



Cultural Landscape Report Update

Introduction

Background

Wilson's Creek National Battlefield protects the historic landscape associated with the August 10, 1861, Civil War Battle of Wilson's Creek, the war's second battle. Wilson's Creek battlefield became a unit of the National Park System on April 22, 1960, in order to preserve and commemorate the Battle of Wilson's Creek. Federal protection of this significant ground followed private efforts by the Wilson's Creek Battlefield Foundation to secure key terrain and commemorate the events of the battle. The private efforts resulted in the establishment of a 60-acre reservation on so-called Bloody Hill in 1951 that contained a monument erected in 1928 to mark the site where Union Gen. Nathaniel Lyon was killed in battle. Lyon was the first Union general to lose his life during the Civil War.

In 2004, John Milner Associates, Inc. (JMA) completed a Cultural Landscape Report (CLR) that considered the historical evolution, existing composition, and National Register of Historic Places historic significance of Wilson's Creek National Battlefield. The documentation and assessment of the historic battlefield landscape served as the foundation for a treatment plan included as part of the CLR that addressed park objectives, issues, and concerns for the future protection, management, and interpretation of the battlefield. The treatment plan includes actionable items that require compliance with federal policies before they can be implemented. Several action items have already been implemented based on individual compliance related assessments. The park seeks to continue implementing the treatment plan included in the CLR based on preparation of a comprehensive Environmental Assessment. In support of the assessment, physical landscape changes that have occurred within the park since 2004 are documented herein to establish a baseline for the Environmental Assessment.

The National Park Service engaged a team that included CHG and Liz Sargent HLA to prepare the CLR Update and EA. CHG acquired JMA in 2014, and so was a logical choice to prepare the EA. Liz Sargent of Liz Sargent HLA was employed with JMA at the time the original CLR was prepared, and served as primary author and project manager for the report, and so was invited to participate in the CLR Update and EA as well.

This CLR Update is intended to bridge the thirteen years since the original CLR was completed by documenting changes that have occurred within the landscape, as well the National Park Service's evolving management goals and objectives for the property. The updated existing conditions documentation that resulted from this study has yielded the basis for an action alternative to be assessed as part of the EA.

Scope of Work and Methodology

The scope of work provided to the CHG team by the National Park Service to prepare an Environmental Assessment for the Wilson's Creek National Battlefield CLR, which led to preparation of the CLR Update, included the following statement of purpose:

This project involves the development of an Environmental Assessment (EA) for the purpose of satisfying the compliance requirements for the implementation of the Wilson's Creek National Battlefield Cultural Landscape Report (2004)(CLR). The purpose for preparing the EA is to identify and disclose the potential effects of a reasonable range of alternatives developed to address the implementation actions in the report including but not limited to vegetation treatments, orchard restoration, open fields management, trail system layout, deer management, viewshed management and visitor services like interpretive waysides.

This project consists of executing National Environmental Policy Act (NEPA) compliance, in the form of an EA, for treatment recommendations found in the 2004 CLR. In September of 2004 Cultural Landscape treatment recommendations and guidelines were prepared to provide Wilson's Creek NB with a vision for the protection of the park's cultural landscape in order to sustain long-term management and interpretation. The recommendations were created over a five year period of time and are a synthesis of work undertaken by John Milner Associates, Inc. and their sub-contractors. Although the CLR was not intended to duplicate the work of a Long-Range Interpretive Plan, the connection between management of the park's cultural, natural, and historic resources and interpretation became a focus of the treatment recommendations, particularly as they addressed the objectives of the GMP's preferred management alternative.¹

1. National Park Service, Midwest Regional Office, Wilson's Creek National Battlefield Environmental Assessment (July 2016), 1.

Study Area

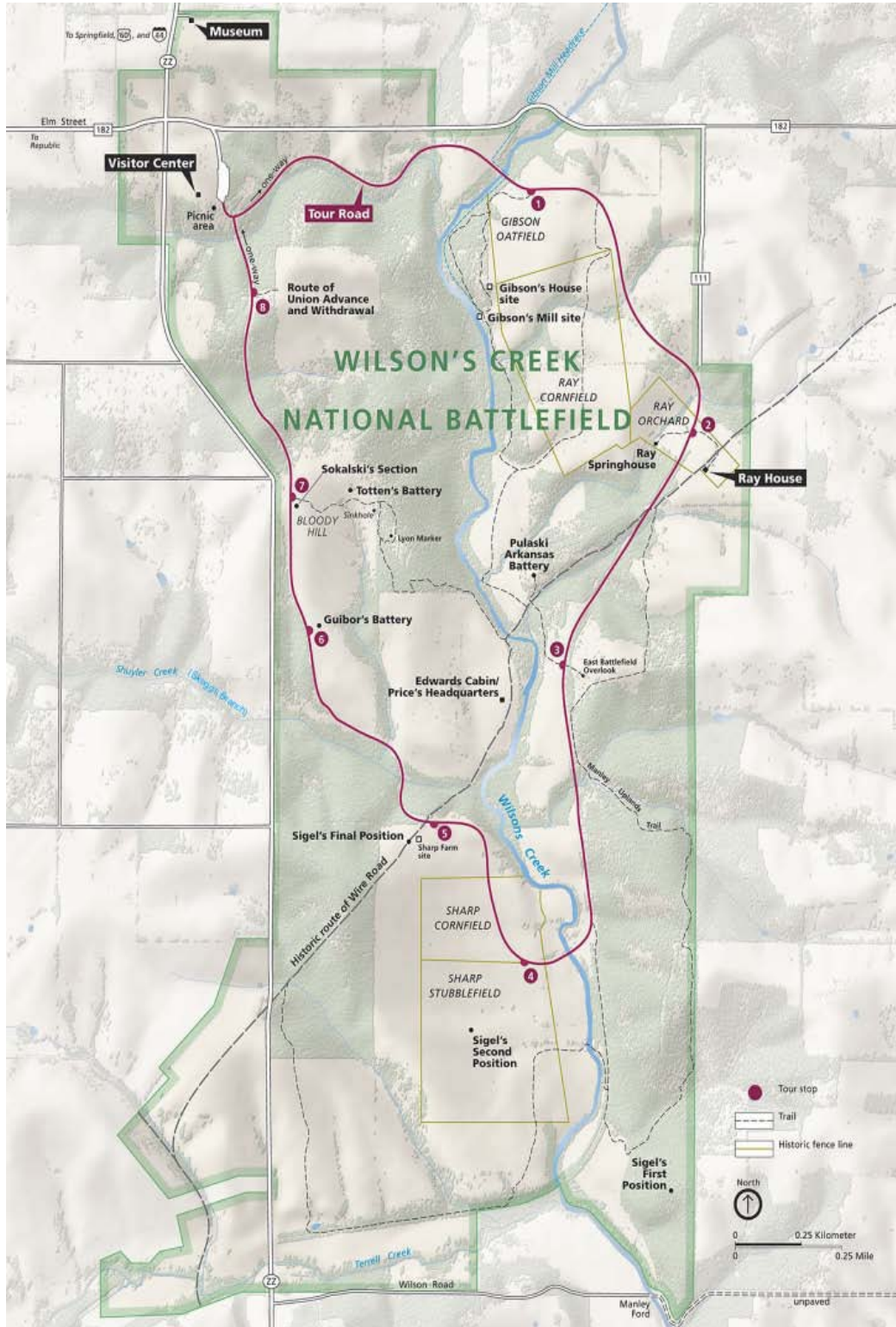


FIGURE 2. Ungrid map of Wilson's Creek National Battlefield, illustrating parcels acquired since 2004.

Wilson's Creek National Battlefield is located at 6424 West Farm Road 182 near Republic, Missouri. The county line between Christian and Greene counties cuts west to east across the middle of the park.



FIGURE 3. View of a cannon positioned at Wilson’s Creek National Battlefield. (LSHLA, 2016)

Summary of Findings

The pages that follow provide a summary of changes that have occurred within Wilson’s Creek National Battlefield, including the expansion of the park to include additional battlefield land, and the efforts that have been conducted to date to implement the CLR treatment plan. This CLR Update also documents current park management goals and objectives, some of which have emerged since 2004 through management of the battlefield landscape, information derived from research and investigation, changes to the surrounding area, evolving federal policy, and park planning initiatives.

The majority of the historical and existing conditions documentation information, National Register level significance evaluation, and treatment plan included in the 2004 CLR continues to accurately portray conditions within the park, and to guide appropriate resource protection and interpretation. While the CLR Update does not suggest any wholesale changes to the information conveyed in the earlier document, the physical history of the park since 2004, and the manner in which the park relates to the context of the landscape that surrounds it are addressed herein. As noted, also documented are present-day National Park Service management objectives and goals for Wilson’s Creek National Battlefield, some of which drive changes to the CLR treatment plan that is assessed in the EA.

Examples of the changes that are addressed in the CLR Update and EA include the following:

- The park has expanded by 280 acres to a size of 2,029 acres. An additional 172 acres of battlefield land have been placed under conservation easement since 2004. Much of the newly acquired land fell outside of the original 1960 legislative boundary for the park. A Congressionally-authorized boundary expansion in 2004 allowed for the acquisition of additional parcels located on land identified as

important to protect. The CLR Update addresses the park landscape that falls within the expanded boundary, and applies the principles espoused in the 2004 CLR to the parcels that have since been acquired. The CLR Update follows the guidance afforded in a 2007 General Management Plan Amendment in addressing treatment of the more recently acquired parcels.

- One of the parcels acquired by the park is located north of the entrance. It formerly served as the General Sweeny Museum. The property and the renowned collection of Civil War artifacts housed in the museum are being integrated into park operations. The property is currently used for park storage and office space.
- Several treatment recommendations included in the 2004 CLR have been implemented. These include the planting of an orchard exhibit at the Ray House; construction of period appropriate fences around the Ray and Sharp cornfields; establishment of crop exhibits; rehabilitation of the Edwards Cabin/Price's Headquarters site to interpret an important element of the battlefield; repaving of the tour road to diminish its visual impact within the landscape; protection of the glade landscape from visitor access at Bloody Hill; improvement of the picnic area; and enhanced vegetation management to improve the health of native plant communities and water resources.
- The application of prescribed fire to managing vegetation has increased, helping to reduce the threat of invasive species and post-agricultural weed growth, while helping to open up views of the landscape that allow visitors to better understand the events of the battle.
- The visitor center has been expanded to include a larger library, meeting room, and offices, and houses exhibits that have benefitted from the inclusion of artifacts from the former General Sweeny Museum.
- An update to the Civil War Sites Advisory Commission *Report on the Nation's Civil War Battlefields* was prepared for Missouri in 2011. Based on consideration of new scholarship and assessment of the battlefield, the update has suggested that the battlefield
- Park interpretive staff have developed recommendations for trail expansions, viewsheds, interpretive and contemplative nodes, wayside exhibits, and cannon placement that support visitor understanding of the Battle of Wilson's Creek, and are consistent with the CLR and 2009 Long-Range Interpretive Plan.
- The deer population within the park is much higher than the surrounding area. Deer have become a challenge for park managers, and are a safety concern within as well as outside of the park. The park is edged to the north and west by roads that carry high volumes of fast moving traffic. Deer regularly migrate out of the park into the road, causing accidents that injure motorists, do damage to vehicles, and result in the death and maiming of animals. The park is interested in developing strategies for managing deer and reducing the conflicts between deer and humans in and around the park.

The CLR Update documents and addresses each of these changes to the park and park management. The EA considers an action alternative that is comprised of CLR treatment recommendations not yet implemented by the park that remain relevant, additional recommendations that have emerged from park planning efforts, consideration of the way in which recently acquired parcels can be integrated into the park experience, and deer management strategies in order that the park might continue to move forward with implementation.



Update to Chapter Two: Site Physical History

1 The information provided in the Site Physical History chapter of the 2004 CLR continues to convey the level
2 of detail necessary to support the conclusions drawn in the CLR. However, several changes have been made
3 to the cultural landscape of the park since 2004; these are recorded below. In addition, recent scholarship has
4 uncovered additional information regarding the events of the Battle of Wilson's Creek that has resulted in a
5 more detailed understanding of troop movements and the way in which the landscape influenced military
6 activities. This information, and the implications for interpretation and land management, are also conveyed
7 below.

8 **Recent Scholarship, Battle of Wilson's Creek and Park** 9 **Development**

10 The Battle of Wilson's Creek, or Oak Hills as it was known to the Confederacy, constituted the second major
11 battle of the Civil War. The battle occurred within the Wilson's Creek valley and adjacent uplands on August
12 10, 1861, as both the Union and the Confederacy fought to control Missouri, a border state with a majority of
13 residents who wished to remain neutral, and a governor who was a Confederate sympathizer. The Battle of
14 Wilson's Creek pitted 5,400 troops under the command of Union Gen. Nathaniel Lyon against a Confederate
15 force 12,000 strong that included Maj. Gen. Sterling Price commanding the Missouri National Guard, and
16 troops under the command of Generals Ben McCulloch and N. Bart Pearce. The battle, which resulted in the
17 death of General Lyon, was effectively lost by the Federals. However, Union forces were able to maintain
18 control over Missouri, the primary objective of the battle.

Two sources that proved important to the development of the 2004 CLR were *Wilson's Creek: The Second Battle of the Civil War and the Men Who Fought It*, and *Kansans at Wilson's Creek; Soldiers' Letters from the Campaign for Southwest Missouri*, both co-authored by William Garrett Piston and Richard W. Hatchett III.

Additional new scholarship that has emerged since 2004 includes

- Patrick, Jeff. *Campaign for Wilson's Creek: The Fight for Missouri Begins*. Abilene, Texas: McWhiney Foundation Press, May 2011.
- _____. "Missouri's Bloody Hill; Civil War Erupts at Wilson's Creek." *Hallowed Ground Magazine*, Summer 2011.
- Hess, Earl J., Richard W. Hatcher III, William Garrett Piston, and William L. Shea. *Wilson's Creek, Pea Ridge, and Prairie Grove*. Lincoln: University of Nebraska Press, 2006.
- Langum, Connie. "The Battle for Wilson's Creek; Creation and Evolution of a National Park." In *Hallowed Ground Magazine*, Summer 2011.

Park Development Following Completion of the 2004 CLR

Events Occurring in 2003 Continuing to Impact the Landscape after 2004

In April 2003, the visitor center was expanded to include a new 7,200 square foot library annex.

In May, an F2 tornado crossed the park, destroying 3,500 feet of split rail fence and 6,400 feet of boundary fence, while downed trees blocked 6,450 feet of trail.

2004

Professor William Garrett Piston, co-author of *Wilson's Creek: The Second Battle of the Civil War and the Men Who Fought It*, and *Kansans at Wilson's Creek; Soldiers' Letters from the Campaign for Southwest Missouri*, testified before the Congressional House Subcommittee on National Parks on behalf of the need to expand Wilson's Creek National Battlefield. Piston's testimony contributed to passage of the Wilson's Creek National Battlefield Boundary Adjustment Act of 2004.¹

A 102-acre parcel was placed under conservation easement in 2004 using the U.S. Department of Agriculture (U.S.D.A.) and Ranch Protection Program. Funding for the easement was provided by the U.S.D.A., private funds, and monies raised by the Wilson's Creek National Battlefield Foundation.

A *Fire Management Plan* was completed for the park.

Three projects were completed within the park during September of 2004. One of these involved replacement of the thermal windows in the park visitor center based on PMIS project 41751. The second was the painting of the Ray House based on PMIS project 97849. The PMIS project statement indicates that the house requires repainting every five years to remain in good condition. The third project was the rehabilitation of Building #4, the Mechanics Shop, based on PMIS project 102871. Efforts conducted in association with the project included the replacement of all roof gutters and downspouts; power washing,

¹ H.R. 4481, amending Public Law 86-434 establishing Wilson's Creek National Battlefield.

priming, and painting the exterior; installing security bars on the windows, and replacement of an air compressor to repair the cooling system.

In December 2004, an **Environmental Assessment** of the park's **Fire Management Plan** was completed. The fire management plan addresses park goals associated with the protection of threatened and endangered species by avoiding or mitigating adverse impacts associated with wildland fire; the appropriate use of prescribed fire for fuel management and to increase the distribution and abundance of Missouri bladderpod (*Lesquerella filiformis*), a federally-listed endangered plant species, as well as to manage natural resources in support of the rehabilitation of and interpretation of the historic cultural landscape, for the benefit of natural resources, and to maintain the ecological integrity of habitat and improve glade habitat in resource preservation zones. The fire management plan also addresses the use of prescribed fire to reduce exotic species distribution and abundance and mitigate significant increases in exotic species due to wildland fire, prescribed fire, and suppression activities. Finally, the plan addresses the park's goal of increasing public awareness of the role of fire in natural processes and the use of fire in the restoration of natural habitat and rehabilitation of the cultural landscape by conducting interpretive programs during the prescribed fire season. The plan indicates measurable objectives for several vegetation management areas throughout the park.

2005

In 2005, Wilson's Creek National Battlefield, in collaboration with the Wilson's Creek Foundation, secured the purchase of the 19.84-acre General Sweeney's Civil War Museum property (Tract 01-109). The museum and collection was purchased for approximately \$4.5 million. The museum was considered to house one of the most outstanding private collections of Civil War artifacts and memorabilia in the world. The museum was created by Dr. Tom Sweeney in the early 1990s, and named for his ancestor, Gen. Thomas Sweeney, who fought in both the Mexican-American and Civil wars. Acquisition of the property followed passage of the Wilson's Creek National Battlefield Boundary Adjustment Act of 2004.

The Civil War Trust included Wilson's Creek on its 2005 list of most endangered Civil War battlefields, indicating that a proposed 1,500-unit residential subdivision threatened to destroy key parcels west of and outside of the park boundary. The subdivision was of concern for the potential that it might serve as a magnet for additional development.²

Six projects involving repair and construction were completed within the park during 2005. In March, the wood stringers associated with the **Wire Road (County) bridge** were replaced after they were assessed during Federal highway inspections as unsafe for ongoing pedestrian and equestrian use due to deterioration caused by debris and water getting trapped in the during heavy rain storms. The work was detailed in PMIS project 102730. The bridge, built in 1910, is one of the few remaining metal truss bridges in the local area. It is an important feature of the Telegraph (Wire) Road (HS-11), a structure of national significance that is also related to the park's legislated significance. The road was used as a means to transport military equipment and troops throughout the Civil War. It was associated with engagements at Dug Springs, Wilson's Creek, and Pea Ridge. Work, completed by a contractor, entailed the removal, disposal of, and replacement of all wood decking, runners, and stringers associated with the steel truss bridge. For safety purposes no more than 1/3 of the bridge was dismantled at once. The wood components were replaced with new oak bridge timbers, including approximately 100 runners, 50 decking planks, and 24 stringers. The new timbers were of full dimension. Decking was fastened with new

² Civil War Trust website.

hardware consisting of 30 Penney nails. Stringers were fastened with new hardware of the same size, dimensions, and strength as the original.

In May, the **McElhaney smokehouse** (Building #7) was rehabilitated based on PMIS project 102734. The building was painted, re-roofed, the foundation was patched, and the doors and windows were re-built and replaced. In July, the park completed emergency stabilization of the McElhaney barn based on PMIS project 87561. Work entailed completion of a project initiated in 2000 after structural problems were found to be more extensive than previously thought. The park repaired sills, support beams, and exterior siding. Emergency stabilization is needed to correct drainage problems leading to deterioration of barn structural wood beams and sills. A culvert was needed to redirect overland flow of stormwater.

Replacement of two rotted support beams and repair of four other support beams was required, along with replacement of stairs in the northwest corner of the barn that did not meet code. Holes in the siding also needed repair, along with replacement of sills. Materials and supplies were purchased before the end of the fiscal year. Base paid park staff worked over the fall, winter, and summer to complete the project. The un-safe stairs were replaced. All deteriorated sills were replaced along with two support timbers, and repairs to the inadequate drainage, and repair of holes in the siding. A ramp was constructed to safely access the front door while providing drainage away from the buildings foundation.

Another project completed in July 2005 was stabilization of the **Edwards Cabin** based on PMIS project 106302. The cabin, built in c. 1850 on a different site and moved to the park c. 1965, was placed on the location of the Edwards Cabin during the Civil War Battle of Wilson's Creek. The original Edwards cabin was the location of General Price's headquarters and serves to mark this important site. The rehabilitation project entailed taking the cabin apart, digging and pouring footings, the installation of roof trusses, a framework, and shingles, replacement of several support logs and reassembly of the log structure, chinking and white washing of the logs, installation of windows and doors, construction of a porch, construction of a fireplace and chimney, plastering of the interior, construction of a floor, and fabrication of two new doors, steps, and a ramp. Prior to the completion of this project, the cabin was protected under plywood and only minimally interpreted. The Wilson's Creek National Battlefield Foundation funded 75 percent of the project, which was estimated to cost \$40,000. The goal of the project was to improve a period structure that could be used as a more integral interpretive tool to increase visitor understanding of and appreciation for the battlefield. Visitors regularly complained about the poor condition of the relocated structure.

In September, the **Inventory and Monitoring offices** (Building #20A) was reroofed based on PMIS project 96665. The project involved removing and disposing of the existing felt paper and one layer of asphalt shingles; inspection and repair of decking; and the installation of #30 felt and class A, 260-300 lb., premium laminate multi-layered asphalt shingles. The roof on the building was 8 years old, had leaked several times, and had been patched. Work included stripping the exterior down to the plywood decking, inspecting the framing, installing felt paper and asphalt shingles. Additional work consisted of power washing steps and handicap ramps, installing non-slip surface, and repairing skirting on the building.

In December, visitor hazards associated with the **Wire Road Trail** were removed based on PMIS project 111416. The work entailed replacing 120 square feet of asphalt and a culvert across a spring branch where a wash out had occurred at the Shuyler Creek low water crossing, removal of encroaching vegetation for 1 mile along both sides of the Wire Road trail, and repair of 4,200 linear feet of ruts approximately 1 foot wide and 8 inches deep.

2006

The park acquired a **145.28-acre parcel** that included land between the southern boundary and Old Limey Road and additional land to the west of Highway ZZ in 2006 (Tract 01-126). Two additional parcels—Tracts 01-127 and 01-128—were acquired west of Highway ZZ near the park’s southwestern corner. These parcels totaled 11.75 acres.

Also secured in 2006 was an **easement for a 70-acre parcel** placed within the U.S.D.A. Farm and Ranch Protection Program.

In 2006, the park completed nine projects involving PMIS funding with an impact on the historic landscape.

In March, repairs were completed in association with the **carpenter shop** (Building #12) based on PMIS project 102964. The project entailed installation of new gutters and downspouts; patching all holes in the exterior siding; power washing, priming, and painting all exterior siding and roofing, and sealing of cracks in the concrete floor.

Visitor hazards associated with the **Springhouse Trail** were also eliminated based on PMIS project 111418. The project entailed construction of two culverts and a fill path. The project was designed to address health and safety deficiencies associated with the Ray Springhouse Trail, which provides access to the structure north of the Ray House. An earlier boardwalk used by visitors had been washed out.

In July, the roof associated with the **Ray House** was replaced based on PMIS project 102763. The project was designed to address structural deficiencies including cupping and breaking of the shake shingles on the Ray House, and problems with roof leaks. The project entailed removal and replacement of all wood shakes, thinner than regular wood shingles, removal of all old nails from the sheathing, replacement of five damaged sheathing boards, replacement of damaged flashing and grout, installation of zinc roofing strips to prevent moss buildup, and installation of a fall protection system to provide safe roof access for future roof maintenance. Eight new lightning rods were then added to the roof. Last replaced in 1984, the roof was identified as requiring replacement in 2000 during a site visit to the park conducted by National Park Service regional architect Al O’Bright in 2000. During the project, a covered walkway was constructed to provide safe visitor access during the project.

In September, the headquarters and visitor center grounds were rehabilitated based on PMIS project 102822. The project entailed replacement of **four benches near the visitor center**, and 1,300 linear feet of deteriorated **split rail fencing surrounding the visitor center grounds**. The new benches were identified as low maintenance to reduce cyclic maintenance costs. YCC labor was used in the project.

In October, foundation cracks in the **McElhaney storm cellar** were repaired based on PMIS project 102976. The project entailed repair of cracks in 160 square feet of concrete walls and replacement of a wooden door. The work resulted in establishment of a dry facility that could be used as an emergency tornado shelter.

Additional work conducted in October included elimination of hazards associated with the **Ray Cornfield Trail** based on PMIS project 111415. The project involved filling approximately 1 mile of ruts measuring up to 12 inches deep and the addition of trail chat; removing encroaching vegetation from both sides of 1.1 miles of trail; installing four water bars; and replacing two directional signs that were no longer legible.

In November, fire suppression systems were replaced in the **Ray House, Building #6, the McElhaney House, and visitor center** based on PMIS projects 77435, 77427, 77441. The Halon 1301 Fire

Suppression System used by the park was failing. The new fire alarm system was connected to the security system and the obsolete system removed. A wet pipe fire suppression system was installed in the visitor center. The system also provided protection to two porch areas. The existing fire alarm system was also replaced in the visitor center.

In November, the park completed repair of **tornado damaged facilities** based on PMIS 108424. A tornado that crossed the park in May 2003 caused extensive damage to vegetation, fencing, cemetery features, trails, and bridge abutments. The project entailed removal of downed and standing hazardous trees from 4,400 feet of boundary fence and 6,450 feet of trail; establishment of a 6,500 foot fire break; replacement of 3,613 feet of boundary fence and 3,500 feet of split rail fence; repair of a damaged cemetery and stone fence; removal of logs threatening bridge abutments; and the re-opening of equestrian/hiking trails. Park staff removed hazardous trees and made repairs to the Manley cemetery; removed hazardous trees from the entire Manley Uplands trail (2.2 miles), including the 3,000 feet of the trail that were completely blocked due to downed trees; moved trees from 3,500 feet of boundary fence, moved logs threatening the bridge; and rebuilt approximately 3,600 feet of split rail fence. The project also funded construction of a 4,000-foot-long and 50-foot-wide fire line. Over 225 loads of hazardous fuels were taken out of the park with a short haul truck. Standing dead trees were downed on an additional 50 foot strip of land interior to the fire line. A contractor worked for approximately 3 months to remove as much hazardous fuels as possible.

In December, twenty-three defective traffic signs were replaced based on PMIS project 113091. Signs replaced included four “Reduced Speed Ahead,” three “Speed Limit,” two directional, two boundary, five “Stop,” six “One-Way,” and one parking.

2007

The principal accomplishment of 2007 was completion of a **General Management Plan Amendment and Environmental Assessment/Assessment of Effect for the Civil War Museum and Additional Lands** relating to the park boundary expansion act of 2004. As noted in the document,

The 2003 General Management Plan/Environmental Impact Statement for Wilson’s Creek identified important resources associated with the Battle of Wilsons Creek that are not managed or protected by the National Park Service and recommended adjusting the national battlefields boundaries in number of areas to protect these critical resources and enhance opportunities for public enjoyment portion of the recommended lands were added to the national battlefield in 2004.

This General Management Plan Amendment/Environmental Assessment/Assessment of effect proposes management alternatives for two of the areas identified in the boundary assessment the Civil War Museum and its surrounding 20- acre site and 154-acre area that adjoins the national battlefields southwestern boundary. Two action alternatives are compared with the no-action alternative that describes the continuation of existing conditions.

- Alternative B - Relocate the Civil War Museum Collections into an Addition to the Wilsons Creek National Battlefield Visitor Center Preferred Alternative Under this alternative the existing Civil War Museum would be closed and the museum collections moved into an addition to the visitor center built for curatorial storage and exhibit space Most NPS administrative functions would remain in the visitor center
- Alternative C - Move the Civil War Museum Collections into Existing Administrative Space in the Visitor Center Under this alternative existing space in the visitor center

would be rehabilitated for curatorial and exhibit space for the museum collections. Most NPS administrative functions would then move into buildings previously used as residence and museum on the 20-acre site which would be rehabilitated for this purpose.

- Under both action alternatives the 154 acres adjacent to the southwestern boundary would be managed consistent with the management zoning on the adjacent lands. Limited visitor parking and pedestrian trails could be developed including the potential for link to the national battlefield. Sensitive cultural and natural resources in this area would receive high level of protection. Any construction or operational activities would be done in sustainable manner to minimize adverse impacts on natural and cultural resources.

The entire park was declared a Federal Disaster area following the **ice storm** that began on January 12, 2007. During the evening of January 12 ice quickly formed on trees and power lines. The park and approximately 75% of NPS employee's duty stationed at Wilson's Creek and Missouri State University lost power to their homes. By January 13, power was out to most park buildings and downed trees and tree limbs blocked access to roads, buildings, and trails. Ice and rain continued to fall on January 13 and 14 with total ice accumulations in excess of 1.5 inches. The park was closed January 13 due to hazardous trees and tree limbs. Three buildings in the park had no power for two weeks and critical systems were operated with generators. Park staff, supported by Fire Pro and maintenance staff from Buffalo National Riverways and Ozark Scenic Riverways worked to establish emergency routes to critical assets and clear hazardous trees and tree limbs from the visitor center and maintenance area. The visitor center re-opened on January 19.

Later, staff removed **hazardous trees and limbs** from 6 miles of road, and three short trails; and cleared emergency routes to an additional 10 miles of trail. The park 5-mile tour road, all tour road stops, and three short trails (Ray House, Ray Springhouse, and Bloody Hill) re-opened on February 5. Work continued for months to repair buildings and remove hazardous trees and limbs. Archeological compliance was required for a 1 acre disturbed archeological site at the Ray House resulting from the uprooting of trees that exposed the soil. Funding for some of the work was secured based on PMIS project 136056.

Overall approximately 1,800 hazardous trees were cut and removed and hazardous limbs were removed from approximately 750 trees in the following areas: 9 miles of trail, and 6 miles of roads; 28 acres of developed areas including the visitor center grounds, the Civil War Museum, Sweeny House, maintenance complex, Ray House, building # 6, and Tour Road Stop 5. Tree limbs and fallen trees were removed from boundary fences, and the fences themselves repaired. Approximately 30 stumps were ground and debris cleaned up from the Ray House yard and visitor center grounds. Approximately 30 cubic yards (5 dump truck loads) of brush was hauled to an off-site dump. Approximately 30,000 cubic yards of brush was burned on site, and an additional 180 cubic yards of brush was chipped on site. Trees were then replanted in some locations.

Five construction-related projects were completed during 2007. In August, cracks associated with the **tour road** were repaired based on PMIS project 25523. This project consisted of an asphalt road repair on one bridge approach and departure, a scrub seal on 6-miles of roads and 10 parking areas in the park, and re-striping all roads and parking areas. The improvements were made to extend the life of road and parking surfaces while continuing to provide safe roads for visitors. The tour road and parking areas were closed for approximately 2 weeks while the work was completed.

In October, the **Ray House porch and door** were repaired based on PMIS project 114104. Rotted wood on 6 original solid walnut porch support posts was addressed. The project entailed demolition of 25 linear feet of damaged porch railings and spindles, installation of in kind materials, sanding, and painting. The door repairs entailed the door frame, jam, threshold, and facing. In addition, the corner trim boards on five corners of the house was replaced, sanded, and painted.

Also in October, four **abandoned wells** were documented and filled based on PMIS project 118526 and in accordance with Missouri State Law 10 CSR 23-2.110, which stipulates that abandoned wells must be plugged for safety and to prevent contamination of water resources. The park first located the historic wells, each open hand-dug and stone-lined. They then photographically documented the condition of the wells while archeologists completed Section 106 compliance. Brush was then cleared around the wells to improve access to each site, and the wells were filled with sand, followed by a clay cap on the top 2 to 4 feet. The wells were each approximately 2.5 feet in diameter, and varied in depth from 10 feet to 25 feet.

In November, the concrete associated with the **visitor center parking area** was repacked. This work entailed refilling all of the joints on the parking area and islands where asphalt met the concrete curb. The maintenance parking area was similarly treated. The pavement joints and cracks needed to be filled to prevent water from freezing and thawing and causing damage to the pavement.

2008

In 2008, the park acquired **six parcels totaling 42.39 acres**. These tracts—01-112; 01-138; 01-139; 01-140; 01-141; and 01-142—were all located along the park's southwestern boundary. Easements were also secured on four other parcels located south of the park and Old Limey Road, as well as east of the park to the north and south of the Greene-Christian County line.

Five construction-related projects were completed within the park in 2008.

In March, the park **entrance road shoulder** was rehabilitated based on PMIS project 113995. The project entailed demolition of 720 square feet of the damaged shoulder, and replacement with bituminous concrete. Bermuda grass growing through the shoulder pavement was found to be the cause of the deterioration. The grass was treated with herbicide as part of an effort to eradicate it from the area and prevent similar problems from occurring in the future. The project was critical to prevent the road base from eroding in a location where asphalt is required because portions of the slope are too steep to maintain grass in a site where visitors often pull over to photograph the park entrance sign.

In September, **seven park trails and overlooks** were rehabilitated under PMIS project 102804. The project addressed resource and safety deficiencies over 2.5 miles of trails that extend through the battlefield and two overlooks. Many of the trails were impacted by the heavy equipment used to remove tornado-damaged trees and debris, but were also deteriorated due to years of visitor use. The efforts conducted on behalf of the project included repair of trail alignment, tread surfaces, signage, bridges, drainage, and retaining structures. Up to thirteen railroad ties and landscape timbers used as waterbars considered to be tripping hazards and of concern environmentally due to creosote content were replaced; while bridges and overlook stairs were sanded and painted. Repairs were made to trail drainage structures and fill was used for drainage control, while holes were filled, crushed stone was spread on the trails, and encroaching vegetation was removed. Bridge repair included replacement of decking boards and safety railings. Three bridges were rebuilt with recycled plastic. Five waysides exhibits were sanded and painted,

while one trail sign was replaced. Benches along the trail were also sanded and painted. The trails that were the focus of the project included the Southwest Trail, Jeff's Trail, Pulaski Trail, Guibor Trail, and East and West Overlook Trails.

In September, a **hazardous tree removal** project was completed based on PMIS project 118462. The effort entailed cutting and removing 5 acres of trees and brush up to 6 inches in diameter, and brush hogging 2.5 acres of woody thickets impeding motor vehicle sightlines near twenty-four entrance and exit points. In addition 100 hazardous trees were removed along the 5 mile tour road. This effort was in addition to the annual efforts made by park staff to clear obvious hazardous trees from roads and trails each year as a result of the previous year's ice storm. By the end of the effort only the nature trail remained closed.

Hazardous trees and tree limbs were removed from maintained assets in the following order: 1. Employee parking areas and access roads. 2. Visitor center and maintenance complex grounds. The first two priorities were necessary to provide for employee and visitor safety. 3. Tour road and all tour road stops. 4. Ray House Trail, Ray Springhouse Trail, and Bloody Hill Trail. 5. Picnic area and nature trail. Priority 3-5 are areas of primary historic value, receive the highest visitor use, and are used to accommodate school groups. 5. Wire Road and Ray Cornfield trails. 6. Southwest Trail and Manley Trail. 7. Gibson Mill and Jeff's Trail.

Also completed in September was a project to replace **picnic area benches and tables** based on PMIS 118500. As part of the effort, 33 wooden picnic tables and 7 benches were added to the picnic area, to replace 26 existing tables and 7 benches. The new picnic furniture was recycled plastic and handicap accessible. The existing picnic tables were over 12 years old and consist of metal frames with CCA treated wooden planks. The wooden picnic tables and benches were split, warped, and rotting. Several had already been removed because they were no longer safe. The CCA treated wood needed to be replaced as it was no longer allowed for use in playground areas and was not safe for use as an eating surface. The table frames were approximately 20 years old and warped and cracked due to water freezing inside the frame. In addition, they were not handicap accessible.

In November, the **electric furnace** was replaced in the former wastewater treatment plant (Building #14) based on PMIS project 79622.

2009

One of the most important accomplishments of 2009 was completion of the park's **Long Range Interpretive Plan** in June. The plan outlined recommendations for future interpretive services, facilities, and media. It recommended actions anticipated to occur over a seven to ten year period, and identified interpretive themes, described visitor experience goals, and recommended a wide variety of personal and non-personal interpretive services and outreach activities intended to communicate the park's purpose, significance, and themes. Plan highlights include:

Visitor Center

- Plan, design and fabricate new exhibits that combine the artifacts from the Civil War Museum with the current visitor center exhibits. Create one visitor flow pattern, one cohesive message and a unified visitor experience that provides a seamless museum exhibit experience. The exhibit plan must address current themes, remove ineffective messages, and upgrade the exhibits to meet National Park Service exhibit standards.

Education Program

- Hire a Park Ranger for Interpretation and Education Coordination.
- Limit the number of formal programs offered and provide self-service options for those schools that are not able to participate allowing the staff to have better control of the program and to provide quality programs.

Bloody Hill

- Improve the visitor experience at Bloody Hill by emphasizing its importance during the Battle of Wilson's Creek. New wayside exhibit panels, artillery placement, a shade structure, re-alignment of the trail network and new artwork will create more opportunities for visitors to engage in the resource.

Tour Road

- Establish a new first stop where the Short Farm was located to emphasize the lives of the residence more effectively. The first combat action between the federals and the southerners occurred near their house. Change Gibson's Mill tour stop to Plummer's Crossing. This is where the Union entered the Ray cornfield and provides more context for the tactics of the battle.

Terrell Creek Acquisition

- Create a Double Spring Day Use Area where the Wire Road crosses the creek so that visitors can view a place where both armies are known to have camped and rested. A modest picnic area and wayside exhibits could be placed here.

Special Events

- Plan for and participate in the 2011–2015 Civil War Sesquicentennial.
- Plan for and participate in 2016 National Park Service Centennial.

In addition, the park conducted six construction projects that impacted the cultural landscape.

In March, the visitor center and maintenance area **entrance gates** were replaced, while the maintenance parking area was repaired. These projects were completed based on PMIS project 119600. Work entailed demolition of deteriorated existing gates, posts, and signs. New gates were constructed with bolts and plates made of galvanized steel and wood members fashioned from treated Southern yellow pine. The gates were supported by concrete bases inset with 8x8 wood posts. The concrete around the posts was rounded so water would not collect around them. The posts extended for 4 feet above the grade of the concrete. The gate arms were made of 6X6 Southern yellow pine. All wood was held together by steel pins, steel bolts, steel rods, formed steel plates, screws, and washers. Also installed were National Park Service identity and hours signs on the front of the visitor center entrance gate, demolition and rehabilitation of a vehicle counter, installation of a solar panel system, electrical wiring, and lighting for the identity signs. Parking improvements at the maintenance area included a 5 inch bituminous concrete surface over the existing rock parking area and installation of 35 recycled rubber parking blocks. The parking lot is used by 25 to 35 maintenance and inventory and monitoring staff. These projects were intended to improve park security and the safety of the maintenance parking area.

Also completed in 2009 was the park's **Land Protection Plan**, which provides direction regarding the protection of cultural resources related to the park's mission.³

In April, the **tour road and parking area** were striped based on PMIS project 142134.

In September, four **roadside ditches** were rehabilitated under PMIS project 113274. This project was designed to prevent water flowing over roadways when the ditches failed. The ditches were located along Farm Road 194, McElhaney Road, the north side of the Ray House parking area, and the east side of the Ray House parking area. The project entailed removal of woody vegetation, clearing of sediment and rocks using a grader, and installation of a culvert in the McElhaney Road ditch for horse crossing. The ditches were subsequently sodded and seeded. A culvert was identified as needed for the ditch located east of the Ray House parking area to address problems with standing water.

Also in September, the **Ray House exterior was painted** based on PMIS project 128430. The project was designed to address serious exterior envelop deficiencies which caused deterioration of the original historic fabric on the historic Ray House (HS-5). The paint on all exterior siding surfaces of the Ray House exterior was found to be peeling and required scraping, and repainting.

The project entailed totally scraping the house of loose paint, sanding, priming with latex primer and painting with latex paint. Approximately 150 square feet of deteriorated wooden siding was removed and new siding was fabricated and installed with dates stamped on the backside. All siding was caulked with 25 year latex caulking. The area around the exterior chimney was re pointed with new mortar. The south facing door threshold was replaced with a custom fabricated oak threshold. Two windows required re-glazing. A new handicap ramp was built out of recycled plastic lumber and installed at rear entrance. Finally several loose chimney cap stones were re-mortared on the rear chimney and approximately 40 square feet of foundation was re-pointed.

Another project completed in September was the **repointing of the Ray springhouse** based on PMIS projects 133044 and 102961. The project entailed re-pointing mortar joints on 310 square feet of the structure, including the roof and principal facade. All loose mortar was scraped out and replaced with new mortar. The mortar mixture was consistent with the formula used during a rehabilitation project conducted in 1986 composed of Portland cement: ASTM C150, Type II, white non-staining; lime: ASTM C207, Type S; and sand: C144, natural or manufactured. The color was matched as nearly as possible to the existing. Missing stones were replaced with stone from a local quarry and matched to the original. The project resulted from a 2006 LCS update which noted that . . . “the mortar is crumbling, and a noticeable number of stones are missing from the rear of the structure, possibly the result of vandalism.”

In November, the **Manley Trail** was rehabilitated based on PMIS project 106211. The project was designed to address health and safety deficiencies on the 2.2 mile trail involving backfilling of holes to eliminate tripping hazards, removal of overhead limbs, and replacement of 62 water bars that constitute a tripping hazard. The project was needed following impacts to the trail resulting from heavy equipment used to remove tornado damaged trees and debris. The trail surface was found to be rutted throughout the length, contributing to the potential for hikers and horses to trip and fall. Horse riders typically avoid ruts by moving off trail and thus making their own new trail alignment, adding to the repair work that is needed. Encroaching vegetation on this trail is another safety risk to horse riders. The work entailed the

³ Wilson's Creek National Battlefield, *Land Protection Plan Wilson's Creek National Battlefield* (Republic, Missouri: National Park Service, July 2009).

spreading of aggregate on trail surfaces, installation of 12 new waterbars and repair of an additional 30 water bars on the steepest sections of the trail, and removal of overhead limbs on 4,000 feet of trail.

2010

Four construction projects were completed in 2010.

In January, the **picnic area retaining walls** were replaced along with 140 linear feet of deteriorated wood safety railing based on PMIS project 113986. The deteriorated 20-year-old, 6-foot-high creosote treated railroad tie retaining wall that provided a level base for a group picnic site and protected three additional picnic sites was replaced, while deteriorated wooden safety railing supports were replaced with galvanized railing and fencing. The ties were treated with creosote, a known carcinogen, so had to be removed and properly disposed. Safety railing supports need sanded and painted to prolong structure life.

In March, the **bike racks and parking blocks** or wheelstops associated with the tour road were replaced, while the bollards at the tour stops were stained based on PMIS project 113400. The project was conceived to address concerns regarding rotting bike racks and warped parking blocks. Five bike racks were replaced with recycled plastic racks, while 127 parking blocks were replaced with recycled rubber blocks. A total of 98 bollards were re-stained.

In April, 30 trees were planted west of the Ray House to implement the CLR recommendation to interpret a historic **orchard** on the property during the Civil War era. The planting featured three varieties—‘Gold Rush,’ ‘Enterprise,’ and ‘Jona Free.’

In November, the **McElhaney House and well house** were rehabilitated based on PMIS project 102961. The house is used currently used for law enforcement, resource management, and interpretive offices. This house and associated well house provide the only restroom and potable water supply for employees and volunteers inside the park.

The project was to address repair needs associated with the McElhaney House (Building #6). The project entailed repair of 40 linear feet foundation; replacement of 20 inadequate foundation piers to support the sagging first floor; fastening of building sills to the foundation; replaced a deteriorated rear stoop and stairs; removal and replacement of deteriorated shingles, felt, guttering, and downspouts; replacement of the existing propane furnace with a high efficiency furnace; replacement of all HVAC ducts with rigid insulated ducts; painting of the exterior of the house, front porch, and stairs; replacement of 40 square feet of deteriorated 3 inch lap siding; and various interior rehabilitation projects. At the same time, the septic tank and leach field were replaced, and four exterior doors were repaired while 3 new doors were installed.

The McElhaney well house deficiencies were documented by Robert J. Reiss in a Public Health Assessment dated May 13, 2004. As the only water supply for the McElhaney House kitchen and restroom, the building must be kept in good condition with appropriate sanitation measures in place. The building was found to have rotted siding and rodent damage. The insulation was found to be torn up or missing, and the roof deteriorated and leaky. The chlorinator was found to be leaking solution onto the floor, while the pressure tank was rusted and in danger of failing. Wiring and controls were found to be in need of replacement. Heat was provided with a plug-in type electric heater that was considered insufficient to protect the pressure tank from freezing, which would lead to a lack of flow of water within the McElhaney House. Work entailed removal of encroaching tree limbs, followed by demolition of the 63-square-foot building. Using the existing concrete slab, a new foundation was dug, forms were constructed, and a concrete foundation 8 inches thick x 24 inches deep poured for the 32.5 foot

perimeter. The new building was constructed of concrete block walls to a height of 8 feet. Rafters and a roofing system were then added, along with 36 inch x 84 inch double insulated steel doors, a new chlorinator, pressure tank, controls, wiring, install a permanent heater, and a 4 foot x 6 foot tall steel cabinet for supplies.

In December, **hazard tree and limb removal** was accomplished based on PMIS project 152050. The project entailed removal and disposal of approximately 100 hazardous trees up to 12" in diameter and tree limbs along 2,200 feet of the nature trail, 6 miles of road, and 7.6 acres of developed zones that surround 35 buildings, and 22 picnic sites. These efforts were part of the ongoing work to address damage caused by the 2008 ice storm.

2011

In March, the American Battlefield Protection Program (ABPP) of the National Park Service prepared an **Update to the Civil War Sites Advisory Commission Report** that addressed battlefields located within the state of Missouri, including Wilson's Creek. Park Historian Connie Langum was the battlefield surveyor for the project.⁴ The update was prepared as a result of the Civil War Battlefield Protection Act of 2002 that directed the Secretary of the Interior, through the National Park Service, to update the original Civil War Sites Advisory Commission report published in 1993. Congress obligated funding for the effort in 2005 and 2007.

The report notes that "The National Park Service owns about 1,970 acres at Wilson's Creek, but other portions of the battlefield remain unprotected outside of the park's boundaries."⁵ The report also indicates that

Private landowners have also begun to protect battlefield land. At Wilson's Creek, a private family has voluntarily placed conservation easements on 172 acres of historic land outside of the National Battlefield's boundary. A local land trust holds the easement in perpetuity and monitors the condition of the properties. The easements, executed in 2003 and 2006, are the first ever placed on Civil War battlefield land in Missouri. Many other states provide tax credits for private property owners who donate conservation easements that will permanently protect historic land. Further exploration of this powerful preservation tool is appropriate in Missouri.⁶

While Wilson's Creek was identified in the original 1993 study as a priority III battlefield requiring additional protection. The 2011 report provides updated ratings for Missouri battlefields, as well as revised study areas and core areas, and a potential National Register eligibility boundary based on new survey methodologies devised by the American Battlefield Protection Program, including the incorporation of U.S. Army KOCOA principles. A manual prepared by ABPP in 2007 explains the survey methods used in the update. The 1993 report was based on methodologies that were in the process of being developed, and preceded completion of the National Register Bulletin: *Guidelines for Identifying, Evaluating, and Registering Historic Battlefields* prepared by Patrick Andrus of the National Park Service.

The 2011 study suggests that Wilson's Creek, one of seven Missouri battlefields already listed in the National Register of Historic Places, should be considered for a National Register nomination boundary

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4. American Battlefield Protection Program, National Park Service, *Update to the Civil War Sites Advisory Commission Report on the Nation's Civil War Battlefields* (Washington, D.C.: U.S. Department of the Interior, March 2011), 3.
 5. ABPP, Report, 5.
 6. ABPP, Report, 6.

expansion to recognize the 3,300 acres of the delineated battlefield that fall outside of the National Park unit and current documentation.⁷ The report identified the Wilson's Creek study area as extending over 5,109.74 acres, and the core area over 1,021.26 acres. The potential National Register boundary is indicated as coincidental with the battlefield study area. Currently, 1,749.91 acres of the battlefield are listed in the National Register of Historic Places.⁸ The study suggests that a total of 2,968,48 unprotected, intact acres remain within the Wilson's Creek battlefield study area.⁹

The report noted that

At Wilson's Creek, residential development has begun to alter the battlefield's nationally significant landscape. Within the last ten years, dense subdivisions have been built within a mile of the northwest corner of the battlefield, and large lot estate homes have been built on the eastern portion of the battlefield just beyond the boundary of Wilson's Creek National Battlefield. Unless steps are taken by local governments to direct development away from the battlefield, or public-private partnerships can be forged to protect historic land outside of the national battlefield, it is entirely plausible that the park will be surrounded by development within two or three decades.¹⁰

The study also recognized the value of the Wilson's Creek friends group, active since 1950.¹¹

Concerns remained regarding a large housing development slated for land located west of the park boundary. In addition, a large new high school was built north of the park's northern boundary, increasing development pressure and traffic within the area. State Highway ZZ, also known as Wilson's Creek Boulevard was expanded to accommodate the larger volume of traffic generated by the high school.

Also announced in 2011 was the availability of a **Sesquicentennial App** developed by historical agencies around the county to make history relevant and engaging. The effort followed the Civil War Trust's development of Battle Apps, which are GPS-enabled tours of battlefields.

In Missouri, the Sesquicentennial App was developed by local groups and agencies, including Wilson's Creek National Battlefield and Missouri's Springfield-Greene County Library District. The effort followed the library's unveiling in 2009 of the "Community & Conflict" digitization project, which explored the Civil War's impact on soldiers and civilians in Missouri, Arkansas, Kansas, and Oklahoma. The project was made possible through a Library Services and Technology Act Digital Imaging Grant funded by the Institute of Museum and Library Services coordinated by the Missouri State Library. Project partners sought to expand understanding of the Civil War in the Trans-Mississippi Theater by providing access to historical collections and promoting scholarship. One outcome was the interactive virtual museum for the Trans-Mississippi Theater funded by a Challenge Cost Share Grant from the National Park Service and a donation from the Wilson's Creek National Battlefield Foundation. The virtual museum and digital archive was based on the digitizing of Wilson's Creek National Battlefield's collections, which is one of the largest of related artifacts in the world. The digital gallery addressed such topics as guerilla warfare, medicine, naval warfare, the role of women, and the experiences of Native American, African American, and German American soldiers.

7. ABPP, Report, 15.

8. ABPP, Report, 21.

9. ABPP, Report, 24-25.

10. ABPP, Report, 19-20.

11. ABPP, Report, 28.

Also during 2011, Park Historian Connie Langum conducted a **personal interview with Dorothy McElhaney** and her daughter Glenna. The three toured the Ray House together. Mrs. McElhaney was born in 1910, and had personal memories of the Ray House and conveyed stories told to her by her parents about the Battle of Wilson's Creek.

In July, a **Natural Resource Condition Assessment** report was completed for the park.

The park celebrated the **Sesquicentennial of the Battle of Wilson's Creek** in August.

In November, the park completed **emergency repairs associated with the tour road** based on PMIS project 119329. The project was developed in response to a field review and inspection conducted in May 2005 by Federal Highways Geotechnical that identified a concern regarding rock overhanging a section of the tour road that was eroding and threatening to fall or shift toward the road. This section of the tour road was built on an existing railroad grade built in the 1890s. The sections identified for removal were approximately 14 feet high, 10 feet wide, and 400 feet long. In addition to rock removal, the project entailed clearing of several acres of small brush along the top of the rock cut. The work entailed the excavation and removal of approximately 650 cubic yards of rock and soil within the targeted area to prevent rock from falling on the tour road; construction of a 4 foot wide ditch graded for proper drainage; backfilling, grading, and sodding the entire length of work between the tour road edge of pavement and the vertical face of the road cut.

In a related effort, the asphalt tour road was found to have settled 6 to 8 inches on both ends of a **box culvert** in close proximity to the rock bluff. The park's plan included removal of a 20-foot section of asphalt on the approaches to the box culvert, the addition of 4 inches of base rock, replacement of the asphalt, removal of wooden forms causing spalling on the box culvert, patching cracks in the concrete and box culvert, and road repair. The repairs required closure of the tour road.

In September, **bracing was installed in the McElhaney barn** to prevent the structure from collapsing based on PMIS project 142061. The project entailed installation of eight lateral braces to stop exterior supports from moving outward. The braces featured 3/4 inch threaded rod with turn buckle connections on exterior columns. Four were placed in the first floor and four in the second floor. At the same time, three deteriorated wooden window frames and glass were replaced with new material of the same type and dimension to prevent weather infiltration, and the building exterior was repainted.

2012

Several construction-related projects were completed within the park in 2012 that relate to the cultural landscape.

In April, a **fence** was installed at the maintenance compound to increase security measures based on PMIS project 41749. The fence was approximately 1,868 linear feet long and 6 feet high and constructed of commercial grade plycoated fencing with poles and three gates.

In May, wood elements associated with the **Wire Road bridge** were replaced based on PMIS project 102769. The stringers, decking, and steel substructure on this bridge had been identified for replacement during the last condition inspection and the last three Federal Highways bridge inspections. The life expectancy of the wooden decking and stringers is 5 years. The decking and stringers on the bridge were assessed as unsafe due to deterioration caused by debris and water getting trapped in the structure during heavy rain storms. Horses and visitors regularly use the bridge to tour the battlefield. The project entailed removal of the decking and stringers, priming and painting the steel substructure, and replacement of 40 wooden stringers, 96 deck timbers, and 33 deck runners.

In May, the **Sweeny Museum property buildings** were reroofed and the HVAC system updated based on PMIS project 133614. The project entailed removal and disposal of existing asphalt shingles on three buildings; the installation of new 30 lb. roofing felt and new asphalt shingles; a new drip edge on all three buildings; replacement of six exterior door locks and dead bolts; removal and disposal of three propane furnaces and air conditioning units; and installation of three new propane furnaces and air conditioning units. The “Sweeney” residence, which measures 8,000 square feet, was moved to its current location in 1964. In 1988 Tom and Karen Sweeney acquired the property and replaced the asphalt roof, 3 propane furnaces, and 3 air conditioners. The property includes an outbuilding. The Civil War Museum was constructed in 1991.

In August, new **wayside exhibits were installed on Bloody Hill** based on PMIS project 65086. Bloody Hill, as its name implies, was the location of the main part of the Battle of Wilson’s Creek. Approximately 85 percent of the more than 2,500 battle casualties occurred at Bloody Hill. Visitors access the site of the fighting along a foot trail that extends between the tour road stop parking area and the Lyon Marker. Until this project was implemented, interpretation was accomplished using a printed trail guide and numbered stakes.

New waysides were recommended in the Long-Range Interpretive Plan published in 2009. A total of 22 waysides were installed as follows:

- Trailhead Marker/Map*
- Confederate Line of Battle/19th Century Tactics
- General N. Bart Pierce
- Missouri State Guard Attack/Sterling Price
- Reid’s Battery
- Col. Richard Weightman
- Nathaniel Lyon and Lyon’s Death*
- DuBois’ Battery*
- Granger’s Counter attack
- Totten’s Battery/Artillery Ammunition/Battery organization*
- The Sinkhole and Disposition of the Dead*
- Solkalski’s Section*
- Greer’s Cavalry Attack
- 1st Iowa Greyhounds/Center of Federal Line
- Endangered Species Habitat*
- 1st and 2nd Kansas
- Attack by Arkansas Troops (3rd Ark.-Gratiot_
- Landscape Restoration
- Sigel’s Bombardment
- The Battle’s Toll/Medals of Honor
- Sturgis Takes Command
- The Confederate High Water Mark

2013

In April, new **Vegetation Classification and Mapping of Wilson’s Creek National Battlefield** was published for the park.

The *Heartland Invasive Plant Management Plan and Environmental Assessment* was also completed which indicates the protocols used by the park to control invasive plant species.

Several construction projects were completed in 2013.

In May, **bridges** were repaired based on PMIS project 152036. This project entailed removal and disposal of soil and debris at bridges #2 and # 4; provision of additional rip rap, replacement of broken and deformed safety cables, and adjustment of a stringer bracket on the Wire Road bridge; and repair of erosion at the ends of the north wing walls on bridge # 4. Deficiencies were documented in a Federal Highways bridge inspection in 2006. Flooding in March 2008, resulted in a Federal Disaster Area Declaration (FEMA 1749-DR) for Greene and Christian Counties, and the battlefield itself. Impacts to the park included debris that became lodged in bridge structures.

The Tour Road bridge was repaired through removal of debris; repair of erosion and removal of asphalt on the four corners; and relocation of a sign that had been mounted on the bridge to a pole in the ground. Vegetation was cut back approximately 10 feet from the bridge.

For the Wire Road, all of the cables were either replaced or fixed, including the installation of new eyes. The stringer was replaced as were missing rivets. Debris was removed from bridge, and vegetation was cut back approximately 10 feet.

In August, the **windows in the McElhaney barn were replaced** based on PMIS project 152122. These windows included three failing wooden windows. Additionally, five aluminum windows were replaced in the maintenance shop (Building # 4).

In December, **historic structure repairs** were completed based on PMIS project 161364. Work entailed deep repointing of 75 square feet of the Ray House foundation using a soft mortar mixture; removal, disposal, and replacement of the Ray House roof, composed of approximately 1,900 square feet of rough cut, 18 inch, fire treated, cedar shakes; installation of zinc strips every fifth row to prevent algae growth; removal of lichens from the limestone chimney of the Ray House; improvement of the drainage around the Ray springhouse by providing an additional 2 yards of fill, grading, and seeding; power washing and painting of the exterior of McElhaney barn and associated replacement of 300 linear feet of furring strips and paint.

2014

In February, the park completed an **Environmental Assessment for Resource Preservation and Visitor Interpretation of Bloody Hill**. The purpose and need of the Environmental Assessment was to identify solutions, define outcomes, and find ways to protect sensitive resources while also enhancing interpretation for visitors to Bloody Hill. Of the 200-acre landform, 50 are designated a resource preservation zone to address the sensitivity of natural resources. Another 100 acres are designated as a battlefield landscape enhancement zone where the general historic character of the battlefield is retained and enhanced; while the final 50 acres fall within an interpretive focus zone designed to accommodate interpretive programs, such as demonstrations, guided tours, and special events.

The goals for the interpretive enhancement project were to protect threatened species by installing a boardwalk, enhance interpretation by adding new wayside exhibits and placing cannon, and improve the amenities at the site with construction of a shade shelter. Consideration was also paid to rendering the trail universally accessible, or alternately establishing a new accessible trail.

In April, the park completed a **Vegetation Management Implementation Plan**. Twelve vegetation management treatments were outlined based on the recommendations provided in the 2004 CLR.

Several construction projects were completed in 2014.

In March, **traffic signs** were replaced in the vicinity of the visitor center and along the tour road, while repairs made to the visitor center based on PMIS project 161393. Building repairs entailed routing and sealing of 200 linear feet of cracks in the exterior of a concrete building wall and repair of spalling.

In addition to traffic signs, **new park entrance/identity signage** was constructed. This included two 14 by 64 inch visitor center entrance signs and two 214 by 64 inch park identity signs made of routed and painted western red cedar.

In July, projects involving the **cleaning of grave markers, installation of gutters on the Ray House, and repointing of the Ray springhouse** were completed based on PMIS project 191946.

At the Ray springhouse, the efforts entailed removal of loose mortar with hand tools, re-pointing of mortar using a historic lime mortar mix on the front exposure of the springhouse; re-pointing additional mortar using a historic lime mortar mix on the top exposure of the Ray springhouse.

The Edgar Cemetery was the focus of a grave marker cleaning project where lichens were removed from masonry features using D2 Biological Solution. Natural or man-made fiber brushes will be used and spot tests will be conducted on various stone species prior to the full scale work. The park owns the Edgar family cemetery.

At the Ray House, approximately 65 linear feet of guttering and two downspouts were installed in the rear of the Ray House to help alleviate a persistent water damage issue. Midwest Region Historical Architect Al O'Bright recommended guttering on this portion of the house as a solution to water damage issues that have occurred since the building was rehabilitated in 1983. O'Bright was the architect involved in the rehabilitation in 1986 and said water drainage was an issue even then. The guttering was 5 inch half round galvanized steel with 3 inch round downspouts. It was not expected to be a visual intrusion.

In September, **six buildings and four bridges were repainted** based on PMIS project 152058. The buildings included the inventory and monitoring offices (Building #20), fire cache (Building #21), hazardous materials (Building #22), powder storage (Building #25), saw storage (Building #26), and tool storage (Building #27). Bridge work was conducted on the Skeggs bridge railings, and three Gibson Mill Trail bridges.

In October, **siding, trim, and doors** were repaired in association with many park buildings based on PMIS project 152129. The five buildings that were the focus of this project included the visitor center (Building #15A), powder storage (Building #25), saw storage (Building #26), tool storage (Building #27), inventory and monitoring equipment storage (Building #28). These non-historic buildings had suffered exterior damage due to weathering. They provide critical visitor services, storage for equipment and tools critical to the visitor services, resource management, and maintenance functions.

2015

In 2015, the **Civil War Trust acquired a 20-acre parcel** with the intention of transferring it to the federal government for inclusion within the park (Tract 01-135).

Three construction-related projects were completed within the park during 2015.

In July, the **sidewalks** were chip sealed based on PMIS project 161388. Cracks in the asphalt were filled, and all sidewalks associated with the eight parking areas along the tour road were sealed with brown rock

1 chips to match the existing pavement surface. Approximately 75 parking blocks were removed and
2 replaced at the completion of the project.

3 In October, the **split rail fences** at the visitor center were replaced based on PMIS project 161558. These
4 fences define the entrance to the park and are the first thing the visitor sees when entering the park. There
5 are a total of 2,400 oak split rails used for the fencing around the perimeter of the visitor center area
6 requiring replacement. They were last replaced in 2006. The rails were stacked instead of nailed together
7 to facilitate repairs after wind events. A total of 1,078 linear feet of deteriorated rail fencing was replaced.
8 The removed rails were reutilized as firewood. The new fencing was built to a height of 4 rails (3.5 feet);
9 some nails were used in its construction.

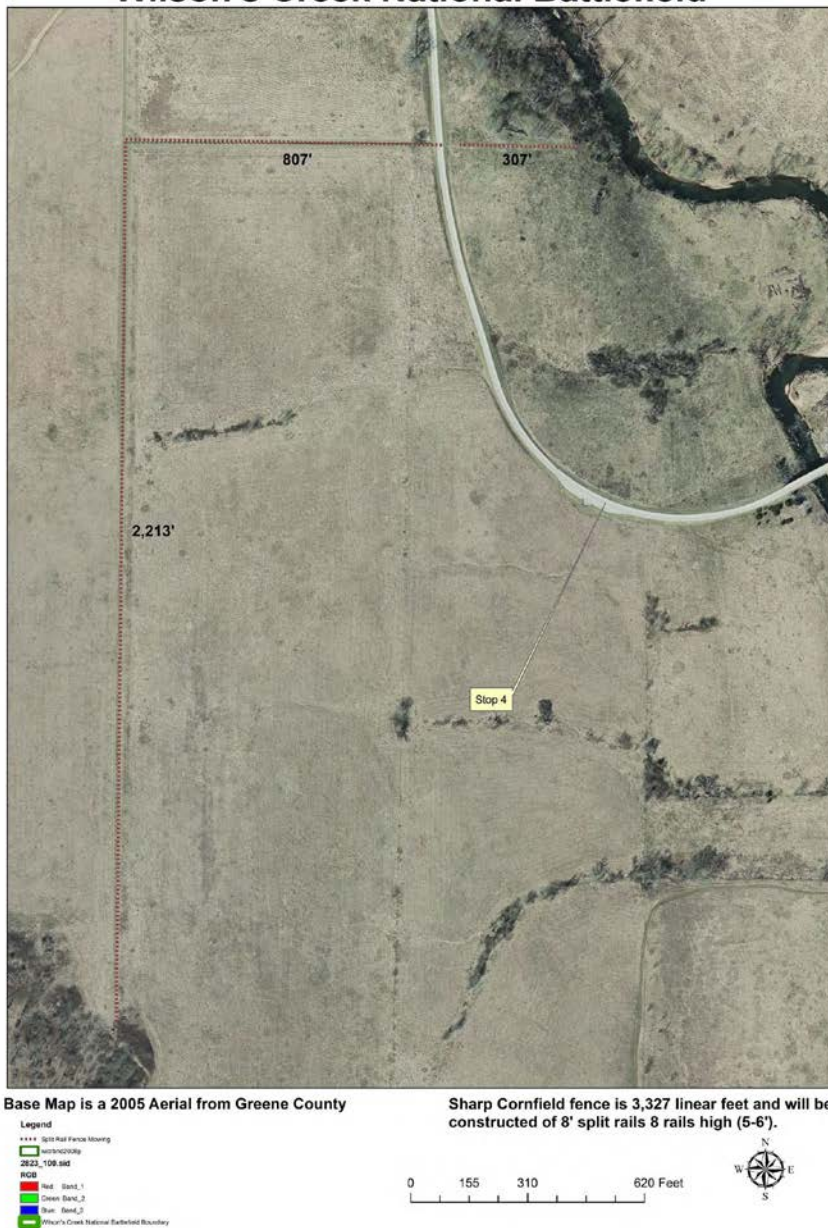
10 In July, **cracks in the road** were repaired based on PMIS project 171583. The cracks were repaired along
11 the 6 miles of the park's asphalt road and the asphalt parking areas. The repairs entailed the application of
12 hot applied rubberized asphalt; broom sealing of small cracks; and re-striping with 2 coats of latex traffic
13 paint. The project was needed to maintain the asset until Federal Highways was able to bring it into their
14 pavement preservation program in 2017.

15 2016

16 One of the most important accomplishments of 2016 was completion of the park **Foundation Document**
17 in August.

18 In May, **water bars and ruts were repaired on the Southwest Trail**, while failing **split rail fencing was**
19 **replaced around the Sharp cornfield** based on PMIS project 161557. Along the Southwest Trail, 22
20 water bars were rebuilt, and hardened to withstand horse traffic, with the depth and angle of each water
21 bar adjusted to direct drainage off the trail. Each water bar is approximately 20-25 feet long by 24 inches
22 wide and 8-10 inches deep. The water bars required on these two steep sections of trail channel water off
23 trail and prevent erosion. These water bars have been compromised by the continuous pounding of shoed
24 horses and heavy rainfall.

Replace Sharp Cornfield Fence Wilson's Creek National Battlefield



Map illustrating the fencing replaced at the Sharp cornfield. (Source: WICR)

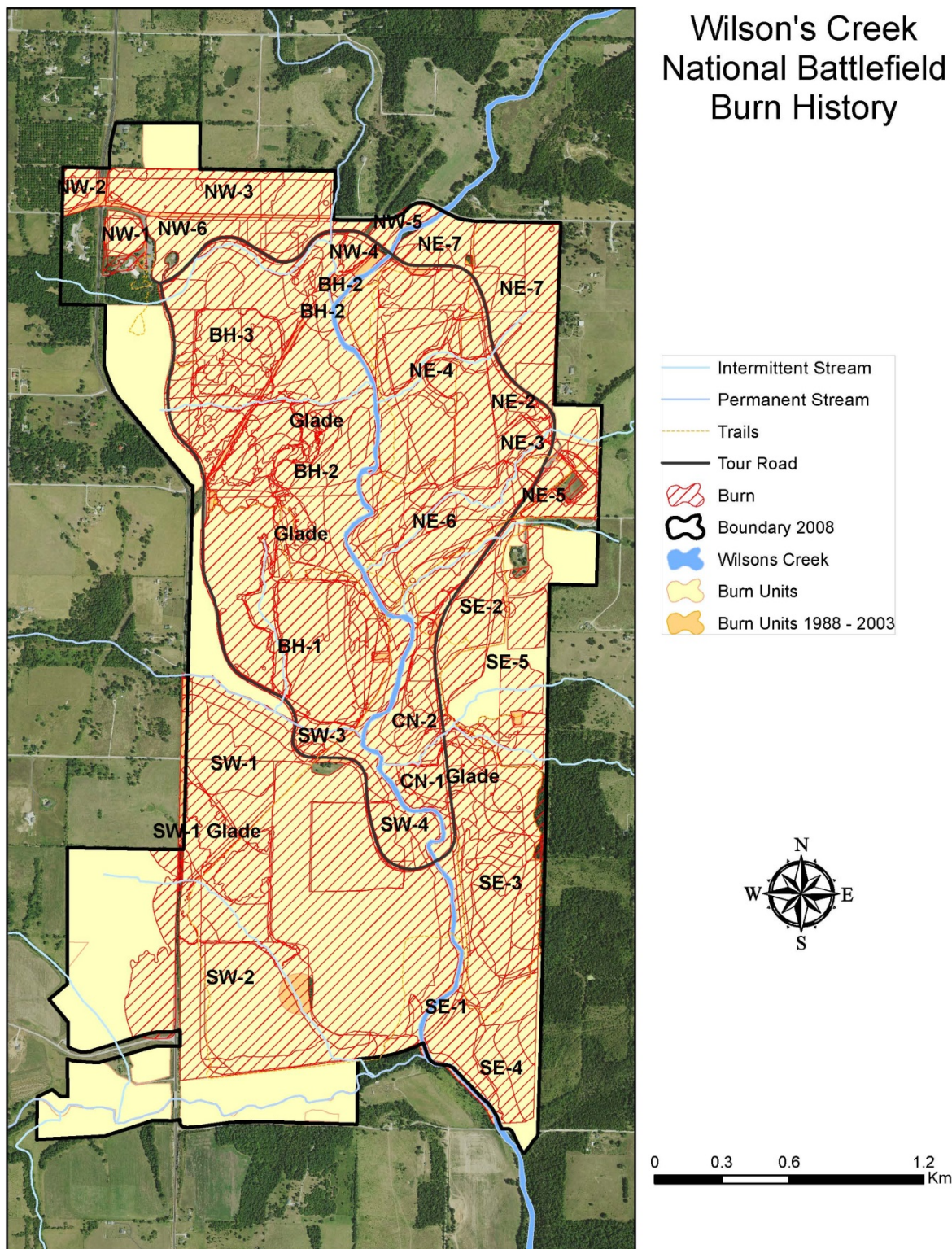
In addition, ruts were filled along approximately 5,000 linear feet of trail. The fill was a mixture of clay and crushed rock. Small water bars were also constructed to divert water off trail. The trail ruts have been caused by shoed horses traveling across what was once a grass covered trail and heavy rainfall exploiting this lack of cover, further eroding the soil.

At the **Sharp Cornfield**, approximately 3,306 linear feet of oak split rail fencing was demolished and replaced. The new rails were installed using historic fence construction methods (i.e. not nailed) so repairs can be easily made after storm events. The fence is part of the cultural landscape plan and is critical to delineate the historic field and provides visitors with a frame of reference. The split rails were last installed in 2005, rails have a maximum life span of ten years.

1 In June, **new exhibits were added at the visitor center** based on PMIS project 174798. This project
2 replaced inadequate museum exhibit cases, enhanced security, and improved accessibility within the
3 existing main gallery of the visitor center. The visitor center exhibits were outdated and provided minimal
4 opportunity for engaging visitors. This project developed a cohesive interpretive story using revised
5 interpretive panels based upon current research and will offer multiple topical perspectives through the
6 display of select artifacts and primary sources from the Civil War Collection. This project incorporated
7 visitor experience values and preservation and protection goals increasing opportunities for visitors to
8 make personal connections to events of the Civil War that occurred west of the Mississippi.

9 In September, the **Edwards Cabin** was reroofed, as were storage buildings, based on PMIS project
10 152166. In addition to the Edwards Cabin, roofs were replaced in association with Building #23, which is
11 used for storing materials for recycling.

Additional Graphic Images



Map showing the expansion of the use of prescribed fire since 2003 as a means for managing vegetation.



Chapter Three Existing Conditions Documentation

1 Introduction

2 Although the 1993 CLR contains a wealth of historic photographs of the property, the park has collected
3 several additional images not included in the earlier report. As these are of interest in understanding the
4 character of the property during the Cone period, they are reproduced herein for reference (Figure 7 through
5 Figure 22).

6 Park Expansion

7 In 2004, the park was indicated as including 1,749.91 acre of battlefield land, approximately 22 acres of which
8 were included in non-federal road rights-of-way. Since then the park has grown by more than 280 acres to
9 2029 acres. Privately- and publicly-held non-federal parcels within the boundary associated with the park
10 total 292.90 acres. An additional 13.97 acres have been acquired outside of the park boundary that will require
11 an additional boundary expansion before they can be transferred to the federal government. Conservation
12 easements totaling 172 acres were secured on battlefield land between 2004 and 2006. As of 2017, an
13 additional 40 acres are in the process of being placed in conservation easement for protection as part of the
14 setting for the park.

15 Boundary Adjustment Act

In 2004, Congress enacted Public Law 108-394, the Wilson’s Creek National Battlefield Boundary Adjustment Act of 2004. Specifically, the Act revised the boundaries of the park to include “lands and interests therein consisting of six parcels totaling 615 acres.” Lands associated with parcels specified in the Act could be acquired by the Department of the Interior by donation, from willing sellers with donated or appropriated funds, or by exchange. Several hundred acres have since been acquired based on this legislation. A 2007 GMP Amendment indicated that the 19.84 General Sweeney’s Museum parcel to the north was acquired in 2005 and three parcels totaling 157.03 acres adjoining the park boundary to the southwest were acquired in 2006.

General Sweeney’s Museum

In 2004, General Sweeney’s Museum was a privately-run enterprise located along the park’s northern boundary on a property that also served as a residence. The museum housed an outstanding collection of Civil War artifacts and memorabilia developed by Dr. Tom Sweeney, descended from Union Gen. T.W. Sweeney, who fought in the Battle of Wilson’s Creek. In 2003, the park’s General Management Plan identified acquisition of the museum and the associated parcel that it occupied as a park goal. As noted in the 2007 GMP amendment,

This 20-acre site, which is north of the original national battlefield boundary, was included in the national battlefield to enhance the ability of the national battlefield to fulfill its mission to preserve and commemorate the Battle of Wilson’s Creek. The primary goal was to acquire, preserve, and interpret the museum collections. This collection was determined to be one of the finest private Civil War collections in the United States. In addition to the collections, the site consists of the Civil War Museum building and other buildings. Portions of the Union columns marched across these lands on their way to attack the Confederate forces camped along Wilson’s Creek.¹

The 19.84-acre parcel was acquired for inclusion in the park in 2005.

Southwest Addition

The park acquired a 145.28-acre parcel that included land between the southern boundary and Old Limey Road and additional land to the west of Highway ZZ in 2006 (Tract 01-126). Two additional parcels—Tracts 01-127 and 01-128—were acquired west of Highway ZZ near the park’s southwestern corner. These parcels totaled 11.75 acres. Altogether, the parcels totaled 157.03 acres. The land was acquired by the Wilson’s Creek Battlefield Foundation for donation to the park. The property contains both cultural and natural resources associated with the Battle of Wilson’s Creek Confederate troops passed through this area before commencing their decisive flanking attack on the Union position on Bloody Hill.

It is described as containing cludes approximately 135 acres of fescue hayfields, two buildings and five building foundations, two cold water springs, a stream and riparian areas, and one limestone glade. Aquatic surveys have been conducted in the stream and to date no federal listed species have been found. The glade is approximately 5 acres in size and is in a degraded condition. The 2007 GMP amendment noted that

Preservation and interpretation of this area would enhance visitor understanding of the role that transportation played in the Battle of Wilson’s Creek and the impact of the battle on the lives of civilians. The primary goal was to preserve and interpret the Wire and York Roads, Guinn farm site, and Double Spring.²

1. GMP amendment, 3-4.
2. GMP amendment, 4.

The 2009 Long-Range Interpretive Plan suggested that the area be used to create a Day-use Area where the Wire Road crosses the creek to illustrate to visitors where both armies are known to have camped and rested. It recommended that a modest picnic area and waysides exhibits be placed on the property.

Acquisition Plan

Park boundary expansions are required to be followed by preparation of a Land Acquisition Plan. The park's land acquisition plan indicates the parcels that are of interest for inclusion in the park. Land can only be acquired from willing sellers. Although the park has funds available for additional land acquisition, there have been no willing sellers.

Southeast Addition

In 2008, the park acquired six parcels totaling 42.39 acres. These tracts—01-112; 01-138; 01-139; 01-140; 01-141; and 01-142—were all located along the park's southwestern boundary. Easements were also secured on four other parcels located south of the park and Old Limey Road, as well as east of the park that edge the Greene-Christian County line to the north and south.

In 2015, the Civil War Trust acquired a 20-acre parcel, which is in the process of being transferred to the federal government for inclusion within the park.

As of 2016, another 40-acre tract is in the process of being acquired by the Civil War Trust and will be donated to the park in the future. The parcel is located outside of the legislated boundary. Another Boundary Adjustment will be required before this land can be added to the park.

Easements have also been acquired for additional land located southeast of the park.

Long-Range Interpretive Plan

In 2009, the park completed a Long-Range Interpretive Plan that addressed interpretation grounded in the 2003 General Management Plan and reflecting the proposed treatment of the cultural landscape indicated in the CLR. Several themes were identified in the plan that serve as the foundation for all park interpretive media and programs. They are as follows:

- Because Missouri was a western border state, social, economic, ethnic, and political differences fueled animosities between groups, ultimately leading to civil war.
- The strategic importance of Missouri and the personalities, decisions, and motivations of political and military leaders greatly influenced the military campaign and battle.
- Many interrelated factors leadership tactics weaponry landscape and terrain features and the use of volunteer forces contributed to the outcome of the battle and resulted in an unusually hard-fought and bloody military engagement.
- While the Unions battlefield defeat the death of General Lyon and the potential loss of southwest Missouri by Federal troops forced the North to reassess its commitment to the war in the Trans Mississippi the victory at Wilsons Creek gave hope and confidence to the South The residents along Wilsons Creek found themselves engulfed in the violence of battle and subjected to guerilla warfare and severe military policies that they resented long after the war ended.

- The preservation and commemoration of the battlefield reflects the desire of people to remember and honor the dedication to duty patriotism and personal sacrifices of our ancestors.³

Changes by Landscape Characteristic

NATURAL FEATURES AND SYSTEMS

According to William Garrett Piston, the correct term for the water course is Wilson Creek. The name was misrepresented by soldiers associated with the battle.⁴

Improved Water Quality, Wilson Creek. *[information to be added]*

Springs. The water table throughout the region, first noted in the 1980s as declining sharply, has continued to drop since 2004. The lowering of the water table continues to affect the flow of local springs. Six unnamed springs were indicated as present within the park in 2004. Since 2004, land added to the southeast of the park includes the so-called Double Spring, which was used by both Union and Confederate forces as an encampment site. Further investigation is needed to suggest the degree of change that has occurred in association with park springs between 2004 and 2017.



Site of rockwork 2016. (Source: Liz Sargent)

Limestone ledge along the tour road. Emergency repair work was conducted along the tour road in 2011 to remove an overhanging section of rock located along the former rail line that was beginning to fail. A section 14 feet high, 401 feet long, and 10 feet wide was removed based on an evaluation by the Federal Highways Geotechnical department. A culvert associated with the road near the rock removal area was replaced following identification of a problem during the geotechnical project.

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3. National Park Service, *Wilson's Creek National Battlefield General Management Plan Amendment/Environmental Assessment/Assessment of Effect for the Civil War Museum and Addition Lands* (July 2007), 7.
 4. Civil War Trust, "The Battle of Wilson's Creek and the Struggle for Missouri," available at <http://www.civilwar.org/battlefields/wilsons creek/wilsons-creek-history-articles/wilsons creek piston.html> (accessed January 18, 2017).

RESPONSES TO NATURAL RESOURCES

Abandoned residential wells. Four abandoned wells, one of which was noted in the 2004 CLR as located along the park's southern boundary, have been filled by the park to protect visitors and staff from safety concerns associated with the wells. The wells were filled in 2007.

Ditches and gutters. Clearing of silted and vegetated ditches occurred in 2009 in association with McElhaney Road, Farm Road 194, and the parking area associated with the Ray House.

CIRCULATION

Missouri Highway ZZ. State Highway ZZ has been improved to accommodate increased traffic associated with construction of Republic High School to the north of the park at the intersection of the highway with W. Republic Road. *[information about how the road was improved to be added]*



Tour road 2016, c. 2004. (Source: Liz Sargent)

Tour Road and Tour Stops. In 2015, the formerly highly reflective road surface of the tour road was repaved with an asphalt mix that contained 50 percent granite chips, resulting in a less visually intrusive feature in the historic landscape.

Wire Road. In 2005, a washed out section of the Wire Road was repaired at the Shuyler Creek low water crossing, while ruts were filled.

Trails. Trails were heavily impacted by tree removal operations that followed an ice storm in 2007. In 2008, repairs were made to trail drainage structures, bridges, and trail surfaces, as well as vegetation removal along the Southwest Trail, Jeff's Trail, Pulaski Trail, Guibor Trail, and East and West Overlook Trails. Later, the Nature Trail was also repaired.

A complete trail condition assessment was prepared in 2012 that illustrated the condition of each trail, and identified segments where erosion and other problems of concern were noted.⁵

5. Logan Park, *Assessment of Equestrian Recreation at Wilson's Creek National Battlefield* (Carbondale, IL: Southern Illinois University, n.d. 2012?).



Bloody Hill Trail 2016, c. 2004. (Source: Liz Sargent)

Bloody Hill Trail. The Bloody Hill Trail was redesigned to incorporate new interpretive exhibits of waysides and cannon, a contemplative node near the tour road parking area, and to diminish the impact of visitors on the glade habitat. These improvements were completed in 2012.

Manley Spur Trail. The Manley Spur Trail, indicated on a park unigrid during the period in which the CLR was prepared, has been closed and is no longer in use within the park.

Ray Cornfield Trail. In 2006, the Ray Cornfield Trail was repaired through the filling of ruts, installing water bars, and removing encroaching vegetation. Portions of this trail have been assessed as subject to repeated erosion. A goal of the park is to reroute problematic segments of this trail.

Manley Trail is the park's most popular equestrian trail. It provides access to two horse parking lots, the Wire Road, Manley Cemetery and farmstead site, and allows equestrian users to make a 5-mile loop and return to their horse trailers. In 2009, the trail was rehabilitated to fill ruts, spread aggregate, remove encroaching vegetation, and replace water bars. Portions of this trail have been assessed as subject to repeated erosion. A goal of the park is to reroute problematic segments of this trail.

The **Southwest Trail** is a popular horse trail that provides access to the Wire Road and the Sharp Cornfield. It allows equestrian users to make a 5-mile loop and return to their horse trailers. The Southwest Trail forms a portion of a large trail loop used by approximately 9,000 hikers and horse riders each year to experience a Missouri State Guard and Confederate Civil War campsite and the path of a bold Union artillery advance within the park. The Southwest Trail was heavily impacted by equipment that was necessary to remove tornado damaged trees and debris resulting from the 2007. Problems with the trail were corrected in 2009. The trail traverses two very steep slopes in order to utilize an old railroad bed as the southern extension of the trail system. A portion of this trail is repeatedly subject to erosion. The park has identified the rerouting of the problematic section as a goal. In 2016 water bars and ruts were repaired.

Jeff's Trail provides the only trail connection between the Price Headquarters site marked by the Edwards Cabin, the Wire Road, and Bloody Hill. Trail problems, including the loss of the gravel surfacing due to erosion, and exposure of trip hazards, were repaired in 2009. Portions of this trail have been assessed as subject to repeated erosion. A goal of the park is to reroute problematic segments of this trail.

The **Pulaski Trail** and overlook provides a view of the Price Headquarters site and access to a historic cannon battery site. The Pulaski overlook consists of a boardwalk with safety railings. Decking boards and safety rails require regular replacement to ensure visitor safety from trip and fall hazards. Portions of this

trail have been assessed as subject to repeated erosion. A goal of the park is to reroute problematic segments of this trail.

The **Guibor Trail** is a short trail and footbridge that originates at one of the tour road stops. It terminates at the historic location of a confederate cannon battery, marked by a cannon and an interpretive wayside. The footbridge requires the replacement of deteriorated decking boards and new paint. Portions of this trail have been assessed as subject to repeated erosion. A goal of the park is to reroute problematic segments of this trail.

The **West Overlook** and **East Overlook** trails provide access to interpretive wayside exhibits and two of the best views of the Battlefield. The West overlook trail is eroded at the footbridge approaches and around tree roots which causes tripping hazards for pedestrians. This trail requires fill at the bridge approaches and around tree roots. The East overlook has a footbridge and stairs that require the replacement of deteriorated decking boards, sanding, and painting. Portions of this trail have been assessed as subject to repeated erosion. A goal of the park is to reroute problematic segments of this trail.

VEGETATION



Orchard exhibit in front of the Ray House 2016, the front of the Ray House c. 2004, with no exhibit. (Source: Liz Sargent)

Ray House orchard exhibit. Based on a recommendations included in the CLR treatment plan, an orchard exhibit was planted at the Ray House in 2010. As part of the exhibit, 30 trees were planted. The planting included 16 ‘Enterprise,’ 7 ‘Gold Rush,’ and 7 ‘Jona Free’ varieties. The trees were protected from deer browse using trunk guards.

Crop exhibits, Ray and Sharp fields. Based on a recommendations included in the CLR treatment plan, an orchard exhibit was planted at the Ray House in circa 2008 [*NPS to confirm*].

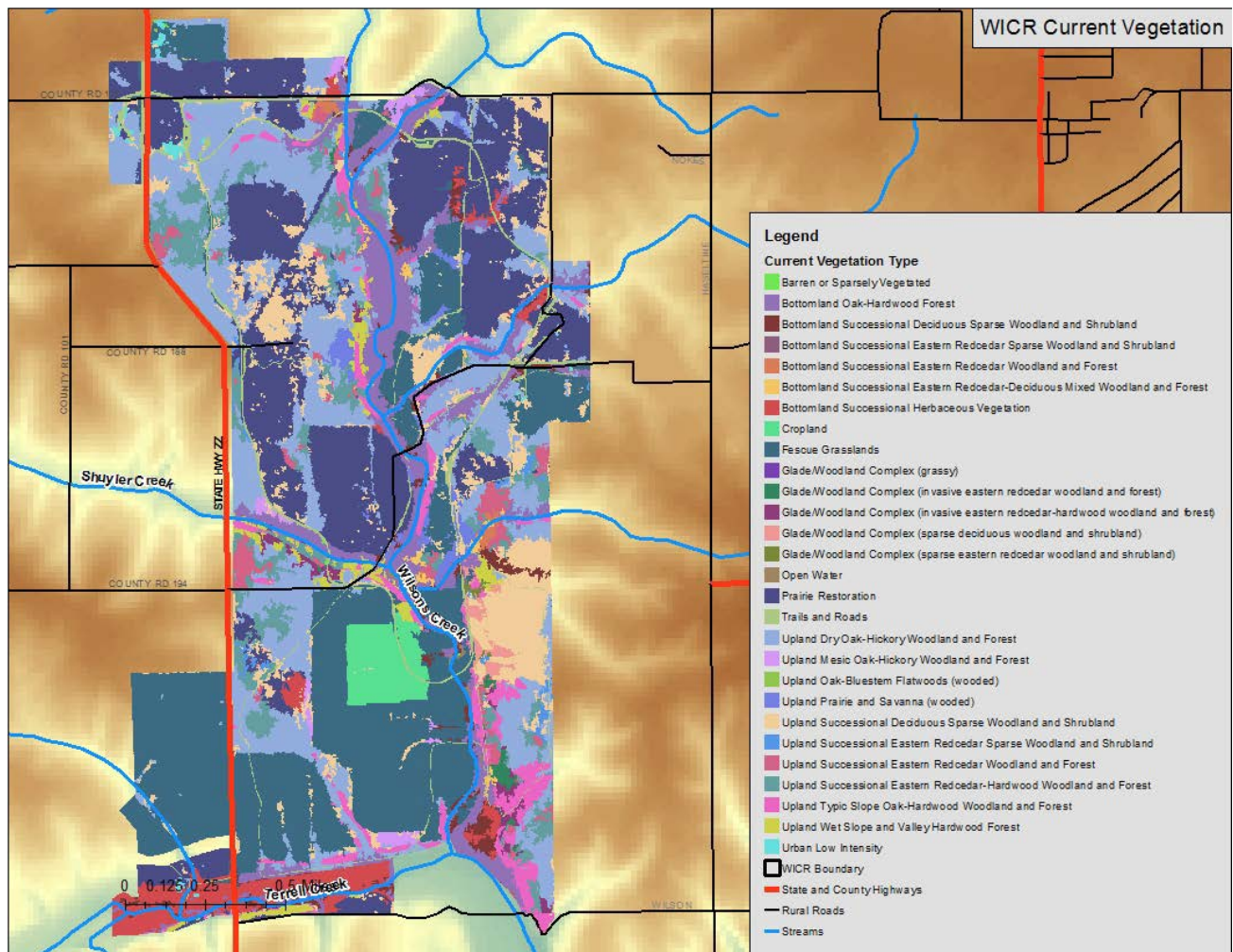
Many of the vegetation communities are managed using prescribed fire. A fire management plan prepared in 2004 identified burn units that coincided with the recommendations in the CLR. The burn units are in the process of being updated to reflect more up-to-date mapping capabilities and knowledge of vegetation communities. The current and proposed future burn units are indicated below.



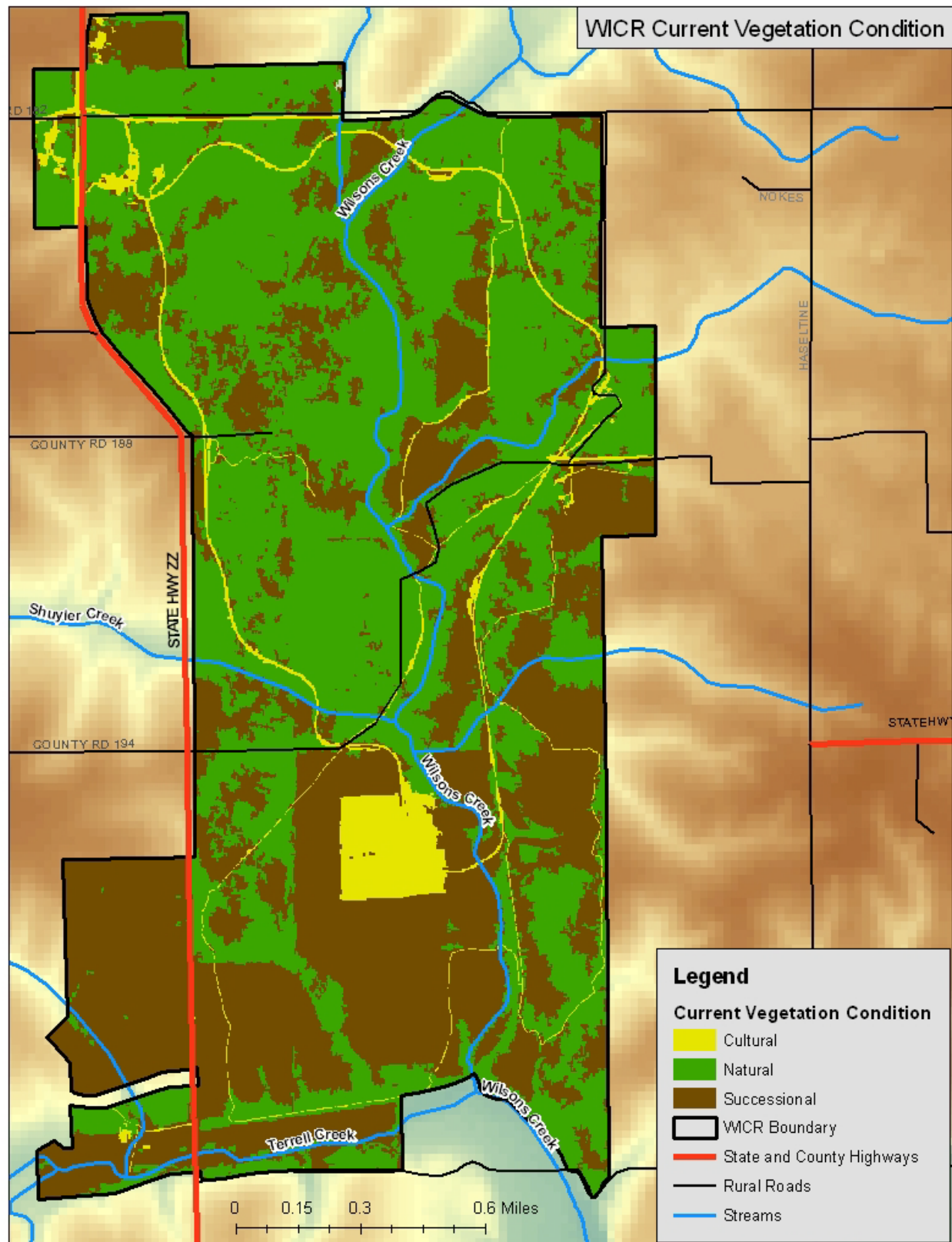
Current and proposed future burn units within Wilson's Creek National Battlefield. (Source: Wilson's Creek National Battlefield)

Invasive species are managed based on the *Heartland Invasive Plant Management Plan and Environmental Assessment* completed in 2013.

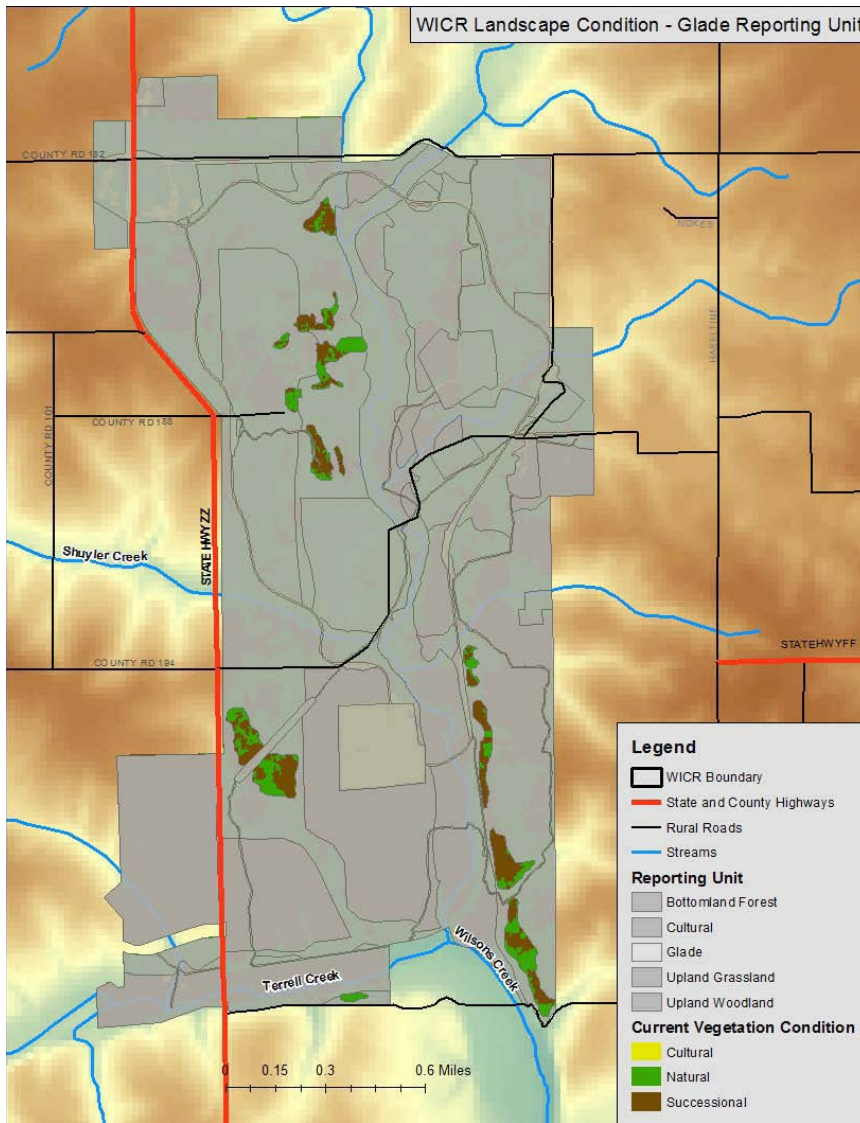
Mapping indicated below notes the vegetation communities and land cover types currently associated with the park.



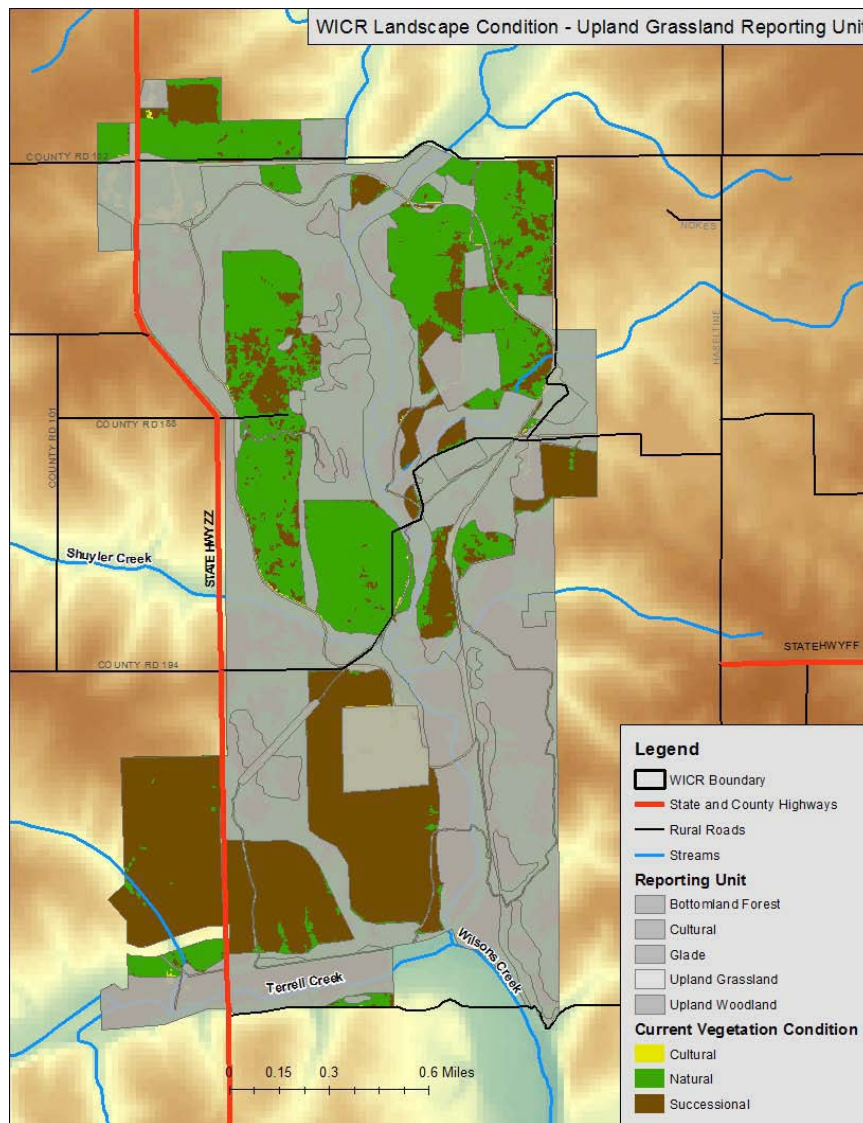
A vegetation communities map was completed as part of the 2013 Vegetation Classification and Mapping project. (Source: National Park Service)



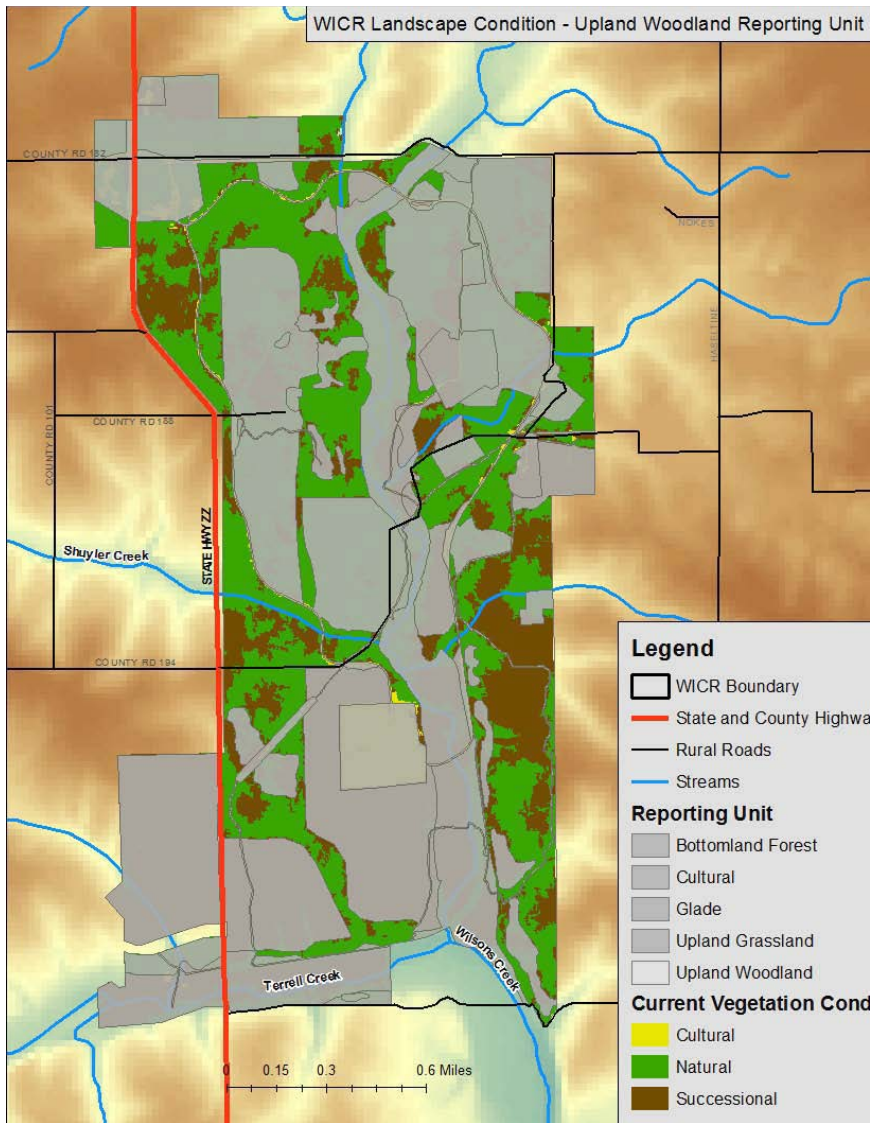
1 The status of vegetation communities was also mapped as part of the 2013 Vegetation Classification and Mapping project. (Source:
 2 National Park Service)
 3



- 1
- 2 Glade communities were mapped as part of the 2013 Vegetation Classification and Mapping project. (Source: National Park Service)



- 1
- 2 Grassland communities were mapped as part of the 2013 Vegetation Classification and Mapping project. (Source: National Park Service)



Upland woodland communities were mapped as part of the 2013 Vegetation Classification and Mapping project. (Source: National Park Service)

BUILDINGS AND STRUCTURES



The Ray House 2016, c. 2004. (Source: Liz Sargent)

Ray House. The Ray House (built in 1852 or 1853) is the oldest extant structure and the most significant in the park. Several structural and preservation maintenance projects have been completed for the Ray House since 2004. Paint has never lasted more than 7 years on the Ray House since rehabilitation work was completed in 1985; the Ray House has been repainted twice since 2004, the first time in 2004, the second in 2009. In 2006, the roof was replaced generally in kind with the addition of zinc roofing strips to prevent moss buildup, and new lightning rods installed, while the fire suppression system was upgraded. In 2007, portions of the porch were repaired or rebuilt, while the door was repaired and corner trim boards were replaced. The house was painted in 2009. In 2013, the Ray House foundation was repointed, and the roof was again replaced. Gutters were installed in 2014.



Ray springhouse 2016, c. 2004. (Source: Liz Sargent)

Ray springhouse. The Ray Springhouse was originally constructed around 1855 and was rehabilitated in 1986. This is one of two historic structures remaining from the battle. In 2006, drainage associated with the Ray springhouse was improved through the addition of two culverts and a path overtop established with fill to replace the boardwalk that provided access to the springhouse as of 2004.

Since 2004, the limestone masonry was repointed in 2009 using an appropriate mortar mixture. Missing stones were replaced with stone from a local quarry and matched as closely as possible to the original in terms of color.



Edwards Cabin 2016, c. 204. (Source: Liz Sargent)

Edwards Cabin. In 2005, the mothballed structure referred to as the Edwards Cabin, which had been moved into the park in 1965 to mark the location of a cabin present during the war that had also served as Price's Headquarters, was rehabilitated for interpretive purposes. The rehabilitation project entailed taking the cabin apart, digging and pouring footings, the installation of roof trusses, a framework, and shingles, replacement of several support logs and reassembly of the log structure, chinking and white

washing of the logs, installation of windows and doors, construction of a porch, construction of a fireplace and chimney, plastering of the interior, construction of a floor, and fabrication of two new doors, steps, and a ramp. A wooden hitching post and wayside exhibit are located nearby. From the cabin, views of Bloody Hill are afforded. In 2016, the roof was replaced on the cabin.

House on General Sweeney Museum property. The “Sweeney” residence, which measures 8,000 square feet, was moved to its current location in 1964. In 1988 Tom and Karen Sweeney acquired the property and replaced the asphalt roof, 3 propane furnaces, and 3 air conditioners, and expanded the house during their ownership. The property includes an outbuilding. The Civil War Museum was constructed in 1991. The house that stands on the General Sweeney’s Museum property was built circa 1890 in Springfield. It was located near the Cox Hospital. The owner of the General Sweeney Museum property during the 1960s, O.K. Armstrong, purchased the house when the hospital proposed to expand and planned to demolish the building. Armstrong had the house moved onto the property.

McElhaney Farm complex. Several projects have been conducted to repair and rehabilitate structures associated with the McElhaney Farm complex. The **McElhaney House**, which is used for law enforcement, resource management, and interpretive offices, was rehabilitated in 2010 to address structural deficiencies. The fire suppression system was upgraded in 2006. The **McElhaney barn** required emergency stabilization involving repair and replacement of sills, support beams, and exterior siding, and correction of drainage problems that included installation of a culvert. In 2011, bracing was installed to prevent the structure from failing, while three failing wooden windows were replaced in 2012. The **McElhaney smokehouse** was rehabilitated in 2005. Work included painting, roof replacement, and replacement of the doors and windows. The windows were replaced in 2013. The **McElhaney well house** was completely re-built in 2010 to upgrade the water supply and storage system and ensure that the restrooms and potable water supply to the McElhaney House was protected following a Public Health Department assessment. Cracks in the **McElhaney storm cellar** were repaired in 2006 to allow for use as a tornado shelter.



Visitor center 2016, c. 2004. (Source: Liz Sargent)

Visitor Center expansion. The park’s visitor center was expanded through construction of a new library addition dedicated in April 2003. The core of the library collection was donated by Springfield attorney, John K. Hulston, and his wife Ruth Hulston. The addition also includes a large conference room.

Maintenance complex buildings. Various updates have been made to the buildings that comprise the maintenance complex. All of the maintenance complex structures are contemporary additions to the landscape, located across Missouri Highway ZZ from the battlefield, and screened from view as regards visitor use areas.

Tour road bridges. In 2013, the tour road bridges were repaired to address deficiencies identified in a Federal Highways bridge inspection of 2006, and resulting from flooding that occurred in 2008. Debris lodged behind the bridge abutments was removed, and erosion problems were repaired.

Trail bridges. All of the trail bridges within the park are contemporary features, many of which were built in the 1980s. Several bridges have undergone repairs since 2004, including sanding and repainting. Bridges are located in association with Skeggs Branch, Gibson Mill Trail, and the Wire Road. In 2014 the Skeggs Branch and Gibson Mill Trail bridges were repaired.

In 2005, the wood stringers, decking, and runners associated with the **County Road (Wire Road) bridge** were replaced based on deterioration noted in a Federal highways inspection. Work was again completed to replace deteriorated wooden structural members associated with the bridge in 2012. Stringers, decking, and the steel substructure of the bridge had been identified as requiring repair during Federal Highways bridge inspections beginning in 2010. In 2013, the Wire Road bridge also underwent repairs that included the provision of rip rap along the banks of Wilson's Creek, replacement of broken and deformed safety cables, adjustment of a stringer bracket, and removal of encroaching vegetation.



Picnic area 2016, c. 2004. (Source: Liz Sargent)

Picnic area structures. In 2010, the picnic area retaining walls and safety railings were replaced. The creosote treated railroad ties that formed the wall in 2004 were replaced with a concrete interlocking retaining wall system. The wooden safety railing was replaced with galvanized steel railing and fencing.

Former wastewater treatment plant. The electric furnace was replaced in 2008.

Split rail fencing at the park entrance and visitor center. Split rail fencing was replaced in the vicinity of the visitor center in 2006. The project entailed construction of 1,300 linear feet of 4-rail-high split rail fencing. The split rail fencing at the visitor center were replaced in 2015.



Split rail fencing at Sharp cornfield 2016. (Source: Liz Sargent)

Split rail fencing, Ray cornfield, Sharp fields. Split rail fence marks the Sharp cornfield which Missouri State Guard and Confederate troops camped within and Union troops advanced through in order to block the main transportation corridor, the Wire Road. Split rail fencing was replaced around the Sharp Cornfield in 2016. Approximately 3,306 linear feet of oak split rail fencing was demolished and replaced. The new rails were installed using historic fence construction methods (i.e. not nailed) so repairs can be easily made after storm events. The fence is part of the cultural landscape plan and is critical to delineate the historic field and provides visitors with a frame of reference. The split rails were last installed in 2005, rails have a maximum life span of ten years.

Fencing, maintenance complex area. A fence was installed at the maintenance complex to improve security in 2012.

SMALL-SCALE FEATURES



Park identity sign 2016, c. 2004. (Source: Liz Sargent)

Park identity sign. A new identity sign was built near the entrance to the park along Farm Road 182 in 2014. The sign measures 214 by 64 inches. It includes a wooden panel constructed of double-sided western red cedar with routed graphics, a painted finish, western red cedar arrowhead, and c-channel steel mounting. The new sign was set atop an existing stone base.



Gates at park entrance and fee collection site. The park entrance gates were replaced in 2009. The new wooden gates were incorporated into the existing stone pier system.



Wayside exhibit on Bloody Hill 1616. (Source: Liz Sargent)

Wayside exhibits. Twenty-two new wayside exhibits were added along the Bloody Hill Trail based on the Long-Range Interpretive Plan and an Environmental Assessment prepared for proposed improvements in 2012. These are the only waysides that have been added to the park since circa 1985. Additional waysides are planned for installation in association with the site of the DuBois Battery position.

Lyon marker. The Lyon marker is located within the area that has been improved through the addition of new wayside exhibits. The character of the area where the marker is located has been altered since 2004 with the addition of the new wayside exhibits as well as split rail fencing that edges the trail to the marker. The fencing is designed to protect the sensitive glade habitat around the marker from access by visitors.

Benches. In 2006, four benches near the visitor center were replaced with recycled plastic seating intended to reduce maintenance costs.

Several wooden benches located along the park's trail system were sanded and painted in 2008.

Picnic tables and benches. In 2008, 33 wooden picnic tables and 7 benches were added to the picnic area, replacing 26 wooden tables and 7 wooden benches that had been present in 2004 and were in poor condition. The new picnic furniture was recycled plastic and handicap accessible.

Bike racks. All five bike racks associated with the tour road were replaced in 2010. Wooden racks were replaced with recycled plastic features.

Hitching rails. Hitching rails are no longer associated with the tour road stops, as were present in 2004. The date of their removal has not been documented, but likely occurred in association with one of the tour stop upgrade projects, such as the wheelstop replacements in 2010. Bollards remain in place and were stained in 2010.



Wheelstops associated with tour road parking 2016, c. 2004. (Source: Liz Sargent)

Wheelstops. The wheelstops present in association with the tour stop parking areas in 2004 were replaced with 127 recycled rubber features in 2010.

Cannon. New cannon were proposed as an interpretive aid in the 2009 Long-Range Interpretive Plan. Several cannon were added along the rehabilitated Bloody Hill Trail in conjunction with the new wayside exhibits in 2012.

Signage. The park identity sign was replaced in 2014.

Gravestone. Grave markers in the Edgar Cemetery were the focus of a cleaning project in 2014.

UTILITIES



KAMO overhead electrical transmission lines 2016, c. 2004. (Source: Liz Sargent)

Overhead electric transmission line. The KAMO overhead transmission line that extended through the park as part of a utility easement as noted in the 2004 CLR has since been replaced with a higher voltage line. The 2004 CLR noted that the line was scheduled to be removed or relocated in support of restoration of the park's historic viewshed. The proposed relocation was found to be more visually intrusive, as a portion of the new alignment was proposed to cross the visitor center area and part of Bloody Hill. Instead, the line was upgraded with higher voltage lines. The former wooden poles were replaced with a weathering steel in the same locations by KAMO in c. 2003–2004. An archeologist conducted shovel tests for the project, which was reviewed by the Missouri State Historic Preservation Office for compliance.



Update to Chapter Four Analysis and Evaluation

National Register of Historic Places Status

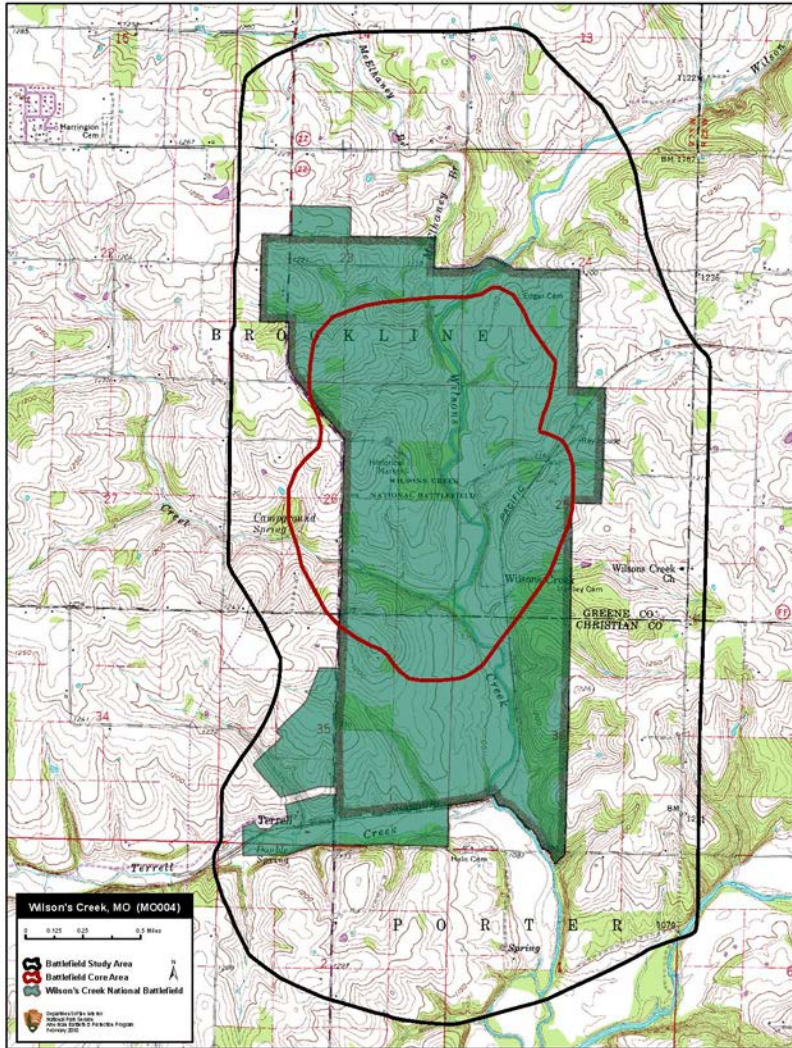
As noted in the 2004 CLR, Wilson's Creek National Battlefield was administratively listed in the National Register of Historic Places in 1966 based on passage of the National Historic Preservation Act. National Register documentation was prepared for the park in 1976, and the nomination accepted by the Missouri State Historic Preservation Office and the Washington office of the National Register.

Since preparation of the 1976 nomination, as well as the 2004 CLR, new scholarship has suggested that the extent of the battlefield was greater than indicated in the nomination. Specifically, the 2011 Update to the Civil War Sites Advisory Commission *Report on the Nation's Civil War Battlefields* identified both a larger study area, as well as an expanded area that was identified as eligible for listing in the National Register of Historic Places. The 1976 nomination focused on the Wilson's Creek National Battlefield property, which at the time extended over 1749 acres. The area indicated as eligible for listing in 2011 extends over more than 5,109 acres, as indicated in the map below. A large part of the eligible battlefield occurs on privately held property. Wilson's Creek National Battlefield, including lands acquired since 2004, is entirely encompassed within the study area and National Register-eligible boundary.

Civil War Sites Advisory Commission Report Update

Wilson's Creek was identified in the original 1993 study as a priority III battlefield requiring additional protection.

The updated study prepared in 2011 suggests that Wilson's Creek, which is one of seven Missouri battlefields already listed in the National Register of Historic Places, should be considered for a National Register nomination boundary expansion to recognize the 3,300 acres of historic land that fall outside of the National Park Service unit and are not within the current documentation.¹ The study area was indicated as 5,109.74 acres, the core area at 1,021.26 acres, and the potential National Register boundary as the same 5,109.74 acres associated with the study area. Of these, 1,749.91 are indicted as already listed.² The study suggests that there are a total of 2,968,48 unprotected, intact acres remaining within the Wilson's Creek study area.³



ABPP map for the 2011 update to the Civil War Sites Advisory Commission *Report on the Nation's Civil War Battlefield* prepared for the state of Missouri. (Source: ABPP)

National Register Nomination Update and Boundary Adjustment

The National Park Service has commissioned a National Register nomination update that will include the entire study area as part of the listed property.

1. National Park Service, *Update to the Civil War Sites Advisory Commission Report on the Nation's Civil War Battlefields; State of Missouri* (Washington, D.C.: American Battlefield Protection Program, March 2011), 15.
2. National Park Service, *Update Report*, 21.
3. National Park Service, *Update Report*, 24–25.

1 The nomination may address the addition of the General Sweeny's Museum collection as part of the park's
2 museum collection, which have rendered the

3 Artifacts and archival records in Wilson's Creek National Battlefield's museum collections
4 represent a nationally prominent and comprehensive documentation of the Civil War in the
5 Trans-Mississippi West.⁴

6 **Comparative Analysis**

7 The information conveyed in the 2004 CLR regarding the assessment and evaluation of landscape resources
8 remains consistent with the recommended approach today. The lists of contributing, non-contributing, and
9 missing resources are also consistent with the recommended approach today, although some of the non-
10 contributing features described in 2004 have since been replaced with other non-contributing resources.

4. National Park Service, *Wilson's Creek National Battlefield General Management Plan Amendment/Environmental Assessment/Assessment of Effect for the Civil War Museum and Addition Lands* (July 2007), 4.

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