify for land use tax rates, even if a locality rescinds a land use tax
ordinance. In addition, it sends a strong visual signal that this land is off limits for development. They are used in 30 districts and cover 684,000 acres of farmland in VA.217

**National Register Nominations**

Listing a property on the National Register of Historic Places informs local, state, and federal authorities of the existence of important historic resources. Although listing is purely honorary, and does not restrict individuals' use of their property, it can qualify landowners for tax credits.218 Nominations and placement on the register generates local pride and raises awareness of historic sites and events within a community, which often lead to increased easements and land donations from owners. They change the way that a community perceives its resource and lend credibility to efforts to preserve it.219

Register nominations offer some protections for historic lands if federal dollars, permits, or licenses are involved. As in the case of wetland-filling permits at Brandy Station or a road-widening project that uses transportation funds on a battlefield, if federal actions would impact a historic property, the government must consider and try to protect the historic value of the site. In addition, the federal Advisory Council on Historic Preservation must be given an opportunity to comment.220 Often, the most important step in preserving a site is getting it listed on the register, and nominations, submitted by state or federal historic preservation officers, can be prepared by private citizens or organizations.221

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218 Ibid., 87.
219 Richards, Personal Interview.
221 Andrus, Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields 4 and Porter, DollarS and Sense of Battlefield Preservation 50.
**Scenic Byways and Rivers Designation**

Virginia Byways are “roads that provide scenic values and lead to or lie within areas of historic, natural, or recreational significance.” The Scenic River designation “recognizes rivers and streams that possess outstanding scenic, recreational, historic, and natural characteristics.” Much like nominations to the National Register, these designations do not bring regulation on landowners or governments. However, they raise awareness and pride in local resources and attract tourists, which can encourage governments and citizens to implement land use measures to protect sites.

**Land Management**

Management of protected properties is another venue in which to build relationships between history and environmental land trusts. These partnerships can work for lands already protected by battlefield groups, or newly eased or acquired lands. With tens of thousands of acres of working battlefield lands protected, and hundreds thousands more left to preserve, environmental groups can implement or encourage the adoption of Best Management Practices (BMPs) on properties where they normally might not have access. They can also financially assist battlefield groups to acquire other multi-value properties by sharing costs and partnering on grant applications.

BMPs help protect soil, water quality, and habitat via multiple methods. In 2010 alone, Virginia farmers installed over 10,000 BMPs, preventing 2 million pounds of

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223 Ibid.
nitrogen from entering the Chesapeake Bay. Some BMPs consist of nutrient management plans, forest and grass riparian buffers, stream bank fencing for livestock, cover crops, and no-till zones, among others. Cost sharing is imperative in order to achieve successful adoption of these practices, and many programs exist to assist farmers with funding, meaning battlefield organizations will not have to foot the bill.

The Shenandoah Valley Battlefields Foundation is active in seeking agricultural support programs for their protected working lands and would welcome the assistance of environmental experts and advocates to help acquire land and install BMPs. They already tap public grants from the Chesapeake Restoration Fund (BMP installation) and USDA Community Reserve Enhancement Program (voluntary land retirement). Other grant opportunities include the State Acres for Wildlife Enhancement (SAFE), which supports warm season grass restoration that provides habitat for increasingly rare bobwhite quail, meadowlarks, bobolinks, and barn owls, or invasive species removal funds.

Additional Benefits

Partnerships have additional, less quantifiable benefits. New alliances help each participant better understand the other’s mission, capabilities, and responsibilities. They can strengthen existing community partnerships or spawn new ones, and create a network.

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228 Hutchinson, Personal Interview.
for collaboration and project referrals. In short, they can make everyone involved more effective and better informed.\textsuperscript{230}

Collaborating on projects can also bridge ideological differences between organizations. Battlefield groups, like CWT and SVBF, have a successful history of working with landowners and farm organizations such as the Farm Bureau and American Farmland Trust. They have also worked with water quality organizations, like the Chesapeake Bay Foundation (CBF), which have long campaigned for restrictions on grazing and fencing streams. CBF's advocacy has left “a sour taste” among farmers and agricultural interests.\textsuperscript{231} Battlefield land trusts can act as the keystone to start a dialogue and build a partnership, or at least achieve neutrality, between groups, which can lead to opportunities and success.

\emph{Preservation vs. Restoration}

The opportunities provided by partnerships are immense, but they require mutual understanding, communication, and flexibility. One of the most significant roadblocks for collaboration between history and environmental land trusts is over the appearance and management of a site post-acquisition. Many sites remain as working, agricultural lands, but may have secondary-growth forests on retired fields, or relatively new buffers of trees along waterways. Others may look significantly different from their 1860’s appearance.

During the initial phase of battlefield protection, the National Park Service intended to preserve battlefields as closely as possible to their wartime appearance.\textsuperscript{232} In recent years, scholars and preservation organizations have recommended that groups restore

\textsuperscript{230} Abbett, “Planning Partnerships Work” 13.
\textsuperscript{231} Stern, Personal Interview.
\textsuperscript{232} Andrus, \textit{Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields} 2.
battlefields to their approximate Civil War appearance to help visitors better understand battles. This approach can breed divisive conflict and hinder potentially successful partnerships – water quality or habitat focused environmental organizations would certainly not contribute resources to protect sites if those riparian buffers, meadows, or other resources were eliminated in favor of restoring a field. With so much potential from partnerships, organizations must understand the challenges of restoring battlefields and find a balance to meet the objectives of all parties involved.

The first challenge is more philosophical; what should a battlefield be restored to look like? Some sites are home to historical and cultural events from other time periods. The Piper Farm at Antietam National Battlefield is home to one of the few remaining early 20th century farm complexes, and restoration to the site’s Civil War appearance would remove it. PEC has protected over 700 acres at President Madison’s home of Montpelier, VA. In addition to presidential history, this land was home to a large Civil War encampment, boasts the first open to the public home of a slave-turned-freedman, and contains one of the last remaining tracts of old growth forest in the Southeast. Restoring a site to the appearance of one time period or resource threatens other values.

It is also important to understand that “battlefields cannot be frozen in time”; they are living landscapes that were host to uniquely ephemeral events. After being marked by debris and trenches, battlefields went back to “normal” as fields. Some were later turned

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233 Rainey, ”The Memory of War: Reflections on Battlefield Preservation,” 81 and Porter, Dollar$ and Sense of Battlefield Preservation 32.
236 Andrus, Guidelines for Identifying, Evaluating, and Registering America’s Historic Battlefields 11.
into smaller versions of “Central Park,” with cropped grass and picnicking families.\textsuperscript{237} Organizations like SVBF realize that it does not make sense to hold land in a static state; it is artificial.\textsuperscript{238} Instead, battlefields can serve as parks for families and Frisbee players, birding sites, and in the case of Manassas one winter, cross-country ski terrain.\textsuperscript{239} Battlefield and open space preservation cannot be limited to one narrow group of advocates. More constituencies are needed to gain support, whether they are families seeking public open space or environmentalists protecting a riparian buffer. Preserving the overall integrity of a site and general historic appearance is more important than restoring each inch. On the other hand, battlefields should not be fully developed for alternate public uses like miniature Central Parks or baseball fields – a middle way can be achieved.\textsuperscript{240}

There are also practical reasons that limit the restoration of battlefields to their wartime appearance. Although the National Park Service began an initiative to return Gettysburg to its historic landscape appearance, including cutting 125 acres of 150 year old trees, many organizations, like SVBF, realize that they are not a federal agency and do not have the funds to engage in such efforts. Without the money to restore, it is not even on SVBF’s agenda, and seems “more like an academic argument” than reality.\textsuperscript{241}

While partial restoration to obtain a general feeling of a site may be appropriate, interpretation and protecting the landscape overall is more important. Signage and visuals explaining what the site would have looked like, and the environmental importance of why the riparian buffer or meadow is there instead of a field, can educate visitors on both the

\textsuperscript{237} Rainey, The Memory of War: Reflections on Battlefield Preservation," 69 and 79.
\textsuperscript{238} Hutchinson, Personal Interview.
\textsuperscript{239} Rainey, The Memory of War: Reflections on Battlefield Preservation," 69 and 78.
\textsuperscript{240} Hutchinson, Personal Interview.
\textsuperscript{241} Zirkle, Personal Interview.
environmental and historic features of a site, and incorporate the missions of all partners. Given the current state of land conservation, and the dire outlook for battlefield lands, the primary goal for partners should be “preserve first, deal with what to do with it later.”

Tools for the Future: New Market Mechanisms

As public funding stagnates or declines further, private ecosystem markets might be a place for land trusts to engage in conservation. Virginia has operated a nutrient pollution trading program since 2005, and is considering expanding it in order to achieve Total Maximum Daily Loads (TMDL) of water pollution for the Chesapeake Bay. To assist in generating funds from this market-based trading scheme, battlefield organizations may find it advantageous to participate in the program and sell offsets for point and nonpoint pollution sources. Working with environmental organizations that have expertise in market-systems can help them navigate such programs, as well as implement BMPs that generate even more in funding and offsets.

Additional market-based mechanisms are already in place, or being developed. Each of these represents an opportunity to raise money from offsets and pollution credits while promoting conservation. These include: carbon sequestration, wetland mitigation banking, and other payments for ecosystem services.

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242 Lott, Personal Interview.
244 Conservancy, Conserving Chesapeake Landscapes 29-30.
IX. OTHER APPLICATIONS

The *Connecting Future Partners Process* was generated with a focus on creating partnerships to protect Civil War battlefields. However, it is not limited to conserving lands just of this conflict. This strategic approach can be applied wherever cultural or historic events have a strong geographic connection to the land. Just as we are commemorating the 150th Anniversary of the Civil War, we are also in the midst of the bicentennial of the War of 1812 (2012-2015). Congress has allocated funding to ABPP to protect sites associated with that war, and *CFPP* could be adapted to find partnerships to protect those lands.245 Throughout the country, other sites with cultural or military significance could benefit from this collaborative approach, including the Oregon Trail, Western cattle drives, Mexican War, and Trail of Tears, to name a few. With conservation advocates across the country and abundant GIS resources, there are few limits to future partnerships and the benefits they provide.

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245 Stoll, Personal Interview.
Appendix A. Table of Historic, Available, Protected, and Lost Civil War Battlefield Lands from CWSAC Draft State Updates.246

<table>
<thead>
<tr>
<th>State</th>
<th>Historic</th>
<th>Available</th>
<th>Protected</th>
<th>Lost #</th>
<th>Lost %</th>
<th>Protected vs. available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>102,400</td>
<td>7,000</td>
<td>4,600</td>
<td>95,400</td>
<td>93.16%</td>
<td>65.71%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>139,000</td>
<td>78,692</td>
<td>9,627</td>
<td>60,308</td>
<td>43.39%</td>
<td>12.23%</td>
</tr>
<tr>
<td>CO, ID, NM</td>
<td>84,000</td>
<td>70,626</td>
<td>3,927</td>
<td>13,374</td>
<td>15.92%</td>
<td>5.56%</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>9,103</td>
<td>0</td>
<td>1,424</td>
<td>9,103</td>
<td>100.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Florida</td>
<td>25,500</td>
<td>2,301</td>
<td>6,748</td>
<td>23,199</td>
<td>90.98%</td>
<td>293.26%</td>
</tr>
<tr>
<td>Georgia</td>
<td>231,500</td>
<td>59,028</td>
<td>17,700</td>
<td>172,472</td>
<td>74.50%</td>
<td>29.99%</td>
</tr>
<tr>
<td>Indiana</td>
<td>3,800</td>
<td>3,795</td>
<td>5</td>
<td>5</td>
<td>0.13%</td>
<td>0.13%</td>
</tr>
<tr>
<td>Kansas</td>
<td>18,770</td>
<td>12,250</td>
<td>1,543</td>
<td>6,520</td>
<td>34.74%</td>
<td>12.60%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>77,379</td>
<td>15,412</td>
<td>2,335</td>
<td>61,967</td>
<td>80.08%</td>
<td>15.15%</td>
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<tr>
<td>Louisiana</td>
<td>190,000</td>
<td>73,000</td>
<td>6,100</td>
<td>117,000</td>
<td>61.58%</td>
<td>8.36%</td>
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<tr>
<td>Maryland</td>
<td>91,000</td>
<td>45,000</td>
<td>15,000</td>
<td>46,000</td>
<td>50.55%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2,500</td>
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<td>22</td>
<td>0</td>
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<td>0.88%</td>
</tr>
<tr>
<td>Missouri</td>
<td>175,000</td>
<td>89,000</td>
<td>5,600</td>
<td>86,000</td>
<td>49.14%</td>
<td>6.29%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>194,000</td>
<td>102,000</td>
<td>8,000</td>
<td>92,000</td>
<td>47.42%</td>
<td>7.84%</td>
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<tr>
<td>North Carolina</td>
<td>240,000</td>
<td>165,000</td>
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<td>75,000</td>
<td>31.25%</td>
<td>4.85%</td>
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<tr>
<td>North Dakota</td>
<td>42,210</td>
<td>42,000</td>
<td>300</td>
<td>210</td>
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<td>0.71%</td>
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<tr>
<td>Ohio</td>
<td>14,560</td>
<td>14,545</td>
<td>11</td>
<td>15</td>
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<tr>
<td>Oklahoma</td>
<td>29,700</td>
<td>27,600</td>
<td>1,400</td>
<td>2,100</td>
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<td>5.07%</td>
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<tr>
<td>Pennsylvania</td>
<td>49,700</td>
<td>26,000</td>
<td>8,200</td>
<td>23,700</td>
<td>47.69%</td>
<td>31.54%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>34,600</td>
<td>14,500</td>
<td>4,800</td>
<td>20,100</td>
<td>58.09%</td>
<td>33.10%</td>
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<tr>
<td>Tennessee</td>
<td>386,000</td>
<td>95,000</td>
<td>20,000</td>
<td>291,000</td>
<td>75.39%</td>
<td>21.05%</td>
</tr>
<tr>
<td>Texas</td>
<td>44,000</td>
<td>2,695</td>
<td>7,000</td>
<td>41,305</td>
<td>93.88%</td>
<td>259.74%</td>
</tr>
<tr>
<td>Virginia</td>
<td>1,000,000</td>
<td>502,000</td>
<td>74,000</td>
<td>498,000</td>
<td>49.80%</td>
<td>14.74%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>102,000</td>
<td>35,000</td>
<td>14,400</td>
<td>6,700</td>
<td>65.69%</td>
<td>41.14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,286,722</td>
<td>1,484,944</td>
<td>220,742</td>
<td>1,801,778</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

246 Program, Draft State by State Updates to the Civil War Sites Advisory Commission Report.
Appendix B. Approval Letter for Use of ABPP GIS Data from Paul Hawke, Chief, ABPP

United States Department of the Interior
NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, D.C. 20240

OCT 19 2011

Mr. Martin D. Smith, Ph.D.
Associate Professor of Environmental Economics
Duke University
P. O. Box 90328
Durham, NC 27708-0328

Dear Professor Smith:

Thank you for writing to us on behalf of Mr. Yaron Miller and for accepting responsibility for the security of the data he has requested. We enjoyed meeting Mr. Miller in August and are pleased to assist him as he begins his Masters Project.

The enclosed CD contains GIS shapefiles of Civil War battlefield site boundaries established by this office. Duke University may use these data only for the purposes of Mr. Miller’s Masters Project. Because these data indicate the locations of potentially sensitive historic and archeological sites, and because most of the land in question is in private ownership, distribution of these data for any other purpose or to any other individual or entity is prohibited in accordance with Section 304 of the National Historic Preservation Act (16 USC 470w-3). If Duke University receives requests to use these data for other purposes, we ask that you refer those inquiries to us directly.

If you or Mr. Miller have questions about battlefield preservation issues generally, please do not hesitate to contact me at 202-354-2023 or paul_hawke@nps.gov, or Ms. Tanya Gossett at 202-354-2019 or tanya_gossett@nps.gov. Should your department’s GIS specialists have technical questions about the data, please have them contact Ms. Kathleen Madigan at 202-354-2036 or kathleen_madigan@contractor.nps.gov.

We look forward to hearing more about Mr. Miller’s project as he proceeds. We hope it will provide a useful stewardship model for both environmentalists and historic preservationists.

Yours sincerely,

Paul Hawke, Chief
American Battlefield Protection Program

Enclosure

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247 Hawke, “Approval Letter for Use of ABPP GIS Data.”
X. References


