Wilson's Creek National Battlefield

Republic, Missouri

Cultural Landscape Report Volume 1



September 2004

Wilson's Creek National Battlefield

Republic, Missouri

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Cultural Landscape Report, Part I

Prepared for

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Chapter One • Management Summary

CHAPTER ONE

MANAGEMENT SUMMARY

Administrative Context

In 2003, the National Park Service completed a General Management Plan/Environmental Impact Statement for Wilson's Creek National Battlefield. In support of the General Management Plan (GMP) planning process, the National Park Service (NPS) commissioned John Milner Associates, Inc. (JMA, formerly OCULUS) in 1999 to prepare this Cultural Landscape Report (CLR). The CLR, in concert with the objectives and approaches established in the GMP, is intended to guide treatment and use of the historic landscape. The park's GMP "provides a framework to guide park management decision making for the next 15-20 years,"¹ replacing a 1977 master plan that was prepared 15 years after the site was established. The 1977 master plan was oriented towards the development of facilities to support visitation to the Civil War site. The existing tour road, visitor center, and maintenance facilities were identified in the master plan as development objectives; these facilities are now largely complete, allowing for the establishment of new goals.

Project Goals

Wilson's Creek National Battlefield (NB) is listed on the National Register of Historic Places as a nationally significant historic battlefield landscape that retains a high degree of integrity. Because Wilson's Creek NB encompasses approximately 75 percent of the historic battlefield landscape, much of which is integral to the significance of the battle, restoration of the landscape to its 1861 appearance has for some time been considered an achievable and desirable goal by the NPS. The CLR, by documenting the historic landscape, comparing historic and existing landscape conditions, assessing the integrity and condition of the existing landscape, and evaluating its potential for further restoration of 1861 conditions, provides appropriate treatment recommendations and guidelines to support this goal. In addition, "because this is a historic place that included intact presettlement landscapes at the time of the battle, the CLR will produce treatment recommendations that closely integrate the concerns, issues, and methodologies for natural and cultural resource management."²

Since the 1970s, the park has focused on vegetation management as one of its primary tools to effect battlefield scene restoration. A primary focus of the CLR is therefore the evaluation of current vegetation management practices and the identification of additional strategies that will facilitate historic scene restoration. Another goal of the CLR is to synthesize and consolidate the information available in the numerous important studies and investigations that have been conducted into various aspects of the site's history over the past 35 years.

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¹ National Park Service, *Final General Management Plan/Environmental Impact Statement Plan/Wilson's Creek National Battlefield* (Washington: U.S. Government Printing Office, April 2003), 3.

² National Park Service, "Cultural Landscape Report/Wilson's Creek National Battlefield" (Omaha: Architect/Engineer Contract Design Services, February 25, 1999), 3.

Additionally, although the primary significance of this landscape is the August 10, 1861 Civil War Battle of Wilson's Creek, a clearer understanding of the landscape at the time of the battle will likely result from unraveling what occurred within the landscape prior to and after the battle. The CLR therefore aims to portray the landscape throughout its known history, providing a good understanding of the origins of and forces behind landscape change. An added benefit of this approach is that the layers of historical information which are revealed and presented can be utilized to enrich the park's interpretive program.

Study Boundaries and Description of Properties Involved

Wilson's Creek NB is located ten miles southwest of the town of Springfield, in southwestern Missouri. The CLR study area is consistent with the current boundaries of 1,750-acre park, which straddles Christian and Greene Counties, and is bisected by Wilson's Creek (see *figures 1 & 2*). The park spans portions of Sections 23 through 26 within Range 23 West in Brookline Township, and Sections 35 and 36 within Range 23 West in Logan Township.

Generally rectangular in form, Wilson's Creek NB is approximately three miles long and one mile wide. The northwestern corner of the park is located north of the intersection of Highway ZZ and Elm Street (Farm Road 182). From this northwestern corner, the park boundary follows an east/west alignment until reaching McElhaney's Branch where it turns to the south, then extends as far as Farm Road 182. At Farm Road 182, the boundary turns east again, paralleling the roadway to its south until it intersects Farm Road 111. The park boundary then turns due south, paralleling the roadway to its west until reaching the southern edge of Section 24. At this point, the boundary turns to follow the section line in an easterly direction, encompassing the Ray House, before turning south and extending below the Ray House and McElhaney farm properties. The boundary cuts west briefly, and then turns south again, following the projected alignment of Farm Road 111 for the remainder of the park's eastern edge. Just east and north of Wilson's Creek, the boundary turns to the northwest, following Christian County Road and the northern bank of Wilson's Creek until reaching the former alignment of the Missouri Pacific Railroad line, which it follows in a southwesterly direction until reaching Highway ZZ. The western park boundary consists primarily of Highway ZZ, except in the northwestern corner where it extends west to include the maintenance area.

As illustrated in *figure 3*, the park boundary does not encompass the extent of the Wilson's Creek Civil War battlefield core and study area landscape as identified by the Civil War Sites Advisory Commission for the United States Congress during the early 1990s. Three areas in particular that were important to the events associated with the battle lie beyond the existing park boundary: Moody's Spring, the Dixon House, and the western slopes of Bloody Hill. These sites have been discussed in the CLR documentation and analysis using remote study techniques, but are not part of the formal study area.



Figure 1. Context and Location Maps.



Figure 2. Study Area Boundary Map.



Figure 3. Battle of Wilson's Creek battlefield study and core areas as defined by the Civil War Sites Advisory Commission in support of the 1992 *Report on the Nation's Civil War Battlefields.*

Project Scope and Methodology

Project Scope

CLRs are generally intended to provide a cohesive and synthetic view of a site's historic and existing features through comprehensive documentation, analysis, and evaluation. Using this knowledge as a basis for decision making, CLRs subsequently provide carefully considered cultural resource treatment recommendations. While CLRs vary in their emphasis and level of investigation, they are typically inter-disciplinary in nature, drawing on information developed by historians, landscape architects, ecologists, botanists, architects, archeologists, as well as other project-specific disciplines. The level of investigation conducted for each individual CLR is determined by many factors, potentially including the historical significance and integrity of the site, identified management objectives, past documentation efforts, and landscape alterations or changes under consideration.

Additionally, CLRs are composed of three parts:

- Part I includes a site physical history, existing conditions documentation, comparative analysis of historic and existing conditions, and National Register-level significance evaluation and integrity assessment.
- Part II presents a treatment plan based on the information developed within Part I and on identified management goals for the site.
- Part III records landscape treatments.

This volume includes Part I of the CLR for Wilson's Creek NB; Part II is conveyed in volume 2. No work has been conducted in support of a Part III CLR for Wilson's Creek NB.

In order to support the reader's understanding of the specific focus of the Part I Wilson's Creek NB CLR, the scope of work provided to the team by the NPS is summarized below.

Part I Scope of Work—Project Organization, Research, Inventory, Investigations, Analysis, and Report Production

Project Organization

- Attend a pre-design conference convened at Wilson's Creek NB in order to establish project administrative procedures;
- coordinate project activities;
- acquire government-provided resource materials;
- identify available community resources;
- become familiar with project properties and the surrounding general area;

- identify special project considerations unique to the park; and
- meet park and regional CLR team personnel.

Field Investigations and Research

- Complete research and field investigations as necessary to develop the narrative report and supporting graphics and illustrations;
- review project goals, background, and the physical nature of the site;
- complete field investigations to identify, confirm, and document (non-measured) feature locations, condition, materials, and fire history;
- complete research and investigations to supplement available research and field data; and
- develop a supplemental analysis of related resources beyond the boundaries of Wilson's Creek NB through remote study techniques, and evaluation of these areas to define the extent of the battlefield and the historic and natural character in general terms.

Cultural Landscape Report

Produce a narrative report and supporting illustrative graphics composed of the following:

Chapter 1 - Administrative Data or Management Summary

Sections to include:

- administrative context of the project;
- project background;
- study area boundaries and description of properties involved;
- methodologies and scope; and
- roles of A/E staff.

Chapter 2 - Site History

Provide a narrative section describing the physical evolution of the landscape for all cultural periods of use and development, beginning with a summary of pre-settlement American Indian uses and continuing through the current year. The period of the Civil War will be a major focus of this chapter. Past land uses, including American Indian activities, burning, logging, grazing, farming, and NPS vegetation restoration efforts are considered particularly pertinent to the development of the landscape. The associated historical context and social history will be included to the extent necessary to establish the parameters of a National Register level evaluation of the site. Each major period of development in this chapter will include:

Sections to include:

- historical context;
- description of the chronological development and evolution of the physical landscape identifying primary resources associated with circulation, spatial organization, land use patterns, natural and cultural vegetation, structures, views and viewpoints, materials used, and other character-defining landscape features;
- description of how past land uses (such as burning, grazing, farming, and NPS management) have impacted the physical development of the landscape;
- identification of documentation gaps and further research needs;
- supporting historic photographs, maps, and drawings; and
- historic period plans illustrating the known physical characteristics, natural and cultural vegetation, and other features associated with the period, and indicating the relative level of reliability for the sources used to document the various features.

Chapter 3 - Existing Conditions

Develop a narrative description, illustrated by maps, photographs, and/or drawings, of the existing condition of landscape features. Sections will include:

- narrative description of the primary landscape features, such as the environmental setting, spatial organization, management land uses, cultural and natural vegetation, circulation patterns and features, structures and structural clusters, small-scale features, above-ground utilities, and if available as previously mapped information, below-ground utilities. Vegetation is to be described by size (area), general species composition or stand type, and a general measure of density. These descriptions will be based on mapping from aerial photographs and from existing surveys, and will not involve additional measured inventory or sampling work. This section also will use previously recorded information to describe and map threatened, endangered, and state-listed vegetative species populations, populations of exotics, and hazardous trees. Finally, the fire history of the site will be discussed using available data, potentially including dendrochronological readings from cut slabs, increment borings conducted on site, and analysis of the results of other fire history studies;
- condition assessment of inventoried landscape features;
- existing conditions base map;
- summary of existing knowledge about archeological resources, such as foundations, artifact concentrations, and extent of excavations using published sources or information obtained through staff interviews; and
- map of the zones of concentration of archeological resources.

Chapter 4 - Management Issues

Develop a narrative section describing and refining the management issues and concerns that are relevant to the treatment plan, as identified through review of park planning documents and in consultation with park staff.

Chapter 5 - Analysis

Develop a narrative section, illustrated by maps, photographs, and/or drawings, describing the integrity of various features or components and the significance of the landscape and the period(s) of significance. Sections to include:

- narrative description of the character-defining features and characteristics of the landscape;
- analysis of how known archeological resources contribute to the integrity and significance of the landscape and the potential value of these resources for interpretation;
- narrative description of the integrity of the existing prairie restoration units and other vegetation types in comparison to pre-settlement conditions;
- assessment of the historical significance of the reconstructed prairie and other vegetation areas;
- identification of one or more periods of significance for the landscape, or recommended modification or concurrence with the period of significance determined as part of the existing National Register nomination;
- identification of the character-defining features from the recommended period(s) of significance; and
- analysis map indicating the historical integrity of the landscape.

Part II Scope of Work—Synthesis and Development of Recommendations, Report Production

Produce a narrative report and supporting illustrative graphics composed of the following:

Chapter 6 – Treatment Recommendations

Propose and describe several overall alternative treatment approaches for the landscape, using informal schematics. Propose a preferred treatment alternative for the overall approach (i.e. preservation, restoration, or rehabilitation) to treating the landscape. Produce a design/development "Treatment Plan" to illustrate the overall proposed treatment recommendation. Specifically address the following:

- detailed recommendations and guidelines for applying and implementing the preferred general treatment recommendation;
- identification of further research needs;
- illustrations that articulate specific treatment at a conceptual plan level;
- development of detailed vegetation management recommendations that deal with general vegetative units, prairie areas, and hazardous trees, and provide guidance on how to reach desired species composition and cover, density, and ground cover;
- full integration of the management of cultural and natural resources.

Chapter 7 – Implementation Guidelines

Prepare recommendations for phasing and packaging the detailed treatment recommendations presented in Chapter 6. Describe the steps necessary and the priority for implementing the preferred treatment in phases. Include accompanying project statement consistent with the NPS Project Management Information System software. Guideline recommendations should identify the desired result and measures to evaluate success in achieving those results.

Project Methodology

The Part I CLR for Wilson's Creek NB has been prepared in accordance with the guidance offered in the most recent versions of various federal standards documents, many of which are cited for their relevance in the Statement of Work for the project:

- A Guide to Cultural Landscape Reports: Contents, Process, and Techniques;
- NPS Director's Order #28: Cultural Resource Management Guideline;
- NPS-77: Natural Resources Management Guidelines;
- NPS-SER-82: Biotic Cultural Resources: Management Considerations for Historic Districts in the National Park System, Southeast Region;
- The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes;
- The Uniform Federal Accessibility Standard (UFAS) and Americans with Disabilities Act Accessibility Guidelines (ADAAG);
- The National Park Service's *Guiding Principles of Sustainable Design*;
- NPS-10: Preparation of Design and Construction Drawings;
- National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation;
- National Register Bulletin 30: *Guidelines for Documenting and Evaluating Rural Historic Landscapes*; and
- National Register Bulletin 40: *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields.*

In addition, the methodology used by JMA team members in preparing each component of this study is described in detail below.

Background Research and Data Collection

In October 1999, CLR project team members met at the park for an initial project conference and site orientation. Meeting attendees included:

NPS Midwest Regional Office

• Sherda Williams, project manager and Historical Landscape Architect

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- Richard Luscardi, Superintendent
- Gary Sullivan, Chief of Resources Management and project point of contact
- Connie Langum, Park Historian
- Ron Miller, Chief of Maintenance
- Jeff Patrick, Park Ranger
- John Sutton, Chief Ranger
- Lisa Thomas, Ecologist

Missouri State Historic Preservation Office

• Judith Deel, Director of the National Register/Historic Preservation Program

Southwest Missouri State University

• Dr. Bill Piston, military history advisor

JMA team

- Liz Sargent, project manager and historical landscape architect
- Dr. Benjamin Ford, project landscape historian (Rivanna Archaeological Consulting)
- Dr. Gerould Wilhelm, project botanist/ecologist (Conservation Design Forum)

This conference coincided with JMA's initial field investigation and research visit to the park and the Springfield area. The JMA project team spent a day in the field becoming familiar with the site and its resources. In addition, team members familiarized themselves with the park archives and other resources. The team copied and borrowed various documents and maps made available by NPS personnel.

Concurrent with the start-up conference, Benjamin Ford, the project landscape historian, conducted initial research efforts at two Springfield area repositories. Dr. Ford spent two half days reviewing and copying resources in the Mr. and Mrs. John K. Hulston Civil War Research Library at the Wilson's Creek NB Visitor Center. In addition, Dr. Ford conducted research at the Greene County Archives and Records Center.

In late November 1999, Dr. Ford returned to Missouri to continue research efforts on behalf of the CLR. In addition to repeat visits to the park library and the Greene County Archives and Records Center, Dr. Ford also visited General Sweeny's Museum, the Springfield and Greene County

Library Center, and the Christian County Library in Ozark, Missouri. At the Hulston Civil War Research Library, Dr. Ford focused on reviewing and copying several maps, Superintendent's Annual Reports, and documents from the vertical subject files. He also borrowed several NPS reports and two library books. Robert Neuman, of the Greene County Archives and Records Center, assisted in locating pertinent documents relating to the history of Wilson's Creek NB and its former residents, including historic plats and atlases, and General Land Office records and surveyor's notes.

At General Sweeny's Museum, Dr. Ford studied the photograph and map archives and also viewed the large Trogdon Civil War artifact collection purchased from former area residents. Copies of certain maps and photographs were requested from the museum's owner, Dr. Thomas Sweeney. At the Christian County Library, Ms. Mabel Phillips spent time helping Dr. Ford locate Christian County plats and maps and other secondary source documents.

Dr. Ford also visited the Missouri Historical Society in St. Louis, and the Missouri State Historical Society and Western Historical Manuscript Collections in Columbia, Missouri. At the Missouri Historical Society, the Schoolcraft diaries were read and information on the early history relating to the establishment of a national park at Wilson's Creek was found in the *Missouri Historical Review*. Early maps, gazetteers, and guidebooks were reviewed in the Missouri State Historical Society. Very little information was available from the Western Historical Manuscript Collection because many of the files containing information on Wilson's Creek NB were stored at an alternative, non-public location and could not be retrieved on short notice.

After completion of the second research trip, the copied and borrowed resources were reviewed. As additional resources were identified which were not found in any of the previously visited repositories, requests were made to the NPS and other organizations for copies. A visit to the University of Virginia Library was also made to track down additional resources and provide general context and background for the CLR.

Dr. Ford conducted a final research trip in June of 2000 to the National Archives in Washington, DC, and Springfield, Virginia. Census data for Greene and Christian counties from the midnineteenth century through the early twentieth century, including population statistics and agricultural and industrial production figures, were reviewed. A check was also made for additional maps, drawings or other images relating to the battlefield landscape.

Throughout the research process, copies of additional historic maps and photographs were requested and received from NPS collections at Wilson's Creek NB and from General Sweeny's Museum in Republic, Missouri.

Historical Landscape Documentation/Site Physical History

The site physical history was drafted upon review of all materials collected during the various research efforts. The important dates associated with physical events at Wilson's Creek were organized into a site chronology, which was then divided into a series of definable historic periods. Each period was then illustrated through historical narrative, supplemented with period maps, photographs, and plans. For periods where information on the physical history of the site was scarce, additional research was conducted in an attempt to fill in gaps in data.

Identification of Pre-settlement Plant Communities

As noted earlier, vegetation has been, and continues to be, a critical component of the battlefield for historic scene restoration. Knowledge of pre-settlement vegetation is of great importance to this project. In order to understand the pre-settlement flora and plant communities of Wilson's Creek NB it is first necessary to discern which species of plants are native to the park. One of the best sources of pre-European settlement vegetation are the United States General Land Office (GLO) survey notes prepared for this area in 1835. They describe vegetative conditions along the section lines as they were surveyed prior to settlement during the historic period by individuals of European descent. The native flora is only diffusely evident and nowhere untouched by post-nineteenth-century cultural activities. Current plant assemblages over the majority of the Springfield plateau are for the most part the legacy of nineteenth- and twentieth-century intensive agriculture, livestock grazing, and fire suppression.

Workable conceptualizations of the pre-European settlement vegetation are possible to determine from a synthetic analysis of the native plants that are known to inhabit the remnant niches, however degraded, that can be found scattered throughout the park today. "Conservative" native species, as defined herein, are those that are known to exhibit strong affinities for certain plant associations, soils, and geography.³ Therefore, an analysis of all the conservative native species of the park supports a fairly clear image of the plant communities that characterized the site prior to European settlement.

The NPS has compiled a vascular flora of Wilson's Creek NB that was useful to the project team in undertaking their work.⁴ The flora, a compilation of multiple sources, appears to be based upon various studies and floristic reports done over the last several years. It lists 633 species names that are consistent with USDA PLANTS, a standard for the federal government. The list does not indicate which species are native or introduced, however.

Some editing of the compiled flora was necessary before commencing analysis of the park's vegetation to determine pre-European settlement species and communities. Editing involved culling species listed in the flora under two different names, and removing species not generally considered to grow in the vicinity of southwest Missouri that were likely misidentifications. Once the list was edited to exclude these likely misidentifications, double listings, and unlikely variants, 52 names were dropped or replaced with more likely, and/or observed, taxa. During field investigations conducted between March 30 and April 1, 2000, 28 species that were not in the NPS flora were noted. These adjustments, along with later additions and corrections generated by another document provided by park staff in the spring of 2002, bring the flora to 646 plant species.⁵ Past experience of the project team has shown that a compiled flora such as this is likely to be 85 to 90 percent accurate as edited and probably represents about 90 percent of the actual flora. The team's working flora is presented in Appendix C. It uses nomenclature adjusted to approximate that rendered by Steyermark in 1963. Steyermark is used not because it is the most "up-to-date" nomenclature but

³ Gerould S. Wilhelm and Douglas Ladd, "Natural Areas Assessment in the Chicago Region" (paper presented at the 53rd North American Wildlife and Natural Resources conference, 1988), 361-375; John B. Taft et al., "Floristic quality assessment for vegetation in Illinois, a method for assessing vegetation integrity," 1997.

⁴ National Park Service, "The Flora of Wilson's Creek National Battlefield" (Republic, MO: Wilson's Creek

National Battlefield, Prairie Cluster Long-Term Ecological Monitoring Flora Database, 1999), 1-25.

⁵ National Park Service, "Museum Collection List" (Republic, MO: Wilson's Creek National Battlefield, 2002), 1-23.

because it is the only consistent and comprehensive presentation of species concepts currently available for Missouri's flora.⁶

Another aspect of the vegetation analysis conducted for the CLR that is germane to this study is the identification of rare plant species. Three of the plant species located within the park that are currently listed as rare—bladderpod (Lesquerella filiformis), greenthread (Thelesperma trifidum also Th. Filifolium), and royal catchfly (Silene regia), are likely components of the pre-European settlement flora. Two other species observed within the park's limestone glades that are listed as "rare" in Missouri—buffalo grass (Buchloë dactyloides) and blue grama grass (Bouteloua gracilis)—are problematic for inclusion in a native flora. Stevermark restricted the native occurrence of these two grasses to the loess hill prairies of Atchison and Holt counties, except that blue grama grass was also likely native to Jackson and Clay Counties on prairie knolls. He suggested that buffalo grass was adventive along railroads in Jackson, Clay, and St. Louis Counties. There is no evidence that either species occurs natively on limestone glades anywhere east of Kansas and Nebraska. Additionally, two prominent Missouri botanists strongly question the nativeness of buffalo grass and blue grama grass in the Ozark section of Missouri.⁷ Both suggested that these low-growing grasses were likely planted at Wilson's Creek. This was borne out through review of documents available at the park, and contact with LaFayette Home Nursery of Fayetteville, Illinois, a prairie restoration contractor who planted "low-profile prairie mixes" at Wilson's Creek in 1986. The contractor passed along invoices and lists of species mixes used during that time period. These records indicate that another firm, J.L.A. Construction, installed a cool season mix over 11-1/2 acres in September 1986 and that LaFayette Home Nursery installed 43 acres of a low-profile prairie mix that same season. Both buffalo grass and blue grama grass were standard inclusions in the low-profile mix used at Wilson's Creek. These two species have therefore not been included in the delineation of the pre-European settlement flora.

In addition to the three rare species known at Wilson's Creek NB, documentation exists that suggests that *Stenosiphon linifolius* was collected at the park in 1991.⁸ The occurrence of this species would represent a significant increase in the range of this species in Missouri. If its existence is verified, it is recommended that this species be included in future monitoring events.

In order to evaluate the flora conveyed in Appendix C and to compile the lists of likely plant communities associated with Wilson's Creek NB over time, Conservation Design Forum (CDF) used a code system. Each species was denoted with various codes tied to a basic assessment system relating to provenance and dependency on remnant conditions, and conservatism.⁹ Each species is preceded by its "coefficient of conservatism," or C value, as given by Ladd, where plants assessed at "0" provide no confidence that their presence on a site reflects pre-European settlement conditions, and those given a "10" provide an extremely high level of confidence that their presence at a site reflects stable native conditions.¹⁰ Based on this system, of the species listed in

⁶ Julian A. Steyermark, A. *Flora of Missouri* (Ames: Iowa State University Press, 1963).

⁷ Douglas Ladd of the Missouri Chapter of the Nature Conservancy and Mike Skinner of the Missouri Department of Conservation.

⁸ National Park Service, "Museum Collection List," 1-23.

⁹ R.D. Panzer, R. Stillwaugh, and G. Derkovitz, "Remnant Dependence among Insects of the Chicago Region" In *Natural Areas Journal* 15 (1995): 101-116.

¹⁰ Douglas M. Ladd, "Floristic quality assessment in Missouri" (in ed., Webster Groves, MO: The Nature Conservancy); Wilhelm and Ladd, "Natural Areas Assessment," 361-375; Floyd Swink and Gerould Wilhelm, *Plants of the Chicago Region*, 4th ed. (Indianapolis: Indiana Academy of Science, 1994); John B. Taft et al., "Floristic quality assessment for vegetation in Illinois, a method for assessing vegetation integrity" (n.p., 1997).

Appendix C, 489 are native to the park and 157 are adventive and were not part of any presettlement plant community.

Historic Period Plan Preparation

Historic period plans of the Wilson's Creek NB landscape were prepared as part of the CLR for each historic landscape chronology period identified in the site physical history. The team developed each base map through registration with existing conditions information, so preparation of the existing conditions base map preceded work on the historical base maps. Once this information was developed, the project team utilized primary source materials to create skeletal maps for various periods. Examples of the primary sources consulted to prepare the period plans include historic aerial photographs, plats, atlases, road petitions, park mapping, and battlefield mapping. Available secondary sources were also used to corroborate information, and to generate queries for primary sources. Secondary sources were typically evaluated for their credibility and utilized with caution.

The team augmented the skeletal maps through review of historic photographs and written descriptions of the landscape found in accounts of the Civil War battle, the Schoolcraft diaries, GLO survey notes, letters, and wills. Written sources were used to identify potential features and elements within the landscape for which no graphic information was available. The records of archeological investigations and previous park planning studies also contributed to map development.

All of the historic period plans are drawn and presented at a consistent scale and configuration using the existing conditions base map created in AutoCAD to register information. Features appearing over two or more periods are consistently located and represented. In some cases, the historic period plans are annotated to describe conditions that are difficult to render graphically, such as the composition of vegetative communities, land uses, information that is speculative, and land ownership.

Little cartographic information, except at the most diagrammatic level, exists for the landscape prior to the mid- to late nineteenth century. Depiction of the landscape prior to the Battle of Wilson's Creek requires a fair amount of conjecture. Conjectural information is identified as such on the historic period plans.

Existing Conditions Field Surveys and Base Map Preparation

While written narrative is necessarily the primary method utilized to convey pertinent information in this study, a CLR by definition focuses on the physical and tangible properties of the landscape. This study therefore incorporates as many relevant graphic images—photographs, drawings, and other types of illustration— as possible into the existing conditions documentation.

The existing conditions base map prepared for the Wilson's Creek NB CLR was compiled by JMA from numerous sources. Review of the list of drawings available in the Denver Service Center's Technical Information Center, and those available in the Midwest Regional Office, indicated that no comprehensive existing conditions base map has previously existed for the park. The closest representations of the current park landscape in a 1988 trail study, and Gremaud's 1986 "Current Vegetation of Wilson's Creek NB." These, in addition to 1990s-era aerial photographs, USGS 7.5 minute series quadrangle mapping, a 1964 General Development Plan,

park brochure, construction plans for the Visitor Center and Maintenance Area and Tour Road improvements, and CLR field investigation, were utilized to compile an electronic base map of the park. This map was drawn electronically as an AutoCAD file using a series of layers to represent different landscape characteristics. The drawing was extensively evaluated in the field during a project team visit to the park in late March and early April 2000. Revisions were made to the map based on these evaluations and additional ArcView electronic data of park trails provided by Gary Sullivan.

During the March 2000 site visit, historical architect Lori Jorgensen Unick of BVH met with the JMA team on site to conduct field research for existing conditions documentation of park buildings and structures. Ms. Unick observed and photographed each of the park's buildings and structures, and assessed their condition. Ms. Unick also collected verbal and written information from park administrators regarding building maintenance and planned stabilization work for several of the buildings.

Existing Conditions Documentation

The documentation of existing conditions was developed through cross-referenced narrative, graphic, and photographic materials, organized in accordance with the framework established in National Register Bulletin 30: *Guidelines for Documenting and Evaluating Rural Historic Landscapes* that identifies various landscape characteristics for presenting existing conditions documentation information. The landscape characteristics utilized to describe the Wilson's Creek NB landscape include:

- Spatial Organization
- Responses to Natural Systems and Features
- Management Land Uses
- Circulation Patterns and Features
- Cultural and Natural Vegetation
- Buildings, Structures, and Structural Clusters
- Small-scale Features
- Utilities
- Views and Viewpoints
- Archeological Resources

Field investigations were conducted during the October 1999 and March/April 2000 site visits. During the October 1999 visit, the JMA team, including project historical landscape architect Liz Sargent, historian Benjamin Ford of Rivanna Archaeological Consulting, botanist/ecologist Gerould Wilhelm of CDF, and local botanical consultant Doug Ladd of the Missouri Chapter Nature Conservancy met on site to initiate field investigations. This visit helped to orient the team and provide team members with an overall understanding of the landscape and its components. The second fieldwork visit conducted between March 29 and April 2, 2000 included team members Liz Sargent and Rachel Evans Lloyd of JMA, historical architect Lori Unick of BVH, Gerould Wilhelm and Sarah Utter of CDF, and botanical consultant Doug Ladd of the Nature Conservancy. The team spent the majority of their time in the field, verifying base map information and investigating existing landscape conditions. The condition of inventoried landscape features was also assessed.

JMA subsequently prepared the existing conditions documentation included in Chapter 3 of this report through the compilation of information derived from existing conditions base mapping, field investigations, review of photographs taken in the field, and examination of park planning documents, park files, and other relevant cultural and natural resource documents received from NPS or acquired through research. Documents such as the soil surveys of Christian and Greene Counties proved invaluable in establishing a geographic and geologic context for the park, and understanding local conditions in a way that supported field observation.

As noted earlier, documentation of the park's vegetation by CDF involved evaluation of a floristic inventory provided by the NPS, field survey, and review of published regional floras as a means to calibrate the accuracy of the existing floristic data. From this analysis, CDF developed a list of native flora and the plant communities likely to have been present throughout much of the late Quaternary.

Photographic images of existing conditions were used to consider and illustrate many of the more significant landscape-scale ecological processes currently occurring within the park. CDF compared existing floristic conditions and successional processes with conditions described during the early European settlement period and later to determine the directional changes that have occurred, and are currently occurring, within the park. Aerial photographs taken periodically since 1940 were reviewed to evaluate the impacts and consequences of these changes on the long-term stability of the park's historic artifacts and natural resources. This analysis will ultimately support the development of a resource management plan to further safeguard and steward the significant cultural and natural amenities that comprised Wilson's Creek at the time of the battle.

The existing conditions documentation chapter of the CLR includes photographs of representative landscape features. The photographs are referenced in the text. A documentation notebook containing all existing conditions documentation photographs and a set of maps indicating photographic station points will be provided to NPS at the end of the project to supplement the representative photographic coverage included in this report.

The team also prepared an inventory of existing landscape features based on documentation of the site and an understanding of historic conditions. The inventory was utilized to ensure that each feature was discussed in the text, and served as the basis for condition assessments. The feature condition assessments were made using the categories suggested by the *Cultural Landscapes Inventory Professional Procedures Guide*: Good, Fair, Poor, and Unknown. These categories are defined as follows:

- <u>Good</u>: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions.
- <u>Fair</u>: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of

corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements, will cause the inventory unit to degrade to a poor condition.

- <u>Poor</u>: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.
- <u>Unknown</u>: not enough information is available to make an evaluation.

The condition ratings were annotated to included specific condition-related observations made in the field that help to justify the ratings.

The narrative and photographic documentation of park buildings and structures was prepared by Lori Jorgensen Unick of BVH based upon field investigations and review of photographs taken in the field, park planning documents, and other building investigation reports received from the NPS or acquired through research. Documents such as the "Ray House Historic Structures Report" Part I and II, and the "Architectural Investigation: Ray House, Wilson's Creek National Battlefield" proved to be important in understanding the current character of the Ray House. National Register Determinations of Eligibility and List of Classified Structures reports that have previously been prepared for various park structures were also consulted and proved invaluable in developing descriptions for many of the structures.

The condition assessment of buildings and structures is based upon the definitions provided in the List of Classified Structures User's Manual as follows:

<u>Good</u> :	the structure and significant features are intact, structurally sound, and performing their intended purpose. The structure and significant features need no repair or rehabilitation, but only routine or preventive maintenance.
<u>Fair</u> :	the structure is in fair condition if either of the following conditions is present:
	a) there are early signs of wear, failure, or deterioration in the structure and its features are generally structurally sound and performing their intended purpose; or
	b) there is failure of a significant feature of the structure.
Poor:	the structure is in poor condition if any of the following conditions is present:
	a) the significant features are no longer performing their intended purpose; or
	b) significant feature are missing; or
	c) deterioration or damage affects more than 25% of the structure; or

d) the structure or significant features show signs of imminent failure or breakdown.

<u>Unknown</u>: not enough information is available to make an evaluation.

Evaluation of Significance

Wilson's Creek NB is currently listed in the National Register of Historic Places. The 1976 National Register nomination indicates that the battlefield is nationally significant as the site of the Civil War Battle of Wilson's Creek that occurred on August 10, 1861. The site is significant in the areas of Communications, Military, and Transportation.

This information, as well as the evaluations provided in various Determinations of Eligibility for individual resources located within the park, relevant National Register criteria, and the guidance provided in National Register Bulletins 15 and 30, serve as the basis for the CLR evaluation of significance. The CLR's comprehensive investigation into the history of the Wilson's Creek landscape suggested additional aspects, areas, and periods of potential significance that merit further evaluation, and possible inclusion in a revised National Register nomination. This CLR's supplemental evaluation information was incorporated into the preliminary discussion of significance included in Chapter 5.

Comparative Analysis of Historic and Existing Conditions

In order to better understand the relationship between the existing park landscape and the character of the landscape during the identified periods of significance, JMA prepared a comparative analysis of historic and existing landscape conditions. For the most part, the analysis focused on extant features and their dates of origin. The three primary goals of the development of the comparative analysis were to:

- 1) understand which features survive from the period of significance;
- 2) establish the basis for an integrity assessment; and
- 3) provide an understanding of the similarities and differences between historic and existing conditions that would contribute to the development of a well-grounded treatment plan for the cultural landscape.

Identification of Contributing and Non-Contributing Resources

Through the development of the comparative analysis of historic and existing landscape conditions, three lists were prepared that identified contributing, non-contributing, and missing features. Contributing features were deemed to be those surviving from one of the periods of significance; non-contributing features were those that originated after the last period of significance; and missing features were those that are known or thought to have existed during one of the periods of significance but that are no longer evident except possibly in the archeological record. Conjectural information was indicated as such within the lists. Finally, features for which no date of origin could be determined were also identified.

Assessment of Integrity

The CLR summarizes the site's overall integrity, and then assesses integrity in accordance with the seven aspects—location, design, setting, materials, workmanship, feeling, and association—described in National Register Bulletin 15: *How to Apply the National Register Criteria for Evaluation*. The integrity of the Civil War period landscape was assessed focusing on the four primary aspects of integrity—location, setting, feeling, and association—recommended in National Register Bulletin 40: *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields*.

Treatment Recommendations and Implementation Guidelines

In July 2004, JMA and CDF CLR project personnel were authorized to begin work on Part II of this report. Team members were provided with copies of the park's 2003 GMP and treatment approach information developed at the park by Chief of Resources and Facility Management Gary Sullivan. Due to contract limitations, work on Part II was to be completed by mid-September 2004. An 85% draft of Volume II was submitted in mid-August for review by park and regional personnel. The draft presented the salient components of the GMP preferred treatment alternative as they pertained to the CLR treatment plan, and laid out an overall approach to treatment, as well as a series of resource-specific recommendations. Implementation guidelines were presented to support an understanding of the treatment recommendations and their implications. The work was revised in early September to reflect comments provided by NPS reviewers. Elements of the original scope of work which were not completed due to the compressed time frame included Class "C" cost estimates, and a detailed phasing plan.

Site Historical and Administrative Background

Archeological investigations conducted on site to date indicate that the lands included within Wilson's Creek NB have been occupied by humans for at least 10,000 years. The American Indian peoples who were associated with this landscape during prehistoric periods took advantage of its abundant resources, including varying topography, creeks, springs, stone deposits, and a diversity of flora and fauna, on a temporary or seasonal basis. At least two archeological sites within Wilson's Creek NB document between 8,000 and 9,000 years of at least intermittent occupation.

Following nearly three hundred years of European exploration, and the forced migration of eastern American Indian groups across the Mississippi, the first European-American settlers arrived in the James River vicinity during the first quarter of the nineteenth century. This initial wave of European settlement was short lived once the Delaware and Kickapoo began to enforce their existing treaties with the United States. However, once these tribes signed new treaties with the federal government that effectively removed the last American Indian reservations from southwest Missouri, a second and more permanent wave of emigration began in the 1830s.

By 1836, a road had been laid out between Springfield and Fayetteville, Arkansas. The first emigrants of European descent arrived in the Wilson's Creek vicinity shortly thereafter, settling first on the lands that were best suited to farming—specifically the bottomlands adjacent to Wilson's Creek—and along the main regional thoroughfare leading towards Fayetteville. Settlement continued throughout the 1850s; as the population grew, the land less desirable for agriculture was slowly acquired. Most of the settlers who came to the Wilson's Creek prior to 1861 were farmers who were involved in the production of cash crops such as corn and wheat. Crop farming was supplemented by animal husbandry whereby cows, pigs, and mules were raised for shipment to other regions. In 1860, telegraph wires were strung along the length of the Fayetteville road. After this date it became known locally as the Wire Road.

During August 1861, Confederate and Federal armies maneuvered through the Wilson's Creek vicinity as the two opposing forces probed and tested one another's location and strength. On August 10, 1861, Confederate forces under the command of General Ben McCulloch repelled a surprise attack by Federal forces led by Gen. Nathaniel Lyon, eventually forcing the Union army to retreat to Springfield. Union General Lyon was mortally wounded during the battle and eventually died in the location of some of the heaviest fighting, subsequently referred to as Bloody Hill. General Lyon's body was taken to the Ray House, which overlooked the battlefield, where it remained until the Federal Army could transport it to Springfield. Many of the other casualties of the battle are said to have been buried on site. After the carnage of the six-plus-hour battle, hundreds of Confederate troops were buried along the banks of Wilson's Creek, while Federal troops were laid to rest in mass, unmarked graves including two sinkholes and one well. Soon after the Confederate Army abandoned Wilson's Creek, an informal memorial to General Lyon was established on the spot where he died. The memorial consisted of a pile of fieldstones and river cobbles, many of which had the names of veterans and visitors etched on them. Only 15 months after Lyon's death, the memorial was considered a sacred spot and was well on its way to becoming a relatively large cairn.

Due to the destruction of the natural and cultural landscape during the battle, several Wilson's Creek residents moved away, initiating a general decline in population that lasted for several decades after the Civil War. The discovery of lead and zinc to the north in Brookline in 1875 contributed to a renewed regional interest in mining and led several businessmen to search for deposits within Wilson's Creek. Otherwise, farming continued to be the dominant occupation of residents in the area during the immediate post-bellum period. Wheat and corn remained the main cash crops.

Circulation and transportation systems began to change during the late nineteenth century. Farmers began to petition the county court to change the location of parts of the historic Wire Road. By the early twentieth century, large sections of the Wire Road as it traversed the contemporary park landscape had been entirely abandoned. Another impetus of change was the railroad. In 1907, the Missouri Pacific Railroad extended its line from Springfield to Stone County, Missouri. Speculators purchased land along the proposed path of the railroad. By late 1907, Clarence Howell filed a plat to establish the Town of Wilson Creek, most likely as part of an industrial endeavor that would take advantage of the rail line for shipping. The town became a stop on the Missouri Pacific line, and various industries eventually emerged in the Town of Wilson Creek. These included a lime kiln and a tomato cannery, supported by a post office, general store, and blacksmith shop. By the mid-1920s, however, the town's last industry had left and the population slowly dwindled. The town was formally disincorporated in 1935.

The first veterans' reunion was held at the battlefield in 1883, followed by a second in 1897. In addition to these reunions, as at other Civil War battlefields, there were efforts made to commemorate the military events of August 10, 1861 on site. Throughout the early twentieth century, local and state representatives attempted unsuccessfully to convince the U.S. Congress to establish a national monument or military park at Wilson's Creek. Due to the repeated calls for a formal memorial, the University Club of Springfield erected a granite marker on the spot where General Lyon died in 1928. This replaced the earlier stone cairn.

In 1938, the last reunion of battle veterans took place on the site. Private organizations subsequently took up the commemorative cause. In September 1950, the non-profit Wilson's Creek Battlefield

Foundation was chartered by the Missouri Secretary of State. The purpose of the foundation was to raise money to purchase a 37-acre parcel of land on Bloody Hill that was slated to be sold as part of an estate division. The foundation acquired the land on Bloody Hill in October 1951. Soon afterwards, a steering committee was formed to "plan for and guide" the passage of a bill to establish a national park at Wilson's Creek.

In April 1960, these efforts were rewarded as a bill to establish a national park at Wilson's Creek was signed into law by President Dwight D. Eisenhower. The park enabling legislation dated April 22, 1960, states:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the Secretary of the Interior shall acquire, by gift, purchase, condemnation, or otherwise, the lands (together with any improvements thereon) comprising the Wilson's Creek Battlefield site near Springfield, Missouri, and any other lands adjacent to such site which in his opinion are necessary or desirable to carry out the purposes in this Act. (16 U.S.C.& 430kk [Supp. II])

SEC. 2 (a) The lands acquired under the first section of this Act shall be set aside as a public park for the benefit and enjoyment of the people of the United States, and shall be designated as the Wilson's Creek Battlefield National Park. The National Park Service, under the direction of the Secretary of the Interior, shall administer, protect, and develop the park, subject to the provisions of the Act entitled "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916. (39 Stat. 535).

(b) In order to provide for the proper development and maintenance of the park, the Secretary of the Interior shall construct and maintain therein such roads, trails, markers, buildings, and other improvements, and such facilities for the care and accommodation of visitors, as he may deem necessary. (16 U.S.C. & 430ll [Supp. II].)

SEC. 3. There are hereby authorized to be appropriated such sums, but not more than \$120,000, as may be needed for the acquisition of lands and interests in lands and for the development of the Wilson's Creek Battlefield National Park, of which not more than \$20,000 shall be used for acquisition purposes, and in addition thereto, such sums as may be needed for its administration and maintenance. (16 U.S.C. & 430mm [Supp. II].)¹¹

At the park's dedication, the deed to the 37 acres purchased by the Wilson's Creek Battlefield Foundation was turned over to the federal government. With the aid of the Missouri General Assembly, money was raised over the next decade to purchase additional lands considered significant to the battlefield within both Greene and Christian Counties.

Improvements, including grading and paving, were immediately begun on the informal county road system within the park. Wilson's Creek Battlefield National Park was formally opened to visitors

¹¹ A complete listing of Congressional hearing reports associated with the establishment of Wilson's Creek National Battlefield is included in Laura Hazelwood, Draft "Legislative History of the 1960 Enabling Act of Wilson's Creek National Battlefield and the Amending Act of 1970" (Republic, MO: Wilson's Creek National Battlefield, 1999).

in late 1966. Temporary park facilities that existed at the time included a headquarters and picnic area. By the late 1960s, a native prairie grass restoration program was initiated that was later expanded. An environmental study area was also established in the vicinity of the Town of Wilson Creek.

In December of 1970, a bill signed by President Richard Nixon changed the name of the site to Wilson's Creek NB. In 1972, the last Missouri Pacific train passed through the area, and its tracks were abandoned. Throughout the 1970s, efforts to reestablish native plant communities were continued and expanded. In 1977, a master plan was prepared that provided a concept for the development of a new visitor center and tour road. In May of 1982 the visitor center was dedicated; by September of 1986 the tour road was formally opened to visitors. In 1981, the precursor of the current NPS Prairie Cluster Long-Term Ecological Monitoring Program was established to oversee the restoration of pre-settlement vegetation, particularly prairie communities, at Wilson's Creek and other regional parks. In 2003, the NPS completed a General Management Plan for the park that replaces the 1977 master plan as the guiding tool for management over the next fifteen to twenty years.

Today, Wilson's Creek NB is a popular visitor destination that interprets the events of August 1861 and their associated Civil War context. Visitors are provided with opportunities to learn about the history of the park through interpretive exhibits and trails that provide access to its many important cultural, natural, and historic resources.

Recommendations for Further Research and Investigation

Despite the wealth of information available at the park, and accessed for this study at various regional repositories, there remain additional sources of information that have the potential to support a better understanding of the site through time. The research visit conducted at the Western Historical Manuscript Collection of the Missouri State Historical Society was of limited value, for example, because several promising documents were being held at a non-public location. A second visit to the Western Historical Manuscript Collection in Columbia, Missouri might yield additional data.

Archeological investigations are another area recommended for additional study. During the initial archeological investigations conducted at the park during 1966-67, no attempt was made to locate and identify the historic Edgar House site. An 1876 plat of Township 28, Range 23, within Greene County indicates the presence of a possible residence in the northwest quarter of the southwest quadrant of Section 24, possibly in the same location as the Ray Hampton House that was razed in the late 1960s. It is possible that an intensive survey in this area may turn up evidence of this site that may have been associated with the 1861 battle.

Additionally, it is recommended that the NPS conduct a comprehensive archeological survey of the entire park property to identify as many archeological resources as possible. A greater understanding of the park's archeological resources would enhance knowledge of many periods of the site's history.

Based on evaluation of the park's vegetation and natural resources, hydrology and control of stormwater is of primary concern to any efforts conducted at the park to restore historic conditions. Increasingly, stormwater is traveling overland and emptying directly into the park's creeks and drainageways, taking nutrient-rich soil and possibly archeological artifacts with it. Historically the majority of the water that fell on the land percolated into the soil, supporting native plant

communities as groundwater, and emerging in places as springs and seeps that supported animal populations and residents alike. The current paucity of infiltrated stormwater has contributed to a lowering of the water table, which in turn is affecting local plant and animal populations. Every effort must be made to study the park's watersheds with an eye to increasing and enhancing infiltration of stormwater.

Finally, the National Register nomination for the park should be revisited to determine whether the park is eligible for its commemoration and conservation history. A context study for the park's commemorative period may support an expanded period of significance, and revision of the National Register nomination.

Summary of Findings

Preparation of this CLR has confirmed the significance evaluation included in the 1974 National Register nomination for the park. The nomination indicates that Wilson's Creek NB is nationally significant under Criterion A as the site of the Civil War Battle of Wilson's Creek on August 10, 1861, which had a profound impact on the course of historic events associated with the Civil War history of Missouri. The areas of significance associated with the battlefield are Communications, Military, and Transportation, and the period of significance identified is August 10, 1861.

The nomination points out that more than 17,000 soldiers, representing both the Union and Confederate Armies, were involved in the bitter struggle that occurred over 1800 acres. The Battle of Wilson's Creek was the first major engagement west of the Mississippi River, and the site of the first Union general casualty when Gen. Nathaniel Lyon lost both his life and the battle. Despite the fact that the Union troops were forced to retreat at the end of the battle, they subsequently gained control of the state of Missouri on behalf of the Federal government, and contributed to a strengthening of the Union position in Kentucky. Confederate control of these two states might have led to a different outcome in the Civil War.

Review of the existing National Register nomination by the CLR team has suggested that clarification of two issues is needed. The first involves the geographical area identified as the property within the nomination form. The second involves the inclusion of a 1928 commemorative marker within the list of contributing battlefield resources.

Regarding the issue of the property boundary, the CLR recommends that the nomination be revised to encompass the entire battlefield study area indicated on the Civil War Sites Advisory Commission Study map, which is also consistent with the battlefield landscape delineation developed in 1960 by NPS military historian Ed Bearss.

As noted earlier, the National Register nomination should perhaps be revised to include a commemorative period of significance. In addition, the development of this CLR has suggested that the park possesses significant commemorative associations, which would support the current inclusion of the 1928 commemorative marker on the nomination's list of contributing resources.

While the primary significance of Wilson's Creek NB is undisputedly its association with the August 10, 1861, Civil War Battle of Wilson's Creek, there are also several landscape features located within the park that have been assessed as individually eligible for the National Register. These include: 1) the McElhaney Farm; 2) the County Road bridge; and 3) two stone field walls. The National Register nomination should be revised to include these significant aspects of the site.

Development of this CLR has suggested four additional historic associations that may possess state or local levels of significance. In addition to the already discussed potential commemorative significance of the Lyon Marker and associated twentieth-century battlefield conservation effort, these include:

- archeological resources spanning the Early Archaic period through the first quarter of the twentieth century;
- the John Ray House complex as one of three remaining early settlement dwellings in the Springfield area; and
- the Wire Road, an important early transportation route that was associated with troop movements during the Civil War and was the route of the Butterfield Overland Stage and Mail. Further to the south, the road may have served as a segment of the Cherokee "Trail of Tears."¹²

The periods of significance suggested through the preparation of this CLR are:

- 1) Archaic through Mississippian Periods—ca. 10,000 BP through 1700 AD;
- 2) Civil War Battle of Wilson's Creek—August 10, 1861; and
- 3) Commemoration of the battle and the death of General Lyon—1861–1960.

The periods associated with individually eligible resources are

- Wire Road—1836–1900
- Ray House—1852
- McElhaney Farm Complex—1911
- County Road bridge—1920
- stone field walls—undetermined

The Civil War Sites Advisory Commission's 1992 *Report on the Nation's Civil War Battlefields* lists Wilson's Creek as a Class A battlefield with good integrity, low threats to integrity, and more than 20 percent of core area protected. Based on the work undertaken on behalf of this CLR, the Wilson's Creek NB landscape appears to possess at least a fair degree of integrity based on the existence of landscape features and systems that survive from the Civil War period and continue to facilitate an understanding of the events of the battle. The portion of the site that served as the focus of commemorative activities—Bloody Hill—possesses less integrity, due to a loss of many associated landscape features.

¹² Barry County Genealogical and Historical Society, "The Historic Old Wire Road," June 1, 1996. The assumption that the Wire Road was used by the Cherokee Indians as they were moved west to Oklahoma is derived from the following quote from the cited manuscript: "Built as a supply route for frontier forts, the road was used in late 1837/1838 as the route of the Cherokee Indians through Barry County known as the famous Trail of Tears." Although the Trail of Tears may have followed the Wire Road within Barry County, the county is located to the south of Greene and Christian Counties, and the route would have remained at a distance from the park.

The park retains many, but by no means all, of the features that characterized the rural and agricultural site at the time of the battle. For example, it retains many of the natural resources and systems associated with the battle—Wilson's Creek, Skegg's, Manley, Short's, and McElhaney's Branches, numerous springs, and prominent landforms such as Bloody Hill—as well as open fields that recall an agrarian past. These landscape features were critical factors in determining the military events and strategy that unfolded over the course of the battle. The park's strong rural character, surviving landscape resources, and interpreted agricultural component, support its ability to convey nineteenth-century conditions.

The loss of other primary features, however, including farm complexes, many crop fields and pastured areas, fencing, roads, and the composition of many vegetative communities has diminished the landscape's Civil War period integrity by varying degrees. Post-Civil War additions to the landscape, such as the tour road, changes to the Wire Road and field patterns, overhead electrical transmission lines, and the expansion of wooded areas that block views also serve to diminish site integrity for the Civil War period.

Wilson's Creek NB encompasses the majority of the geographic area associated with the battle. Three discrete areas along the perimeter of the existing park are thought to have played a role in the events of August 10, 1861. These appear to retain a similar degree of integrity to the lands currently included within the park due to the fact that they remain rural and agricultural.

The condition of the majority of the park's vegetative landscape features and systems has been assessed as fair to poor. Much of the land has been in cultivation and the remnants of native vegetation that remain are quite degraded, the exception being certain portions of Manley Woods. All of the remnants have suffered from infrequent fire or from fire suppression. Most of the glade remnants are heavily infested by Eurasian weeds, such as Japanese chess (*Bromus japonicus*). The woodland remnants have endured much grazing, which has contributed to the current infestation of Eurasian weeds, such as multiflora rose. Soil erosion is evident in many of the upland areas, while excessive sedimentation lies in the bottomlands of Wilson Creek. In those areas where the replanting of native bunch grasses is occurring, the soils are absorbing water and erosion has slowed—a matrix is becoming established where native forbs and other organisms have progressively greater opportunities for inhabitancy. Restoration and rehabilitation of landscape natural systems will generally support not only the general health and stability of the landscape systems at Wilson's Creek NB, but will also help to protect artifacts of the battle.

Based upon the park's need to meet current and projected future functional, maintenance, and management goals, rehabilitation is recommended as the overarching approach to resource management at Wilson's Creek NB. Because rehabilitation is defined as "the act or process of making possible a compatible use for a property," this approach will allow for the enhancement of interpretive opportunities, ecological maintenance and restoration, and visitor amenities, among other objectives outlined in the GMP. These will require sensitive alterations to the landscape that are possible only through rehabilitation. Sensitive habitats, biotic resources, and particularly known and potential archeological resources should be treated with great care, however.

In considering the other approaches recognized by the Secretary of the Interior, all three were rejected for specific reasons. Preservation was not considered appropriate for treatment of the Wilson's Creek landscape due to the overly restrictive nature of the approach, which does not accommodate the need for enhanced interpretation and site access identified in the GMP. Restoration and reconstruction were also considered inappropriate because they assume, as a prerequisite, that sufficient documentation exists to accurately portray a lost historic condition. At
this time, it does not appear that there are documentary sources detailed enough to support restoration or reconstruction of the cultural landscape.

The treatment plan for the Wilson's Creek NB CLR provides a vision for the site as a whole as well as resource-specific guidance for individual resources. The CLR's overarching concept for cultural landscape treatment at Wilson's Creek is to balance the goal identified in the GMP—to protect and enhance the battlefield's commemorative and contemplative qualities—with the need to establish contemporary features and activities that support the comfort, enjoyment, and safety of the public. Vegetation and natural resource management, interpretation, and planning for future development and increased visitation are the main focus of the treatment plan, as they are the highest-priority needs identified by the park in its GMP.

First and foremost, rehabilitation and restoration of the natural systems at Wilson's Creek NB are recommended to support preservation of the site's cultural resources and historic integrity. The park's current landscape is the result of years of intensive agriculture, livestock grazing, fire suppression, park use, and site improvement activities. The combination of intensive shading, loss of soil organic matter, and dramatic increases in storm run-off throughout the system has caused serious problems to the natural systems present at Wilson's Creek. The NPS has an unusual opportunity to rehabilitate the landscape and park infrastructure in a sustainable manner that enhances integrity. Interpretation of this effort would also benefit the public. Appropriate vegetation management will support a crucial interpretive goal at the park: enhancement of visual accessibility. Removal of the existing weedy thickets and re-establishment of historic prairie and savanna plant communities will serve to open up views of the battlefields in many key locations. The treatment plan focuses on the rehabilitation of existing vegetation communities—particularly the enhancement of prairie restoration areas to increase biodiversity—and clearing, thinning, and rehabilitating thickets and young woods to more closely approximate historic savanna conditions.

In addition to vegetation and natural resource management, the treatment plan addresses trail and cultural site exhibit development. Coupled with vegetation management that will enhance visual accessibility are recommendations for extensive new trail systems to increase interpretive opportunities within the park. In fact, the treatment plan recommends weaving interpretation of all significant layers of history that have occurred on the site—including American Indian and early settler occupation, and industrial and commemorative uses that occurred after the battle—into the visitor experience. The proposed trail system—conceived as a series of loops initiating along the Loop Road—focuses on recalling historic road traces and routes that were important to the battle events of August 10, 1861. In many cases, the routes of the proposed trails are intended to link proposed interpretive exhibits that portray now-missing features that played a role in the battle. The trails are also intended to lead to interpreted sites and locations that were important to the military tactics of the battle. The recommended trail system expands on existing pedestrian and equestrian trails. In addition, because the GMP indicates a need to relocate the equestrian parking and staging area, the treatment plan suggests a location for a new horse parking and staging area and a new connecting trail that leads horseback riders to existing trails.

Pedestrian circulation is proposed as a series of loop trails with trailheads at parking pull-offs along the Tour Road. The loops are designed to provide access to features of the 1861 cultural landscape and the locations of important events associated with the Battle of Wilson's Creek. Many of the loops incorporate existing pedestrian trails into a larger system, but new trail segments that follow historic roads or road traces are also proposed. Specifically five loop trails comprise the proposed pedestrian system, including:

- Trail 1 begins at the Gibson Oatfield pull-off and follows the route of a former road along a historic fenceline to the mill and house sites, crosses Wilson's Creek, and leads to the Short springbox and Short House site. It affords an opportunity to walk the full length of General Lyon's advance during the Battle of Wilson's Creek.
- Trail 2 includes the existing Ray House and springhouse trail, as well as a new segment leading to the Ray cornfield where the scene of the action in the cornfield can be viewed.
- Trail 3 initiates at pull-off 3 along the Loop Road and incorporates the existing trail leading to the Pulaski Arkansas Battery site, as well as new segments that lead to the C.B. Manley House site and the Confederate campsite along Wilson's Creek. This trail would provide opportunities to interpret the former Town of Wilson Creek.
- Trail 4 arises at parking pull-off 4, travels across the creek to the site of Backoff's battery, and then back across the creek to a new trail segment leading through Sharp's stubble field, to the Wire Road, and the Sharp farmstead site.
- Trail 5 incorporates portions of the existing Bloody Hill trail, and a new segment leading to the Wire Road and Wilson's Creek, the Edwards Cabin and the Guibor's battery site.

Coupled with enhanced visual accessibility resulting from rehabilitation of vegetation communities, and establishment of new interpretive exhibits associated with Civil War era cultural features that are no longer extant, this trail system will provide visitors with an even deeper appreciation for the park's historic significance.



Chapter Two • Site Physical History

CHAPTER TWO

SITE PHYSICAL HISTORY

Introduction

The documentation of the Wilson's Creek National Battlefield (NB) history that follows is organized into nine landscape chronology periods, which are treated as distinct sections within this chapter. The establishment of these periods has been based upon review of available documentation and the dates of known events and physical developments that are thought to have significantly altered the character, land use, or spatial patterns of this landscape. Each major development marks the transition between periods. The nine periods identified as defining the evolution of the Wilson's Creek cultural landscape are:

. . .

Period I:	American Indian Occupation and Settlement, 10,000 BP–1818	
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- Period II: Early European-American Settlement of Greene County and the Springfield Area, ca. 1818–1838
- Period III: European-American Settlement of Wilson's Creek, Agrarian Use and Development, ca. 1838–1861
- Period IV: The Civil War, 1861–1865
- Period V: Post-War Agrarian Use, 1865–ca. 1905
- Period VI: The Railroad Era and the Town of Wilson Creek, ca. 1905–1928
- Period VII: Formal Commemoration of the Wilson's Creek Battlefield, 1928–1960
- Period VIII: Development of Wilson's Creek as a National Park, 1960–1976
- Period IX: National Park Service Development of the Tour Road and Visitor Center, 1976–2002

American Indian Occupation and Settlement, 10,000 BP-1818

See figure 4, Regional Indian Lands and Villages around 1820, and figure 5, Historic Period Plan, 10,000 BP–1818, located at the end of this section; and Appendix A, Pre-settlement Vegetation.

The chronology of human occupation for Missouri and the Mississippi River basin in general is traditionally divided into four broad periods, the PaleoIndian, the Archaic, the Woodland, and the Mississippian.

The earliest evidence for human occupation of the immediate Wilson's Creek vicinity dates to a transitional period between the PaleoIndian and Archaic periods called the Dalton complex, ca. 10,000–9,000 before present (BP). The earliest evidence for human occupation in Missouri, however, dates to the PaleoIndian period, ca. 14,000–10,000 years BP. One of the characteristic artifacts of a varied PaleoIndian tool kit is the lanceolate (spear-like), fluted projectile point. Lanceolate points, including the Clovis and Folsom types, have been found in only a few sites in southwestern Missouri and only at one site in Greene County but have been found elsewhere in association with mastodon remains. This suggests that the earliest occupants of Missouri were nomadic hunters who relied upon big game. While no PaleoIndian points have been found to date within Wilson's Creek NB, this does not necessarily mean that the area was not occupied during the period. Given the broad distribution of Clovis and Folsom points within the Missouri—Mississippi River valley, it is reasonable to assume that intensive archeological investigations may discover evidence for PaleoIndian occupation of the Wilson's Creek area.¹

The Dalton, or transitional period between the PaleoIndian and Archaic periods, is also characterized by large, fluted points that are more pentagonally shaped than the earlier PaleoIndian points. However the Dalton tool-kit also included stone mortars, pestles, scrapers, burins, drills, adzes and bone tools. The Dalton complex coincided with a major climatic shift from cooler and wetter conditions to warmer and drier ones. Dalton sites are found throughout the greater southeast and in two sites within Wilson's Creek NB, 23GR250 and 23GR245. Evidence from these sites suggests that the Dalton people were both hunters and foragers.²

The Archaic period in Missouri, ca. 9,000–3,000 years BP, is generally divided into three subperiods: the Early Archaic, ca. 9,000–7,000 years BP; the Middle Archaic, ca. 7,000–5,000 years BP; and the Late Archaic, ca. 5,000–3,000 years BP. There are important differences between the

¹ Douglas D. Scott, DRAFT "Archeological Overview and Assessment for Wilson's Creek National Battlefield, Greene and Christian Counties, Missouri" (Lincoln, NE: National Park Service, Midwest Archeological Center, 1999), 5-6; Carl H. Chapman and Eleanor F. Chapman, *Indians and Archeology of Missouri* (Columbia, MO: University of Missouri Press, 1983), 25-28.

² Scott, "Archeological Overview and Assessment," 6-7; Chapman and Chapman, *Indians and Archaeology of Missouri*, 30-37; Carl H. Chapman, *The Archaeology of Missouri*, *I* (Columbia, MO: University of Missouri Press, 1975), 95-126; Robert T. Bray, "Inventory and Evaluation of the Archaeological Resources, Wilson's Creek National Battlefield, Republic, Missouri" (Columbia, MO: University of Missouri, 1966); Robert T. Bray, "Inventory and Evaluation of the Archaeological Resources, Wilson's Creek National Battlefield, Missouri" (Columbia, MO: University of Missouri, 1975); Carolyn Helm, "Construction Monitoring of Archaeological Site 23GR250, Wilson's Creek National Battlefield Park, Greene County, Missouri" (Springfield, MO: Center for Archaeological Research, Southwest Missouri State University, 1980); Mark J. Lynott et al., "Archeological Survey and Testing at Wilson's Creek National Battlefield: Tour Road Alternatives A, B and C" (Lincoln, NE: National Park Service, Midwest Archeological Center, 1982).

subperiods but overall the material culture recovered from Archaic period sites reflects change and adaptation to the climate and floral and faunal environments. In some instances, the Early Archaic period has been found to overlap in time with the Dalton complex, but most archeologists agree that the Rice complex of characteristic tools eventually replaced the Dalton complex. Artifacts that are characteristic of the Early Archaic period are small lanceolate and the first stemmed projectile points including the Rice lobed, Rice contracting stemmed, Agate Basin lanceolate, Rice lanceolate and the Graham Cave notched points. Stone scrapers, choppers and adzes are also present at most sites. This evidence suggests that Early Archaic peoples practiced hunting and gathering and were able to exploit a wider range of plant and animal resources than their predecessors.³

Middle Archaic sites are characterized by the presence of a variety of stemmed projectile points such as the Jakie and Table Rock stemmed. In addition, ground adzes and grooved celts also complement Middle Archaic assemblages. During the Middle Archaic period, the climate became much drier and evidence suggests that humans adapted to less favorable environments compared to earlier periods. Humans relied on a diverse array of resources acquired by hunting and trapping small mammals, and foraging for nuts, seeds and other plant materials.⁴

The Late Archaic period is characterized by smaller points including the Table Rock stemmed and Afton corner notched. The Sedalia complex, centered in southern Missouri, had a unique tool set which included lanceolate points, diggers, scrapers and drills. Late Archaic humans adapted to a wider range of ecological zones and may have practiced limited horticulture. Evidence from burials dating to the Late Archaic suggests that these people also believed in an afterlife.⁵ Numerous Archaic period sites are located within Wilson's Creek NB including 23CN76, 23CN78, 23CN79, 23CN81, 23GR236, 23GR245, 23GR250, 23GR431, 23GR632, 23GR636, and 23CN702.⁶

The Woodland period, ca. 3,000–1,100 years BP, is also divided into three subperiods, the Early, Middle and Late Woodland. The Woodland period is generally characterized by the appearance of ceramics and the bow and arrow; in Missouri, it has been named the Prairie—Forest Potter tradition. Within the Ozarks, the James River complex is dominant. Characteristic artifacts include large stemmed points such as the Gary and Langtry, and small triangular points such as the Scallorn in addition to smooth or cord-marked, grit-tempered ceramics. There are few Early and Middle Woodland sites in southwestern Missouri and only several Late Woodland sites. This has largely been attributed to a lack of natural resources that would support a population expansion and increased agricultural production.⁷ Numerous Woodland period sites are located within Wilson's

³ Scott, "Archeological Overview and Assessment," 7-8; Chapman and Chapman, *Indians and Archaeology of Missouri*, 38-48; Chapman, *Archaeology of Missouri*, *I*, 127-157.

⁴ Scott, "Archeological Overview and Assessment," 8; Chapman and Chapman, *Indians and Archaeology of Missouri*, 38-48; Chapman, *Archaeology of Missouri*, *I*, 158-183.

⁵ Scott, "Archeological Overview and Assessment," 8-9; Chapman and Chapman, *Indians and Archaeology of Missouri*, 38-48; Chapman, *Archaeology of Missouri*, *I*, 184-223.

⁶ Helm, "Construction Monitoring of 23GR250," 1980; Lynott et al., "Archeological Survey and Testing," 1982; Susan M. Monk, "Archeological Survey and Testing of the Proposed Tour Road, Wilson's Creek National Battlefield, Missouri" (Lincoln, NE: National Park Service, Midwest Archeological Center, 1985); Jack H. Ray and Susan M. Monk, "Archeological Survey of Tree Removal Zones at Wilson's Creek National Battlefield" (Lincoln, NE: National Park Service, Midwest Archeological Center, 1984); Susan M. Monk, "Archeological Excavations at Eight Sites in Wilson's Creek National Battlefield" (Lincoln, NE: National Park Service, Midwest Archeological Center, 1985).

⁷ Scott, "Archeological Overview and Assessment," 9-10; Chapman and Chapman, *Indians and Archaeology of Missouri*, 49-69.

Creek NB including 23CN76, 23CN702, 23GR237, 23GR245, 23GR250, 23GR632, 23GR636, and 23GR700.⁸

Mississippian period sites, ca. 1,100–300 years BP, are also divided into three subperiods, the Early, Middle and Late Mississippian. The Mississippian period is representative of complex sociopolitical organization which is reflected in the physical location and layout of larger agricultural villages with civic-ceremonial centers. Within southwestern Missouri it is known as the Late James River complex and has been defined by Douthit as the 'village-farmer tradition.' Characteristic artifact types include shell-tempered ceramics, side-notched, triangular and ovate points, Scallorn points, and milling stones.⁹ Only one site, 23GR245, that was likely occupied during the Mississippian period has been identified within Wilson's Creek NB.¹⁰

The archeological data recovered from sites within Wilson's Creek NB suggest that the property was occupied predominantly during the Archaic and Woodland periods, ca. 9,000–1,100 years BP. Few Dalton complex or Mississippian period sites have been located within park boundaries, but this is entirely consistent with wider southwestern Missouri. Of the Archaic and Woodland period sites identified, evidence suggests that many of them may have been used as temporary camps or lithic reduction centers. Based on their location adjacent to important natural resources, a small number of sites appear to have been intermittently yet repeatedly utilized over thousands of years.¹¹

The earliest contact that American Indians in Missouri may have had with European explorers was in the sixteenth century. In 1540, Hernando de Soto traveled up the Arkansas River into southeastern Missouri. Several historians have attributed de Soto's visit and the subsequent introduction of European diseases to the slow decline of large settlements and the loss of social and political stability reflected in later ethnographies and the archeological record. De Soto may have encountered the Oneonta, located in central Missouri and heavily influenced by the Cahokia cultural tradition. By 1700, evidence from archeological sites shows that European, and particularly French, material goods proliferated throughout prehistoric Missouri settlements. On Osage sites in particular, European goods often outnumbered native material culture. This suggests that throughout the seventeenth century, independent French traders were successful in pursuing a lucrative fur trade with American Indians west of the Mississippi, and in the process circulating desirable European manufactured goods.¹²

The historic period in Missouri may be defined as beginning from approximately the last quarter of the seventeenth century, when Frenchmen Louis Jolliet and Father Jacques Marquette 'discovered' the Mississippi River in 1673. The French presence became more permanent beginning in 1723, with the establishment of Fort Orleans, west of St. Louis, that initiated an active and continuous fur trade between the French and the Missouri and Osage tribes. By the late eighteenth century, the French were also traveling into southwestern Missouri to search for minerals, particularly gold and silver.¹³

⁸ Helm, "Construction Monitoring of 23GR250," 1980; Lynott et al., "Archeological Survey and Testing," 1982; Monk, "Archeological Survey and Testing of the Proposed Tour Road," 1985; Ray and Monk, "Archeological Survey of Tree Removal Zones," 1984; Monk, "Archeological Excavations at Eight Sites," 1985.

⁹ Scott, "Archeological Overview and Assessment," 10-11; Chapman and Chapman, *Indians and Archaeology of Missouri*, 71-89; Mary Lee Douthit, "Final Report on Archaeological Investigations of Sites along the James River Interceptor Sewer, City of Springfield, Greene County, Missouri" (Springfield, MO: Center for Archaeological Research, Southwest Missouri State University, 1981).

¹⁰ Monk, "Archeological Excavations at Eight Sites," 1985.

¹¹ Scott, "Archeological Overview and Assessment," 7, 10.

¹² Chapman and Chapman, *Indians and Archeology*, 90-104.

¹³ Chapman and Chapman, *Indians and Archeology*, 99, 101-102.

The Missouri were closely related to the Iowa, Oto, and Winnebago linguistically and are considered by scholars to be related to the proto-historic Oneonta culture. The Missouri and Osage were present in 1673 when Jolliet and Marquette heard about them from other tribes. However, by 1763 the Missouri had moved out of the area settling to the north in what would become the state of Nebraska. Archeologists believe that the Osage may have descended from the Ouapaw, a protohistoric culture who lived near the mouth of the Missouri River. Like the Missouri, evidence from archeological sites also suggests that Osage material culture bears a strong resemblance to the Oneonta cultural tradition. After the departure of the Missouri, the Osage remained the dominant tribe in western and southwestern Missouri until 1789 when the Spanish moved the Delaware and Shawnee tribes into the region to act as a buffer between their interests and the Osage. In 1806, the Osage are recorded as living in three villages, two in Vernon County, Missouri, approximately fifty miles from Wilson's Creek NB, and one near Claremont, Oklahoma. By 1808, the Osage signed a treaty with the U.S. Government relinquishing their claims to eastern and central parts of Missouri. The displacement of the Delaware and Shawnee to Missouri eventually forced the Osage to move west to Kansas and Oklahoma. By 1825 they had ceded all their lands in Missouri to the United States. By the end of the second decade of the nineteenth century, the Delaware, Shawnee, and Kickapoo were given reservations in southwestern Missouri by the U.S. Government. During this period they established several villages along the James and White Rivers. A Delaware village was built approximately ten miles southwest of the Springfield area at the junction of Wilson's Creek and the James River shortly after 1818, and a Kickapoo village was built in the vicinity of Springfield shortly after 1819. In 1829 and 1832, however, each of these tribes signed treaties which forced them to leave their reservations. By the early 1830s, settlement of southwestern Missouri was 'opened up' to western migrating European Americans.¹⁴

While little is known about the character of the landscape prior to settlement by European Americans in the 1830s, including routes of travel, the nature of settlements, agricultural practices and other types of land uses, it has been important to this study to develop a theoretical model of the nature of pre-settlement vegetation and plant communities. The following pages indicate the types of information and methodology used to conceptualize pre-settlement vegetation, and the resulting understanding of the communities that most likely existed prior to the 1830s.

Pre-Settlement Vegetation and Plant Communities

The "pre-settlement vegetation" described below is a synopsis of the vegetational assemblages that likely existed at Wilson's Creek at the time when the cultural land use practices of the American Indians were abandoned and replaced by those of European settlers.¹⁵ The discussion that follows touches on the following topics:

- general descriptions of the local geology and topography;
- more detailed analyses of the original land survey data for Wilson's Creek NB and its immediate surroundings;

¹⁴ Chapman and Chapman, *Indians and Archeology*, 90-117; Scott, "Archeological Overview and Assessment," 11; R.I. Holcombe, *History of Greene County, Missouri* (St. Louis: Western Historical Company, 1883), 179-182, 721. Holcombe notes that there were several Osage disturbances during 1836–37 in which settlers encouraged Osage tribes located southwest of Springfield to remove themselves from the state. There is some question, however, of whether the village mentioned was a permanent settlement, or, more likely, composed of temporary hunting camps. ¹⁵ The analysis presented below was based on the substance and behavior of the vegetation that is known to be

The analysis presented below was based on the substance and behavior of the vegetation that is known to be native to the region in the post-Columbian era for which there is documentation.

- narrative conceptualization of the general character of the pre-settlement landscape and its vegetation;
- mapping indicating the conceptualization of the site's pre-settlement natural communities based on a synthesis of the geology, soils, original land survey, present day vegetation, physiography, and vegetational data available for this and other sites located on the Springfield Plateau.

The pre-settlement landscape of Wilson's Creek NB and its environs appears to have been largely characterized by scattered timber—open grown deciduous hardwood trees—comprising a community often referred to as savanna. These savanna areas were at the edge of the main expanse of the Osage Plains tallgrass prairie, and existed in a complex array with tallgrass prairie on all sides. The prairie influence, augmented through the effects of annual autumnal fires set by the American Indians, suffused all habitats in the landscape.¹⁶ The savanna lands, even in more moist and fertile habitats, were largely open, with no understory or an understory dominated by hazel in the more fertile habitats. Tree composition on the uplands was dominated by blackjack oak accompanied by black and post oaks. Average tree diameter was apparently relatively small, less than fourteen inches, and calculations of tree density based on distances between witness trees reveals densities of about ten to eleven trees per acre. Glades and associated open limestoneinfluenced sparse trees were probably more common at the site than previously reported, and the riparian influence in smaller order and intermittent waterways was likely less extensive than previously thought, so that the middle and upper reaches of small upland waterways were compositionally and structurally similar to the surrounding cherty uplands that also were characterized by open grown hardwood trees.

Geology & Topography

Elevations at Wilson's Creek NB range from 1080 to 1260 feet above mean sea level, which results in a gradient differential of about 180 feet. The topography is characteristic of the Springfield Plateau section of the Ozark Ecoregion, with rolling moderate relief augmented by occasional bluff exposures and steep slopes along major drainages. Wilson's Creek runs north to south through the heart of the park and creates a central valley with numerous smaller tributaries that run from the east and west into Wilson's Creek.

Bedrock geology for most of the area is Burlington and Keokuk limestones. These Mississippianaged substrates are thinly bedded and characterized by an abundance of chert in some layers. The broad floodplain of Wilson's Creek, a narrow band bordering McElhaney Branch, and a narrow zone along the lower one-third mile of Skegg's Branch (also known in the past as Shuyler, Schuler, and Schuyler Creek), are developed in alluvial sediments. A narrow bank that borders either side of the floodplain of Wilson's Creek, as well as some of its tributaries, including the upper reaches of Skegg's Branch, are developed in the Elsey formation. This Mississippian-aged rock is typified by thin beds of chert and limestone. Major soil types and their vegetative and topographic affinities are enumerated in the table of pre-settlement vegetation information included in Appendix A.

¹⁶ Douglas M. Ladd, "Reexamination of the Role of Fire in Missouri Oak Woodlands," reprinted from *Proceedings* of the Oak Woods Management Workshop (Charleston, IL: Eastern Illinois University, 1991): 67-80.

Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I

Land Survey Data

Attempts to discern the pre-settlement vegetation of Wilson's Creek NB and its surroundings are obscured by nearly two centuries of European-American settlement activity. Nonetheless, information about the pre-settlement natural communities is vitally important in the development of an understanding of the cultural context of the landscape and its role in shaping human history, both leading up to the battle and at the time of the battle itself. A clear understanding of the vegetation and its associated plant communities is crucial in the attempt to apply stewardship protocols that will sustain the ecological integrity of the site and support the educational and interpretive mission of the National Park Service (NPS).

In his 1986 "Plan for the Restoration of the Historic Vegetation" for Wilson's Creek NB, Greg Gremaud analyzed Government Land Office (GLO) Survey notes from 1835 and provided a good account of the pre-settlement vegetation of the site. In this account, Gremaud noted and documented the open character of the savanna throughout the landscape, including many of the bottomland habitats. While useful and quite insightful, this analysis provides a broad view of pre-settlement natural communities, but is not specific enough to support the clear understanding of the plant communities that is needed for this study. Because the information is closely focused on the battlefield, some larger patterns, which are relevant to an understanding of the area's pre-settlement vegetation, are not evident. Although not of great concern, the Gremaud report also improperly calculates GLO data for tree distances from survey points as triangulated vector data, rather than the distance/azimuth data that is actually in the notes. For example, in the GLO notes, the witness tree location data are provided by citing an azimuth and distance such as "N37E32," which should be interpreted as a distance of thirty-two links along an azimuth thirty-seven degrees east and north. Gremaud mistakenly interprets this as vector data, inferring it to mean thirty-seven links north and thirty-two links east. Despite this error, the resulting calculations are insignificantly at variance with the results determined by the CLR team.

Discussion of Pre-settlement Vegetational Assemblages using GLO Notes

A detailed analysis of the 1835 GLO plat maps for the four townships that contain or border the site, and of the general land survey notes for the same area, reveals several important generalities that support an understanding of pre-settlement vegetation. These are discussed below.

1. Wilson's Creek NB is embedded within a prairie landscape. As shown by Schroeder in his 1981 paper "Pre-settlement Prairie of Missouri," the site lies at the western edge of the open woodlands that characterized much of the Ozark Highlands, and is embedded within a spatially complex transition zone between a landscape dominated by great expanses of tallgrass prairie to the west and an open woodland system with small prairie inclusions to the east. Wilson's Creek NB also lies just south of an extensive outlying area of the essentially continuous tallgrass prairies that begin a mere twenty miles to the west. This prairie area was more than ten miles wide from east to west, with two north-south lobes exceeding fifteen and twenty miles, respectively. As shown by the plat maps, less than a mile to the north of the site, and arching to the west, was the Grand Prairie. Three miles to the northeast was another massive lobe of prairie referred to as the Kickapoo Prairie. Three miles east of the park was a smaller prairie of about 200 acres. Another prairie of about 500 acres lay five miles to the southeast. The extent of the prairie immediately to the north and west, and the presence of

significant prairies to the east and south, clearly demonstrates the pervasive influence of prairies and their biota in the regional landscape.

- 2. Current interpretation of the GLO notes and judgements about pre-settlement vegetation may be subtly biased because the notes were written by individuals who experienced only the contemporary landscape. As discussed by Doug Ladd in his 1991 "Reexamination of the Role of Fire in Missouri Oak Woodlands," this sometimes leads to an artificial dichotomy—trees versus prairie—as far as the overall view of vegetation types is presented. In actuality, even in our savanna landscapes in the Interior Highlands there is an open character and a pervasive graminoid (grass-like) component that reveals prairie biota and ecological processes.¹⁷ Thus, the interpretation of savanna landscapes must not be biased by our understanding of the structure and composition of contemporary woodlands. The frequent mention of a lack of undergrowth, of trees at several witness points in treed portions of the landscape, and of generally sparse numbers of trees all reinforce the open, prairie-like character predominating throughout this region, even in its more wooded phases. The presence of several quarters without available witness trees suggests that in some cases the surveyors traveled more than 400 links (264 feet), and on one occasion 500 links (330 feet), to secure witness trees. Presumably having "no trees for witness within a reasonable distance" meant that the nearest tree was more than 330 feet distant-an imputed density of less than one tree per two acres—and this in a landscape described as "timbered" or wooded.
- 3. Ladd also discusses in his 1991 paper the long and ongoing history of occupancy and impacts from native peoples on the pre-settlement landscape. This is reinforced by the GLO survey notes, which map and record an abandoned Delaware village along Wilson's Creek about a mile south of the site. Surveyor A.F. Garrison noted:

This antique and celebrated village is now in ruins a few dilapidated cabins only mark the spot of this once populous village so well known in the legendary history of the Delaware tribe of Indians by whom it was formerly inhabited.18

Although a recent example of native peoples' influence on the land, this village had been established for long enough and was sufficiently vital to result in a pathway being mapped on the plat maps and mentioned in the notes as the "road from Fayetteville Arkansas to the Delaware Village." Any evaluation of pre-settlement vegetation must assume the presence and influence of humans in the landscape for thousands of years prior to European inhabitation of the New World. In this case, the vegetation of the area was shaped by millennia of frequent, largely Indian-set fires, which were instrumental in the creation and maintenance of the grassland character of the landscape.

- 4. By the time of the 1835 survey, fields, cabins, gristmills, a few roads, and other sundry signs of European settlement were well scattered across the landscape. Thus, by the time of the battle, the landscape had been subjected to nearly three decades of post-European-settlement anthropogenics.
- 5. In the southeastern quadrant of Section 24 T28N R22W, the surveyor noted and mapped "a remarkably fine and thick grove of chinkapin oaks." This is an interesting anecdote,

 ¹⁷ The Interior Highlands is a broader region that includes within it the Ozark Highlands.
¹⁸ U.S. General Land Office Survey, "Field Notes for Green and Christian Counties, Missouri" (n.p., 1835).

suggesting that most of the references to trees described neither dense nor well-developed woodlands.

6. Despite the widespread presence of open limestone glades at the site, as evidenced by the abundant substrates of the Gasconade/Rock Outcrop complex and the many conservative glade floristic elements at the site today, the surveyors made no mention of glades. This strongly suggests that the pre-settlement landscape was sufficiently open even in the more fertile and moist sites so as to structurally resemble the glades, thus rendering the glades not especially different in appearance or deserving of mention. This phenomenon has been observed at a few sites in southwestern Missouri where glades and associated cherty savannas or woodlands have a long history of regular fires; the glades and cherty woodlands, while markedly different in floristic composition, are not terribly divergent from a structural perspective. This structural congruence towards open grasslands with scattered trees in patchy arrays, which vary from completely open to more than 50 percent closed, was probably a common feature in the Interior Highlands, particularly on the Springfield Plateau given the abundance of early travelers' comments and the uniformity of land surveyors' comment on the matter.

Based on this data, field observations, and experience in similar landscapes elsewhere on the Springfield Plateau, the pre-settlement vegetation of Wilson's Creek NB can be divided into seven general and broadly overlapping vegetation classes. These are shown on the vegetation map and accompanying table located in Appendix A. Three of these classes are phases of an upland cherty acid soil woodland system. At the harshest extreme is a barrens-like xeric ridge-top system with fragipan-induced hydrological characteristics on the broader ridge tops.¹⁹ This system is characterized by sparsely disposed, relatively small trees dominated by blackjack oak. A less environmentally harsh phase is the typical cherty soil woodlands that typify middle and upper slopes through much of the western Ozarks, with pervasive, but nowhere dense, groves of oak trees that consist typically of black, blackjack, and post oaks. The most fertile and prairie-like phase of this system is the dry-mesic woodlands on gentle expansive slopes with little dissection. Many of the soils in this phase are somewhat mollic, indicating their suitability for a well-developed, prairie-like ground layer. Tree density in this soil type is variable, but often more diffuse than in up-slope sites because of increased fine fuel productivity and concomitant fire intensity.

More mesic lower slopes and talus areas, especially with northern and eastern exposures, are characterized by a dry-mesic to mesic woodland typified by less acid soils with higher base saturation. These habitats were probably the most forest-like areas of the site, although still more open than contemporary notions of forest vegetation. Bottomlands and terraces were inhabited by a diversity of trees in a more characteristically "woodland" structure. Abundant limestone outcrops and associated shallow soils supported abundant glades, often in a spatially complex pattern with open carbonate woodlands characterized by species such as chinkapin oak. The only area mapped as prairie in the original land survey was a small area in the northeastern quarter of Section 26 T28N R23W. This was a gently sloping to level area along the west side of Wilson's Creek, and probably supported a prairie that graded from mesic to riparian. No trace of this system remains, and subsequent hydrological changes have severely altered the habitat.

The hydrological cycle was apparently more stable and attenuated. Most of the floodplains in the area are described as "not subject to overflow," although in one bottomland area to the south along the James River the land was said to overflow to a depth of "18 inches." A stark indication of the

¹⁹ A fragipan is a shallow, hard earth basin, or an extremely hard soil layer that often is clayey and does not drain easily.

extent of post-settlement hydrological change is that all of the major creeks within the site are now mapped as "flood hazard areas."²⁰ Wilson's Creek is described in the GLO survey notes as mostly having a gentle current and in various places either a mud or gravel bottom, and there are numerous references to springs in the area. Just over a mile north of the present site boundary, Wilson's Creek is described on May 13, 1835, as follows: "This creek at this place is dry the current running some 30 or 40 feet below the surface of the rock which covers the channel."

The majority of the soils in the wooded portions of the area are described as "flinty," "2nd quality," and "fit for cultivation." A few of the areas mapped as fertile phase upland "timbers" were described as "first rate soils." Interestingly, many survey points in the prairie to the north were described as "flinty soil 2nd quality fit for cultivation," although parts of the Grand Prairie were described as "hardly fit for cultivation." Some parts of the prairie were characterized as having "first quality soil."

Undergrowth is not mentioned, or the land is described as having "no undergrowth" at a majority of survey points in and around the site. A substantial number of points, including a few in the prairie to the north, are described as having hazel undergrowth. Tree density is described as "thinly timbered" over most of the area, with a few areas "very thinly timbered" or the trees "small and scattering." A couple of bottomland survey points were described as "well timbered," and several uplands and lower slopes were said to have "tolerable good timber." A few upland points were said to have "a few scattering trees." Overall, the uniformity of the comments is compelling: blackjack oak, with black oak and white oak, are the vast majority of the trees in the uplands. Even in the mesic bottoms, black oak was apparently a commonly occurring tree along with sugar maple, sycamore, and black walnut.

Numerical analysis of the witness tree data was conducted for the site and for an area a half mile to one mile wide surrounding the border of the site. This was compared with tree data from the woodlands for an additional two miles to the south to see if increasing distance from the Grand and Kickapoo Prairies resulted in more dense woodlands or different size, class, or composition. No significant differences were found, and the composite data are presented in the table shown in Appendix B. This expanded data set essentially corroborates the conclusion drawn by Gremaud in 1986, but includes more variability in size classes and distances.

Pre-settlement Plant Communities

As discussed in Chapter 1, the presettlement plant communities were derived from an analysis of all of the native plant species known to inhabit the pockets of remnant landscape at Wilson's Creek National Battlefield. The plant communities described below each share species with the other, but can best be envisioned by an observed aggregation of species that are more or less faithful to a particular plant community. These plant communities should not be confused with the vegetational assemblages described above, as one may be able to differentiate two or more "plant communities" within any one pre-settlement assemblage.

Springs: Springs were common along the drainage basin of Wilson's Creek. They tended to form along the lower slopes of primary dissections, where vadose waters issued forth, bedding planes were exposed, karst channels surfaced, or significantly different texture changes occurred in subsurface material.²¹ The spring waters emerged 365 days a year, and had a constant chemistry

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 ²⁰ Springfield Community Development, 1989.
²¹ These are underground waters above the water table.

and temperature—typically the average daily temperature over the course of a year. Prior to settlement, these springs supplied the base flow to Wilson's Creek, which was a relatively stable aquatic resource. Most of the precipitation that fell in the watershed, even during the most violent rain events, percolated into the ground.²² Precipitation that was not transpired supplied the vadose waters with a constant hydrostatic head for the springs. Surface water runoff was rare prior to agricultural production; therefore, the enormous floods characteristic of Wilson's Creek today were all but unknown. The plant communities around these springs represented the major "wetland" component of the Wilson's Creek watershed, which otherwise was quite well drained and with positive gradients. Twenty-nine species of plants appear to have direct associations to the spring-related or discharge wetland habitats. The more conservative of these species include willow aster (*Aster praealtus*), pale sedge (*Carex granularis*), wild madder (*Galium obtusum*), prairie blazing-star (*Liatris pycnostachya*), and water speedwell (*Veronica comosa*).²³

Banks, terraces, and bars: Associated with the Wilson's Creek flowage were the immediate banks, gravel bars, and low alluvial terraces characterized by relatively well watered and more or less well drained alluvium or gravel. The terraces were largely meadows of low to mesic prairie interspersed with open-grown trees. Approximately 118 species of the known flora were most likely to have grown in the low-lying ground along the creek prior to European settlement. The banks were for the most part wooded, with open grown specimens of boxelder (Acer negundo), silver maple (A. saccharinum), sugarberry (Celtis laevigata), hackbery (C. occidentalis), green ash (Fraxinus pennsylvanica), honey locust (Gleditsia triacanthos), black walnut (Juglans nigra), sycamore (*Platanus occidentalis*), bur oak (*Quercus macrocarpa*), black willow (*Salix nigra*), and American elm (Ulmus americana). Some of the more conservative species included raccoon grape (Ampelopsis cordata), green-headed fox sedge (Carex conjuncta), awned graceful sedge (C. davisii), field oval sedge (C. molesta), Maryland senna (Cassia marilandica), tall thistle (Cirsium altissimum), blue waxweed (Cuphea petiolata), sandbar lovegrass (Eragrostis frankii), purpleheaded sneezeweed (Helenium flexuosum), spotted St. John's Wort (Hypericum punctatum), round-fruited St. John's Wort (H. sphaerocarpum), fog fruit (Lippia lanceolata), four-rowed bead grass (Paspalum pubiflorum), clearweed (Pilea pumila), marsh smartweed (Polygonum coccineum), prairie rose (Rosa setigera), and bur-cucumber (Sicyos angulatus).

High Terraces: Along Wilson's Creek in the pre-settlement period was a high terrace of colluvium and alluvium originating when the creek had a higher flow, or a larger watershed. These terraces were fitted between the alluvial terraces and the ambient high ground talus slopes. They were well watered, with oxidized soils, and the existing savannas were likely characterized by Ohio buckeye (*Aesculus glabra*), hackberry, redbud (*Cercis canadensis*), little-hip hawthorn (*Crataegus spathulata*), white ash (*Fraxinus americana*), green ash, black walnut, sycamore, Iowa crab (*Pyrus ioensis*), bur oak, American elm, and slippery elm (*Ulmus rubra*). One hundred twenty-eight native species from the known flora appear to have been associated with this community. The more conservative ground cover species include: smooth-sheathed lake sedge (*Carex laevivaginata*), leatherflower (*Clematis pitcheri*), hairy phacelia (*Phacelia hirsuta*), garden phlox (*Phlox paniculata*), wing-stem (*Verbesina alternifolia*), Missouri ironweed (*Vernonia missurica*), and winter grape (*Vitis cinerea*).

Mesophytic savannas: These savannas were characterized by open-grown trees that tolerated or even thrived on carbonate-rich, north or east facing slopes, particularly those on the primary dissections and elevations along Wilson's Creek. Although well drained, such slopes are relatively

²² J.E. Weaver and W. Noll, "Measurement of Run-off and Soil Erosion by a Single Investigator," *Ecology* 16 (1988): 1-12.

²³ The term "conservative" as it applies to native plant species in this report means those that are known to exhibit strong affinities for certain plant associations, soils, and geography.

sheltered from direct, intense solar radiation and from dry, desiccating western and southern winds. These savannas had a relatively rich flora in general, but their integrity was underlain fundamentally by sedge species, particularly those in the Montanae section such as blunt-scaled oak sedge (Carex artitecta) and early oak sedge (C. umbellata). These sedge species, like the grasses of the prairie, formed two essential matrices in the system—above and below ground. On the one hand, soil organic matter was sustained by the fibrous root system, and on the other, the aboveground fine fuel produced by their leaves influenced the fires that the Indians set seasonally in the fall. The woody flora was the richest of the woodland communities at Wilson's Creek NB, and included sugar maple (Acer saccharum), Ohio buckeye, shagbark hickory (Carya ovata), hackberry, redbud, little-hip hawthorn, white ash (Fraxinus americana), blue ash (F. quadrangulata), black walnut, red mulberry (Morus rubra), white oak (Quercus alba), chinkapin oak (Q. prinoides var. acuminata), red oak (Q. rubra), post oak (Q. stellata), black oak (Q. velutina), American linden (*Tilia americana*), and American elm. The ground cover was lush, consisting of grasses, sedges, and numerous forbs, the more conservative of which included ear-leaved brome (Bromus purgans), few-flowered gray sedge (*Carex oligocarpa*), pointed tick-trefoil (*Desmodium glutinosum*), purple coneflower (*Echinacea purpurea*), white trout lily (*Erythronium albidum*), purple joe-pye-weed (Eupatorium purpureum), wild licorice (Galium circaezans), pale gentian (Gentiana flavida), wild geranium (Geranium maculatum), Seneca snakeroot (Polygala senega), smooth ruellia (Ruellia strepens), hairy meadow parsnip (Thaspium barbinode), and Culver's root (Veronicastrum virginicum).

Cherty Savannas: The cherty savannas tended to occur on the southern and western slopes on soils that were too deep for glade formation. Although there is a lot of chert residuum overlying these soils, the underlayment is quite rich in carbonate. Consequently, the cherty savannas of Wilson's Creek are quite different from those on the more leached terrains that are not so suffused with limestone near the surface. The cherty savannas blended into both the glades and into the mesophytic savannas, making it likely that significant tracts at Wilson's Creek were ambiguous as to a definable vegetation community composition. Like the mesophytic savannas, the cherty savannas were characterized by the ground layer of sedges. The trees were widely spaced and opengrown and included smooth serviceberry (Amelanchier arborea), pignut hickory (Carya glabra), shagbark hickory, black hickory (*Carya texana*), mockernut hickory (*Carya tomentosa*), white oak, shingle oak (Quercus imbricaria), blackjack oak (Quercus marilandica), post oak, black oak, and sassafras (Sassafras albidum). It is unlikely that Eastern redcedar (Juniperus virginiana), now common throughout, was native to the area. There was a rich groundcover flora, including lead plant (Amorpha canescens), rue anemone (Anemonella thalictroides), pussy-toes (Antennaria neglecta), purple milkweed (Asclepias purpurascens), sky-blue aster (Aster azureus), heath aster (Aster ericoides), purple daisy (Aster patens), prairie aster (Aster turbinellus), white wild indigo (Baptisia *leucantha*), cream wild indigo (*Baptisia leucophaea*), Texas berlandiera (*Berlandiera texana*), longscaled green sedge (*Carex bushii*), sand bracted sedge (*Carex muhlenbergii*), New Jersey Tea (*Ceanothus americanus*), butterfly pea (*Clitoria mariana*), prairie coreopsis (*Coreopsis palmata*), poverty oat grass (Danthonia spicata), hairy tick trefoil (Desmodium ciliare), small-leaved tick trefoil (Desmodium marilandicum), round-leaved tick trefoil (Desmodium rotundifolium), slender crabgrass (Digitaria filiformis), rattlesnake master (Eryngium yuccifolium), Arkansas bedstraw (Galium arkansana), hairy bedstraw (Galium pilosum), downy gentian (Gentiana puberulenta), hairy hawkweed (Hieracium gronovii), long-leaved bluets (Houstonia longifolia), small bluets (Houstonia pusilla), starved panic grass (Panicum depauperatum), forked panic grass (Panicum dichotomum), woolly panic grass (Panicum lanuginosum var. implicatum), wild quinine (Parthenium integrifolium), downy lens grass (Paspalum ciliatifolium var. muhlenbergii), wood betony (*Pedicularis canadensis*), pale beardtongue (*Penstemon pallidus*), pink milkwort (*Polygala* incarnata), rough white lettuce (Prenanthes aspera), early buttercup (Ranunculus fascicularis),

royal catchfly (*Silene regia*), prairie wedge grass (*Sphenopholis obtusata*), goat's rue (*Tephrosia virginiana*), and buffalo clover (*Trifolium reflexum*).

Glades: The limestone glades were probably more extensive at Wilson's Creek than current delineations suggest. The glade community appeared in areas where limestone was near the surface on southern, western, and northwest-facing slopes. Post-settlement soil movement, windblown agricultural soils, shading, fire suppression, and general habitat disruptions have obscured the extent and nature of glades at Wilson's Creek. Although currently the glades are characterized by Eastern redcedar, it is probable this species was not present at the time of settlement. The glades were completely open, or beset with the occasional tree of blue ash, chinkapin oak, or post oak. Conservative glade species include Ozark blue-star (Amsonia illustris), slender sandwort (Arenaria patula), stiff aster (Aster ptarmicoides), Mexican milk vetch (Astragalus mexicanus), blue wild indigo (Baptisia australis), golden aster (Chrysopsis villosa var. angustifolia), wild blue larkspur (Delphinium carolinianum), pale purple coneflower (Echinacea pallida), narrow-leaved bladderpod (Lesquerella filiformis), hoary puccoon (Lithospermum canescens), Missouri evening primrose (Oenothera missouriensis), evening primrose (Oenothera triloba), adder's tongue (Ophioglossum engelmannii), soft-leaved panic grass (Panicum malacolphyllum), hairy wild quinine (Parthenium hispidum), purple cliff brake (Pellaea atropurpurea), white prairie clover (Petalostemum candidum), purple prairie clover (Petalostemum purpureum), prairie parsley (Polytaenia nuttallii), low calamint (Satureja arkansana), tall nutgrass (Scleria triglomerata), fame flower (Talinum calycinum), threadleaf (Thelesperma trifidum), Tharp's spiderwort (Tradescantia tharpii), and Ozark corn salad (Valerianella ozarkana).

Cultural: Cultural plant communities consist of species introduced by humans by accident or design. For early settlement periods, these are sometimes referred to as "camp followers." Such species are well adapted to the highly unstable soils generated by concentrated foot traffic and cultivation, and to chronically high levels of nitrogen. Such species, which probably had their origins along streams in ungulate wallows and hanging areas around burrows, are now associated with and adapted to human cultural contexts. In the Wilson's Creek area, these species probably included three-seeded mercury (*Acalypha virginica*), common ragweed (*Ambrosia artemisiifolia*), common milkweed (*Asclepias syriaca*), wild chervil (*Chaerophyllum procumbens*), American bindweed (*Convolvulus sepium*), sand croton (*Croton glandulosus* var. *septentrionalis*), daisy fleabane (*Erigeron annuus*), horseweed (*Erigeron canadensis*), biennial gaura (*Gaura biennis*), nimble Will (*Muhlenbergia schreberi*), Evening primrose (*Oenothera biennis*), old witch grass (*Panicum capillare*), Virginia rock cress (*Sibara virginica*), horse nettle (*Solanum carolinense*), and Ozark corn salad (*Valerianella radiata*).

Coinciding with the seven general vegetation types, seven plant communities can be discerned. It will be these plant communities and an understanding of their fundamental nature and relationships to the vegetation types that will underlie the development of restoration targets.



American Indian Occupation and Settlement, 10,000 BP–1818

Figure 4. Regional Indian lands and villages around 1820.

Early European-American Settlement of Greene County and the Springfield Area, ca. 1818–1838

See figure 6, Historic Period Plan, ca. 1818–1838; figure 7, Original Area of Greene County, Missouri; figure 8, Early Springfield showing Indian Trails; and figure 9, General Land Office Survey, which are located at the end of this section.

The first permanent European-American settler in the Greene County area is recorded as John P. Pettijohn. In 1818, he and several others settled on the James River, approximately ten to fifteen miles southwest of Springfield. A handful of new European-American settlers continued to come to southwestern Missouri throughout the early 1820s.²⁴

Soon thereafter, Henry R. Schoolcraft ventured into the interior Ozarks in search of lead deposits noted by earlier French explorers.²⁵ By January 1819, he had reached the junction of the James River and Finley Creek near Springfield. On his trip, he made some of the first detailed observations of the interior Ozarks. Schoolcraft described the area of the James in great detail:

Along its banks are found extensive bodies of the choicest land, covered by a large growth of forest trees and cane, and interspersed with prairies. Oak, maple, white and black walnut, elm, mulberry, hackberry, and sycamore, are the common trees, and attain a very large size. On the west eminence, a prairie of unexplored extent ... and covered with tall rank grass. The prairies, which commence at the distance of a mile west of this river [the James], are the most extensive, rich, and beautiful of any which I have ever seen west of the Mississippi River. They are covered by a coarse wild grass, which attains so great a height that it completely hides a man on horseback in riding through it. The deer and elk abound in this quarter and the buffalo is occasionally seen in droves upon the prairies and in the open high-land woods. Along the margins of the river, and to a width of from one to two miles each way is found a vigorous growth of forest trees, some of which attain an almost incredible size. The lands consist of a rich black alluvial soil, apparently deep, and calculated for corn, flax and hemp. The river banks are skirted with cane, to the exclusion of all other underbrush; and the lands rise gently from the river for a mile terminating in high-lands, without bluffs, with a handsome growth of hickory and oak, and a soil which is probably adapted for wheat, rye, oats and potatoes. Little prairies of a mile or two in extent are sometimes seen in the midst of a heavy forest, resembling some old cultivated field, which has been suffered to run into grass. ... It is a mixture of forest and plain, of hills and long sloping valleys, where the tall oak forms a striking contrast in the rich foliage of the evergreen cane, or the waving field prairie grass. It is an assemblage of beautiful groves, and level prairies, of river alluvion [sic], and high land precipice, diversified by the devious course of the river, and the distant promontory, forming a scene so novel, yet so harmonious, as to strike the beholder with admiration.²

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²⁴ Holcombe, *History*, 126.

²⁵ Holcombe, *History*, 125.

²⁶ Henry R. Schoolcraft, *Rude Pursuits and Rugged Peaks: Schooolcraft's Ozark Journal, 1818–1819* (Fayetteville: The University of Arkansas Press, 1996), 81-83.

Schoolcraft's observations clearly document the variable environment of the Wilson's Creek NB vicinity prior to widespread European-American settlement. He notes that the rivers are edged with tall cane and a substantial growth of oak, maple, walnut, and sycamore. This forest is described as devoid of any undergrowth. The land rises gently from the river to the 'high-lands' containing open stands of oak and hickory. A large prairie expands west of the James and is characterized by tall grass. Smaller pockets of prairie grass are also noted on higher lands surrounded by forest. Beyond his general description, Schoolcraft also indirectly promoted settlement of the area, portraying the James River vicinity as extremely fertile and offering "great attractions to enterprizing [sic] emigrants."²⁷

On August 10, 1821, President James Monroe proclaimed Missouri statehood. In 1822, the Delaware began to enforce their treaty with the United States, which established a reservation in Greene County. They disputed European-American settler claims and asserted their rights to the land. The federal government confirmed the domain of the Delaware reservation, and many of the first settler families eventually moved out of the area. Those that remained rented land from the Delaware.²⁸

James Wilson arrived in Greene County by 1821 and settled in the area of Wilson's Creek. For several years, Wilson and others traded with the Delaware and acted as their liaisons with westward expanding immigrants. Much of the local economy during this early period centered on hunting and the fur trade. It is believed that Wilson's Creek is named after this early settler.²⁹

Between 1828 and 1831, the Kickapoo and Delaware were forced to move west out of southwestern Missouri by a new treaty they had signed with the U.S. Government. This event essentially removed the American Indian population from Greene County. By the early 1830s, a new wave of European-American settlers began to repopulate southwestern Missouri. Many of the early settlers came to the Springfield area because of its plentiful springs. John P. Campbell and John Fulbright settled in the Springfield area in 1830. Joseph Rountree also came to the area and settled on Wilson's Creek approximately three miles from Springfield in 1831.³⁰

Many of these early settlers were subsistence farmers. At his death in 1834, an inventory of James Wilson's estate reflects the earliest settlers' reliance on a combination of subsistence practices such as hunting, trading, mining, agriculture, and animal husbandry. By the 1830s, agriculture and animal husbandry were the primary means by which James Wilson made a living. His estate included 65 bushels of wheat, 100 bushels of corn, 2 grindstones, a plow, 2 reaping hooks, and a scythe. He also had a total of 5 cows with 4 heifer calves, 1 bull, 2 yoke of work steers, 3 steers, 3 sows, 11 pigs, 11 hogs and 43 bee hives. Two rifles, several 'bare' [sic] skins, and a 'mining pick' and shovel were also represented. William J. Rountree, recalling life on his grandfather's farm southeast of Springfield, noted that his grandfather came to the area in 1831 and built a one and one half story log cabin, which was later expanded with additional frame and log rooms. Wheat and corn were the dominant crops, with flax and cotton also grown. The grain was manually harvested, threshed by horses in a barn, and then taken to a local mill for processing. Cattle, hogs, sheep and mules were kept and wild animals in the vicinity were hunted including prairie chickens, turkey, passenger pigeons and deer.³¹

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²⁷ Schoolcraft, *Ozark Journal*, 83.

²⁸ Paul C. Nagel, *Missouri: A History* (Lawrence: University Press of Kansas, 1977), 44-48; Holcombe, *History*, 130.

²⁹ Holcombe, *History*, 131.

³⁰ Holcombe, *History*, 136-140, 143, 891.

³¹ National Park Service, "Joseph Rountree," Ms. in the vertical subject files, Mr. and Mrs. John C. Hulston Civil War Research Library, Wilson's Creek National Battlefield, Republic, Missouri, hereinafter referred to as the

By 1833, Greene County was created and included all of southwestern Missouri. In 1835, the town of Springfield was laid out in lots and noted to contain approximately fifteen dwellings. On August 27, 1836, John P. Campbell donated fifty acres of land to Greene County for the location of the county seat. Two years later, the town of Springfield was incorporated. In 1834, the county court ordered a road to be marked and laid out "from Springfield westwardly until it strikes the main fork of Six Bulls ...in the direction of Fayetteville, Arkansas." This road may have followed an old American Indian trail, the Delaware Trace or Pioneer Road, and passed directly through Wilson's Creek NB in a northeast to southwest direction. The road was surveyed in 1835; however, construction was not likely begun until 1836. This road eventually became known as the 'Telegraph' or 'Wire' Road.³²

In 1835, A.F. Garrison surveyed Township 28 North, Range 23 West for the federal government. This land included a majority of the property contained within Wilson's Creek NB. Later that same year a GLO office opened in Springfield for the purposes of selling and recording public land.

As noted in the previous section, the government surveyors described the intersections of the exterior boundary and subdivision lines within Township 28 North, Range 23 West. While their descriptions are much more general and uniform than Schoolcraft's, their notes are valuable and confirm many of his observations made fifteen years earlier. In addition to describing the placement of section corners, A.F. Garrison listed the types of trees and undergrowth present and generally noted the quality of the land and soils. He crossed Wilson's Creek numerous times during his survey and described it as being gentle to swift flowing, and from 20 to 220 links wide with a mud or gravel bottom. Generally the bottomlands adjacent to Wilson's Creek were described as flat or gently rolling, 'first quality' and 'fit for cultivation.' Away from the river, Garrison described bluffs as rolling or gently rolling, 'second quality,' 'flinty,' and 'fit for cultivation.' The entire area was described as 'thinly timbered' and trees characteristic of the area included blackjack, black, and white oak. Blackjack oak dominated the upland savannas with less frequent occurrences of black oak. White oak and black oak occupied mesic slopes while white oak and post oak were most commonly documented in the bottomlands. Other trees identified in the bottomlands included an occasional sycamore, hackberry, hickory, walnut or elm. A stand of chinkapins not mentioned in the survey notes is marked on the 1838 survey plat. Very little undergrowth is noted for the stands of trees away from the bottomlands. Like Schoolcraft before them, the surveyors identified and promoted the agricultural potential of the Wilson's Creek NB area.³³

From the late 1830s through the 1840s the 'breaking of sod' for agricultural purposes began to change the nature of the vegetation in the area as well as the hydrologic functioning of the site. Early frontier activity consisted of subsistence farming and rapid removal of the pre-European settlement cultural landscape. In some portions of the Midwest, the depletion of wolf populations by frontiersmen resulted in increases in deer populations, which also contributed to the chronic changes occurring within the landscape. The abandonment of the regular use of fire by the American Indians as a management activity led to a diminishment of biodiversity. Other changes introduced after 1830 that degraded the ecological health of the regional landscape included the introduction and unchecked growth of non-native and invasive plant species, the onset of localized erosion due to the 'tilling up' of the ground, the reduction of deep-rooted prairie plants, and finally

Wilson's Creek NB Library; National Park Service, "James Wilson," Ms. in the vertical subject files, Wilson's Creek NB Library.

 ³² Holcombe, *History*, 721-733; "Transportation in the Wilderness," *Missouri Historical Review* 60 (July 1966):
600; Angus Fern, *Down the Wire Road in the Missouri Ozarks* (Cassville, MO: Litho Printers, 1992), 9.
³³ U.S. General Land Office Survey, "Field Notes, Missouri Surveys," (n.p., 1835). (Microfilm in Greene County Records and Archives Center, Springfield, Missouri).

the compaction of soils and overgrazing of vegetation due to free-range grazing of livestock, which were over-stocked and exhibited different grazing behaviors from bison and elk.

During this period, two new vegetation types emerged. These included:

Cultural vegetation: Since European settlement, this flora has been augmented by species introduced from Eurasia, such as redtop (*Agrostis alba*), common burdock (*Arctium minus*), thyme-leaved sandwort (*Arenaria serpyllifolia*), hairy chess (*Bromus commutatus*), Japanese chess (*B. japonicus*), cheat grass (*B. tectorum*), shepherd's-purse (*Capsella bursa-pastoris*), mouse-ear chickweed (*Cerastium vulgatum*), wild carrot (*Daucus carota*), crabgrass (*Digitaria sanguinalis*), prickly lettuce (*Lactuca serriola*), field pepperweed (*Lepidium campestre*), black medick (*Medicago lupulina*), Kentucky bluegrass (*Poa pratensis*), dock (*Rumex crispus*), dandelion (*Taraxacum officinale*), and white clover (*Trifolium repens*).

Planted Species: Horticultural species are part of no plant community, unless they are known to have escaped cultivation and become naturalized in the destabilized and depauperized landscapes dominated by "cultural" species, which now prevail in the park.



Early European-American Settlement of Greene County and the Springfield Area, ca. 1818–1838

Figure 7. Map showing the original (early nineteenth century) area of Greene County.

Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I



Early European-American Settlement of Greene County and the Springfield Area, ca. 1818–1838

Figure 8. Early nineteenth-century town of Springfield and surrounding areas of Greene County, showing routes of travel and features associated with American Indian occupation and settlement.

Source: Index of the Springfield Land Office Sales Book



Early European-American Settlement of Greene County and the Springfield Area, ca. 1818–1838

Figure 9. General Land Office Survey, ca. 1830s.

European-American Settlement of Wilson's Creek, Agrarian Use and Development, ca. 1838–1861

See figure 10, Historic Period Plan, ca. 1838–1861; and figures 11 and 12, early Greene County land ownership, which are located at the end of this section.

In recounting his experience growing up in the Springfield vicinity in the nineteenth century, Jesse M. Kelly recalled that the area outside of the newly established town was largely unoccupied, open prairie. "The grass of the prairies grew very tall, and what paths there were through the prairies had gradually been worn down by deer and buffalo." Settlement was conveniently located adjacent to area roads and springs. "No man in those days would settle in this country unless he had a spring of running water. The next thing of importance to him, and for which he sought, was timber. ...Neighbors were from one to three miles apart and dependent altogether on where the Creator had planted springs for a settlement." Due to the relatively treeless landscape, existing trees were highly valued. "Here and there was a large oak tree. [My father] kept the fire out of that for protection, and it grew in sprouts. The next year or two they had grown to bushes, and then got to be saplings, and the last time I saw that timber over forty years ago [ca. 1867], it would have made six rails to the cut. That is how the timber grows in this country." Because most of the early farmers who came to Greene County during the antebellum period were from Tennessee, Kentucky, and Virginia, they were used to a woodland environment where trees were cleared to make agricultural fields. Fencing in a prairie was an entirely new experience.

It appears that at least early on, purposeful or accidental prairie fires played an important part in the regional ecosystem. "In the fall of the year, when the grass would be dry and a fire would get started, if the wind was high, it would take a pretty fleet horse to keep out of the way." Wheat was an important crop from the start. Annual cash crops were transported by team to market in Boonville.³⁴

The property contained within the boundaries of Wilson's Creek NB was not initially settled until the late 1830s, with most of the permanent settlers arriving during the mid- to late 1840s. The two major stimuli for the permanent European-American settlement of the region were the removal of the Delaware and Kickapoo, and the establishment of the Fayetteville Road in 1836, which ran directly through what is now park property.

Without exception, the first lands purchased within the vicinity of the battlefield during this period were the fertile bottomlands adjacent to Wilson's Creek. These lands were purchased because they promised the most agricultural potential and were also conveniently located near a water source and a road that led northeast ten miles to Springfield and beyond to the major regional city of St. Louis. Many of the area's first settlers 'squatted' on the land prior to initiating a formal purchase from the GLO. This trend appears to have been followed by numerous residents in the vicinity of Wilson's Creek. The formal purchase dates recorded in the GLO therefore may not reflect the year that particular properties were actually settled.

The first settler to formally purchase land within the park from the federal government in the Springfield Land Office was John Dixon, who in June 1839 purchased 40 acres in the

³⁴ Personal Reminiscences and Fragments of the Early History of Springfield and Greene County, Missouri. Related by Pioneers and their descendents. At Old Settler's Dinners given at the home of Capt. Martin J. Hubble, March 21, 1907, 1908, 1909, 1910, 1911 (Springfield: Museum of the Ozarks, 1979), 22-28.

southwesternmost corner of Section 25, adjacent to Wilson's Creek. In August 1843, Joseph Sharp purchased 80 acres in the northeastern quadrant of Section 35, later expanding his holdings by purchasing 40 acres in 1846 in the northwestern quadrant of Section 36. Also in 1843, John Burden purchased 40 acres in the southwestern quadrant of Section 36. By the mid-1840s, the northern part of the park began to be settled. In 1846, William Kerr purchased 40 acres in the southwestern quadrant of Section 24. By May of 1847, William Steele had purchased 40 acres in the southeastern quadrant of Section 23 and 40 acres in the southwestern quadrant of Section 24. He purchased another 40 acres in the northwestern quadrant of Section 25 in December of 1847. In 1848, Elbert Rose purchased 40 acres in the northwesternmost corner of Section 25. No additional land is recorded as being purchased within the park boundaries until the early 1850s.³⁵

After mid-century, landowners began to purchase the less desirable parcels further away from Wilson's Creek. In August of 1851, John Ray purchased 40 acres in the southwestern quadrant of Section 24, 40 acres in the northwesternmost corner of Section 25, and 40 acres in the northeastern quadrant of Section 25. In 1856, he expanded his landholdings and purchased 40 acres in the northwestern quadrant of Section 25. Joseph Sharp expanded his landholdings further, purchasing 40 acres in the northeastern quadrant of Section 35 in 1850, 40 acres in the northwesternmost corner of Section 36 in 1852, and 40 acres in the northeastern quadrant of Section 35 in 1850, 40 acres in the northwesternmost corner of Section 36 in 1852, and 40 acres in the northeastern quadrant of Section 23 and purchased an additional 160 acres in the southwestern quadrant of Section 23 in 1854. In the same year, Hesekiah Blankenship purchased 120 acres in the southeastern quadrant of 35, and in 1855 he purchased another 40 acres in the southeastern quadrant of Section 23.³⁶

By this time, corporate landowners also had a stake in the region. In 1854, the Alexandria and Pacific Railroad was granted the entire Section 26 and parts of Sections 24 and 36 of Township 28 Range 23, for a potential right-of-way. This land was held for a few years until it was clear that the railroad was not going to proceed beyond Springfield.³⁷ Like the rest of the land within the park area during the mid- to late 1850s, this land was sold to individuals. In 1854, John M. Gibson purchased 160 acres in the southeastern quadrant of Section 23. By 1858, William B. Edwards had purchased 50 acres in the southwestern quadrant of Section 25. Other purchasers of former railroad lands included the firm of McAdams and Armstrong (n.d.) which bought 80 acres in the northeastern quadrant of Section 26, and Charles B Manley (n.d.) who bought 40 acres in the northeastern quadrant of Section 26.³⁸

Population statistics show that in 1840 there were 555 households and 5,372 residents of Greene County.³⁹ Just over one-fifth of the households owned slaves. Of those whose occupations were listed, 95 percent were employed in agriculture. By 1860, population statistics for Greene County document 118 households and 660 residents living in Wilson Township. While the dominant occupation listed was 'farmer,' more varied skills were also represented, including a merchant,

³⁵ The Springfield [Mo.] Land Office Sales Book, 1829–1892. Greene County Archives and Record Office, Springfield, Missouri.

³⁶ The Springfield [Mo.] Land Office Sales Book.

³⁷ The Atlantic and Pacific Railroad did not arrive in Springfield until 1870.

³⁸ The Springfield [Mo.] Land Office Sales Book; 'Township 28 North, Range 23 West of 5th Principal Meridian,'

from An Illustrated Historical Atlas Map of Greene County, Mo (Brink, McDonough & Co., 1876).

³⁹ Up through the mid-nineteenth century, Greene County was much larger than its present size and included part of Wayne County.

boatman, stock dealer, school teacher, shoemaker, stonemasons, carpenters, wagoners [sic], and two carders. 40

The 1848 estate inventory of William Steele documents that the subsistence trends initiated in the 1830s continued up to the Civil War. William Steele was a blacksmith by trade. However, he also owned oxen, plows, a scythe and a grindstone. In addition he had four heifers, a bull, four cows and a calf, two steers, twenty-five hogs, seven sheep and five beehives.⁴¹

By 1860, most farmers had only improved a small portion of their total land holdings. Of 440 total acres, John Ray had 150 acres, or 34 percent, under cultivation. John Gibson had 115 acres, or 29 percent, of his land under cultivation. John Dixon had 200 acres, or 42 percent, of his land under cultivation. Others, including William B. Edwards, Elias B. Short, and Joseph D. Sharp had respectively 32 acres (10 percent), 50 acres (18 percent), and 250 acres (18 percent), under cultivation. Of those property holders known to have owned land located within the park in 1860, 877 of 2,893 acres or approximately 30 percent of the total acreage was under cultivation.⁴²

Corn was by far the dominant crop and was likely used both to feed livestock and for domestic consumption. In 1860, John Ray produced 272 bushels of wheat, 1,000 bushels of corn, 5 tons of hay, and 300 bushels of oats; William B. Edwards produced 267 bushels of wheat, 1,000 bushels of corn, 15 tons of hay, and 600 bushels of oats. John Gibson, the local miller, produced 151 bushels of wheat, 1750 bushels of corn, and 50 bushels of oats, and Elias B. Short produced 140 bushels of wheat and 1,200 bushels of corn.⁴³

Personal property tax records from Greene County during the latter part of this period reflect the importance of animal husbandry. In 1856 and 1857, John Ray owned sixteen cattle worth \$305, and Joseph D. Sharp owned eighteen cattle worth \$295 and one jack mule worth \$40. A year later, John Ray had twenty-four cattle worth \$400, but in 1860 is only recorded as owning four cattle worth \$45. In 1857, John Gibson is recorded as owning thirty-two cattle worth \$520. A year later he owned seventeen cattle worth \$225, but by 1860 he only had three worth \$30. These annually fluctuating numbers of cattle suggest that many landowners undertook commercial breeding for profit. Other property owners including William B. Edwards, Elias B. Short, John Gwinn, and Caleb Manley had more moderate annual increases and decreases of livestock, suggesting a more restricted role of production primarily for domestic consumption. Dairy cows also provided saleable products. In 1860, agricultural production records show that John Ray had seven milk cows that produced 500 pounds of butter. William B. Edwards, John Gibson and Elias Short also produced smaller amounts of butter. Hogs were an important part of the diet and may have also provided additional income. The 1860 agricultural schedules reported that John A. Ray had fifty hogs, and John Dixon had forty hogs. Most farmers, however, including John Gibson, William Edwards, Elias Short, and Joseph B. Sharp held between twenty and thirty hogs. While most farmers did not keep sheep, Joseph D. Sharp and John Dixon had sixty-four and sixty sheep respectively.44

⁴⁰ Sixth Census of the United States, 1840. Population Schedule. M704, Roll 223; Eighth Census of the United States, 1860. Free Schedule. M653, Roll 621.

⁴¹ Inventory of Accounts for William Steele, 1848. Greene County Records and Archives Center, Springfield, Missouri.

⁴² "Agricultural Productions, Greene County, Missouri," Eighth Census of the United States, 1860.

⁴³ "Agricultural Productions, Greene County, Missouri," *Eighth Census of the United States, 1860.*

⁴⁴ "Personal Property Tax Records, Greene County, Missouri." Greene County Records and Archives Center,

Springfield, Missouri; "Agricultural Productions, Greene County, Missouri," *Eighth Census of the United States, 1860.*

A few farmers also raised mules. Because mules were often grouped with horses in personal property tax records, it is difficult to assess their importance during the antebellum period. In 1858, William B. Edwards was listed as owning seven 'horses and mules,' John Ray owned five 'horses and mules,' and Joseph D. Sharp owned nine 'horses and mules.' The 1860 agricultural census records that Joseph D. Sharp and John Dixon had four mules each. Horses and mules were most likely used by farmers to break ground and plow fields. Two of the larger landowners of the period, John Ray and Joseph D. Sharp, each had a relatively large number of 'horses and mules.'⁴⁵

The farmers in the vicinity of Wilson's Creek appear to have been typical of other regional producers. In 1858, over 1,000 yoke of oxen were sold from Greene County and fetched between \$75 and \$85 per yoke. The oxen were purchased primarily by Santa Fe and Utah freighters. In addition, almost 1,400 horses and mules were sold from Greene County to southern cotton and sugar planters at \$140 per head.⁴⁶

Slave records document that a minority of Wilson's Creek vicinity residents owned slaves during the antebellum period. The 1850 slave census documents that of eleven households recorded as living on or near Wilson's Creek NB lands, only three, or approximately 27 percent, owned slaves. At William Steele's death in 1848, he owned two slaves. In 1850, John Ray owned two slaves, Joseph D. Sharp owned four slaves, and John Dixon owned six slaves, four of them below the age of three. A decade later the same trend continued. Of the eighteen households recorded as living on or near Wilson's Creek NB lands, only two, or approximately 11 percent, owned slaves. Of those slave owners listed, John Gwinn had four slaves and John Ray had five slaves. No slave census data exists for Christian County for 1860. Personal property tax records reflect that these numbers varied only slightly throughout the 1850s with most slave owners possessing three to four slaves each.⁴⁷

While many Wilson's Creek vicinity residents owned the land they farmed, tenancy also played a prominent role in the agricultural economy. In 1850, population statistics for Greene County document that several residents did not have a value of real estate entry. John Gwinn, Solomon Edgar, John Ray, Nathaniel Harrington, and Markham McElhaney did not possess any valued real estate in Polk and Porter Townships. In 1860, Caleb Manley, Hezekiah Blankenship, William Jackson, John McNary, and Matilda Schlemer in Greene County, and John Steele and Henderson Potter in Christian County did not possess any valued real estate. This may indicate that these residents rented the property they farmed or that they had not yet formally purchased land from the federal government.⁴⁸

In 1846, the federal government initiated a contract with Joseph Burdin to carry the U.S. Mail from Springfield, Missouri, to Fayetteville, Arkansas. Burdin traveled the Fayetteville Road by a two-horse stage to deliver the mail. By 1858, the Butterfield Overland Stage and Mail was formed and also used the Fayetteville Road as a route southwest to Arkansas. The first post office established at

⁴⁵ "Personal Property Tax Records, Greene County, Missouri." Greene County Records and Archives Center, Springfield, Missouri; "Agricultural Productions, Greene County, Missouri." *Eighth Census of the United States*, 1860.

⁴⁶ Edwin C. Bearss, "The Ray House, Wilson's Creek Battlefield National Park, Historic Structures Report, Part II" (Omaha: National Park Service, Division of History, Office of Archeology and Historic Preservation, 1968), 25.

⁴⁷ Inventory of Accounts for William Steele, 1848. Greene County Records and Archives Center, Springfield, Missouri; Seventh Census of the United States, 1850. Slave Schedule. M432, Roll 423; Eighth Census of the United States, 1860. Slave Schedule. M653, Roll 662.

⁴⁸ Seventh Census of the United States, 1850. Free Schedule. M432, Roll 400; Eighth Census of the United States, 1860. Free Schedule. M653, Roll 621.

Wilson's Creek was in 1856 at the house of John A. Ray. Ray was listed as the first postmaster, serving in that capacity until the office was discontinued in 1868.⁴⁹

In March 1859, Christian County was formed out of Greene County. The new county line divided the lands that were to encompass the Wilson's Creek NB along east–west Farm Road 194, the northern two-thirds remaining part of Greene County, and the southern one-third becoming part of Christian County.⁵⁰

In 1859, the newly chartered Missouri and Western Telegraph Company was authorized to build, buy and operate lines west of the Mississippi River. By 1860, telegraph lines had reached Springfield. Later that same year, telegraph lines were constructed along the Fayetteville Road, which carried them southwest through the Wilson's Creek vicinity. By 1861, the Fayetteville Road was commonly known as the 'Wire Road.'⁵¹

The Gibson Mill and House Site

In the back of his Bible, John M. Gibson recorded that he, his wife and one daughter "left Tennessee on 12 September 1854 and emigrated to the state of Missouri" and arrived at their "new home on the 2nd of November the same date." He had purchased 160 acres from the federal government in March 1854 in Section 3, Township 28, Range 23, and 40 additional acres in Section 1, Township 28, Range 23, a year later. This evidence suggests that at least initially, John M. Gibson and his family settled in the northern part of Township 28, Range 23, approximately four miles due north of the park. The Bible entry suggests that by November 1854, Gibson and his family had moved into an existing house. It is not clear, however, if Gibson built this house prior to moving, if he purchased an already existing home, or if he rented from another property owner. Between 1854 and 1859, John Gibson may have assisted W.L.A. Robertson, a Wilson's Creek resident, with general farming or milling responsibilities for on October 20, 1859, he purchased Robertson's mill, house, and other improvements in the southeastern quadrant of Section 23 in Township 28, Range 23. Gibson received formal title to the Robertson property in August 1863.⁵²

The 1860 census lists John M. Gibson as a 'carder.' His household was composed of several renters including a farmer and carder, both of whom may have assisted him with his milling operations and agricultural tasks. Wool carding was a substantial business during the antebellum years, particularly in slave holding states. It is possible that Gibson may have initiated the carding factory sometime after arriving in Greene County, between 1855 and 1860. Soon after Gibson purchased the Robertson mill property, John C. Williams, a carder, moved from Lawrence to Greene County, Missouri, and recorded his relationship with Gibson:

In the spring of 1861, I went to Wilson Creek, Green County, 18 miles east of home, where the Oak Hill Battle was fought on August 10 of that year, and took charge of one Gibson's carding factory, operating it until the early part of June. ...I continued running the factory until the early part of June notwithstanding the fact that excitement was then filling the whole country; ...It was then I began to think the

⁴⁹ Fern, *Down the Wire Road*, 58; letter, Joseph B. Howerton to Mr. Hayward Barnett, January 29, 1981. Ms. in vertical subject files, Wilson's Creek NB Library.

⁵⁰ Holcombe, *History*, 263.

⁵¹ Fern, Down the Wire Road, 3.

⁵² "Gibson Family," Ms. in the vertical subject files, Wilson's Creek NB Library; Edwin C. Bearss, "Historical Base and Ground Cover Map, Wilson's Creek National Battlefield, Greene and Christian Counties, Missouri" (Denver: National Park Service, Denver Service Center, n.d.), 38.

season's business in a factory was well-nigh over – no new work coming in and everything indicated a short crop. So I made my settlement with my man Gibson, taking his note for what was due me …bade him adieu.

Maps drawn of the battlefield after the conflict record that, in 1861, Gibson's property consisted of at least three major structures: a mill, an unidentified structure adjacent to and east of the mill, possibly a carding factory, and a house north of the mill. By 1861, Gibson also had a well-developed agricultural field, which was located west of Wilson's Creek in the southeastern quarter of the southeastern quadrant of Section 23, and bordered the Section 23/24 division line. Battlefield descriptions of John Gibson's property document that he had both corn and oats growing in his field. The field was fenced and was described as 'a naked oat field.'⁵³

The William Steele House Site

At his death in 1848, the Greene County Court appointed three men to appraise the land and personal property held by William Steele. Three separate 40-acre parcels totaling 120 acres were owned by Steele, the most improved of which was located in the northeastern quarter of the northwestern quadrant of Section 25, Township 28, Range 23 West. Each of the 40-acre parcels was located within the current park boundary. While no information has been found to show where the Steele residence was located, if it is presumed that the Steele family lived on the land they owned, then it is likely that a house site once existed west of and adjacent to the John Ray House site. By 1851, John Ray had been married to Roxanna Steele, William's widow, for nearly two years. During the fall of this year, he purchased the remaining land of the William Steele estate. It is probable that any house site standing on the former Steele property may have been razed sometime after this date.⁵⁴

The John Ray House Site

Records show that in 1849, John Ray, a widower, married Roxanna Steele, the widow of William Steele. The fact that he courted and married Roxanna prior to purchasing his own property in the vicinity of Wilson's Creek suggests that he was already living nearby. The Steeles had moved to Greene County from Georgia in the early 1840s and squatted on land adjacent to Wilson's Creek before formally purchasing 120 acres in 1847. With his marriage to Roxanna, John Ray most likely moved into the Steele residence, and as head of the household purchased the balance of the Steele property. Their growing families soon required the construction of a larger residence. In August 1851, John Ray formally purchased 120 acres from the federal government adjacent to the Steele property. Sometime between 1851 and 1856, John Ray built a substantial house in the northwestern quarter of the northeastern quadrant of Section 25. This structure is the only surviving residence within Wilson's Creek NB dating to August of 1861.⁵⁵

Maps of the battlefield drawn after the conflict record that in 1861, the Ray farm complex consisted of at least three major structures: a residence east of and adjacent to the Wire Road, and behind it, two unidentified smaller structures extending to the southeast. In 1861, the Ray residence had a

⁵³ Bearss, "Historical Base and Ground Cover," 38, 40; "Gibson's Mill, House and Family," Ms. in vertical subject files, Wilson's Creek NB Library; Wm. Hoelcke, Captain & Addl. A. de Camp, USA, Chief Eng. Depart. of the Mo., "Map of the Battlefield of Wilson's Creek, Mo," 1885, National Archives, Record Group 77; V. Boardman, Office of the Chief Engineer, Division of the Missouri, "Map of the Battlefield of Wilson's Creek," June 12, 1885. ⁵⁴ "Steele Family," Ms. in vertical subject files, Wilson's Creek NB Library; Bearss, "Ray House," 26-39.

⁵⁵ Bearss, "Ray House," 26-39. Bearss (p. 3) suggests that the Ray House was built in 1852 or 1853.

cellar and a front porch, which overlooked a majority of the battlefield. In an interview in 1930, Mrs. Ollie Bruton, daughter of John Ray, noted the presence of several outbuildings including a 'chicken house.' Conversations with area residents confirmed that there was also a 'slave cabin' that stood approximately seventy-five feet southeast of the Ray residence.⁵⁶

Battlefield descriptions of the John Ray property document that he had a large cornfield northwest of his residence and a smaller orchard spanning the north and south sides of a ravine leading down to a creek, possibly Ray's Branch, also adjacent to and northwest of the house. The cornfield and orchard were each bordered by a rail fence.⁵⁷

The William B. Edwards Cabin Site

William B. Edwards came to Greene County and settled in the Wilson's Creek vicinity in the early 1840s. Sometime later, he constructed a small cabin on the west side of Wilson's Creek and adjacent to the Wire Road. In 1876, a short biographical sketch recorded that

in 1842, he moved back to Greene County and bought land on Wilson's Creek, where he was living up to the time of the war. His family was one and one half miles from the battle of Wilson's Creek. In 1867, he moved to his present farm in Section 25, Wilson Township. He has been a successful farmer and owns 482 acres of land, 275 in Greene County and the rest in Christian County. He has been in the stock business and during the war followed it quite extensively.

In 1858, he formally purchased 80 acres adjacent to Wilson's Creek from the federal government in the north half of the southwestern quadrant of Section 25. He likely farmed fields located in the Wilson's Creek floodplain on either side of the watercourse.⁵⁸

Period maps of the battlefield show a single, small structure located in the vicinity of General Price's encampment. Battlefield descriptions of the William B. Edwards property describe it as "a cow-yard by a little farm house down in a hollow."⁵⁹

The Caleb B. Manley House Site

The earliest evidence for the presence of a Manley homestead comes from battlefield maps that identify a structure marked as 'Manley's,' on the south side of a small road leading east from the Wire Road in the ravine holding Manley's Branch. The structure is pictured as surrounded by a small, fenced enclosure. The 40 acres containing this structure, and an adjacent 40 acres, were formally purchased from the federal government by Caleb B. Manley in November of 1865. However, Bearss has suggested that the Manleys had been living at their farm 'for some time,' by 1861.⁶⁰

⁵⁶ V. Boardman, "Map of the Battlefield of Wilson's Creek," 1885; National Park Service, "Ray House and Family," Ms. in vertical subject files, Wilson's Creek NB Library; Bray, 1975 "Inventory and Evaluation," 7-12.

⁵⁷ Bearss, "Historical Base and Ground Cover," 53.

⁵⁸ *An Illustrated Historical Atlas*, 1876, 51; Bearss, "Historical Base and Ground Cover," 64-65; Holcombe, ed. *History*, 687.

⁵⁹ V. Boardman, "Map of the Battlefield of Wilson's Creek," 1885; Wm. Hoelcke, "Map of the Battlefield of Wilson's Creek, Mo.," 1885; Bearss, "Historical Base and Ground Cover," 64.

⁶⁰ "Map of the Battlefield of Wilson's Creek," 1885, V. Boardman; "Map of the Battlefield of Wilson's Creek, Mo.," Wm. Hoelcke, 1885; Bearss, "Historical Base and Ground Cover," 68; the Manley cemetery, while present

The 1858 personal property tax records for Greene County indicate that Caleb Manley owned a total of nine cattle, but do not include the location of his property. This information suggests that, like many other southwestern Missouri residents, Caleb Manley was probably a squatter on government land for several years before the Battle of Wilson's Creek.⁶¹

The Joseph D. Sharp House Site

Joseph D. Sharp formally purchased 80 acres in August 1843, 40 in the northeastern quarter of the northeastern quadrant of Section 35, and 40 in the southeastern quarter of the northeastern quadrant of Section 35. Despite purchasing much additional property throughout the 1850s, these original 80 acres appear to have remained the center of his land holdings.

Period maps of the battlefield indicate that the Sharp residence was located west of Wilson's Creek, south of Skegg's Branch, and adjacent to and east of the Wire Road. These maps identify two major structures at the Sharp farm, one labeled as 'Sharp's,' presumably his residence, and a second labeled as 'Rebel Hospital,' likely a significant outbuilding, adjacent to and west of the residence. Eyewitness descriptions of the Sharp farm in 1861 described it as a "pretty substantial farm house with extensive barns and out-houses" including a hay-loft.⁶²

Battle period descriptions of the Sharp Farm document a large, fenced cornfield south of his residence. Adjacent to and west of the Sharp cornfield was a small road that paralleled the division lines between Sections 35 and 36. Prior to the August 10 battle, a Confederate eyewitness approaching Sharp's farm from the south noted that he "passed through his lot gates down in the rear of his premises."⁶³

As they approached Sharp's residence from the south, several Union eyewitnesses noted the presence of substantial numbers of cattle and horses at his farm and that it was "used as a slaughtering place." Personal property tax records from the late 1850s document that Joseph D. Sharp did own a significant number of cattle. In addition, the 1860 Agricultural Census records that Sharp slaughtered \$300 worth of livestock. However, a Sharp family history written in 1935 makes no mention of a butchering business. It is possible that Sharp may have sold beef commercially, or that the Sharp farm could have been a convenient processing center for the Confederate Army's requisitioned livestock. Prior to August of 1861, Joseph D. Sharp was apparently a well-to-do farmer who owned five or six slaves. By 1857, he owned 360 acres in both Sections 35 and 36, and a total of 1,372 acres in Christian County. In 1860, he had livestock valued at \$1,290 and his farm operation was worth \$5,400.⁶⁴

today, may not have been present prior to 1871. The earliest burial markers indicate that bodies were not interred there until the early 1870s. This suggests that the cemetery may not have been established until after the Civil War. ⁶¹ List of Taxable Property, Greene County, 1858. Greene County Archives and Records Center, Springfield, Missouri.

⁶² V. Boardman, "Map of the Battlefield of Wilson's Creek," 1885; Wm. Hoelcke, "Map of the Battlefield of Wilson's Creek, Mo.," 1885; William Watson, *Life in the Confederate Army* (New York: Scribner and Welford, 1888), 222.

⁶³ Bearss, "Historical Base and Ground Cover," 74.

⁶⁴ Bearss, "Historical Base and Ground Cover," 71; "Sharp Family," Ms. in vertical subject files, Wilson's Creek NB Library; Bray, 1975 "Inventory and Evaluation," 18; *List of Taxable Property, Greene County, Missouri 1856 - 1858*. Greene County Archives and Records Center, Springfield, Missouri; Productions of Agriculture, Christian County, Missouri. *Eighth Census of the United States, 1860*.

Because of the heavy fighting that surrounded the Sharp Farm, his structures and property were heavily damaged. One correspondent noted that "all the buildings were …riddled by shot." One of the few Southern sympathizers in the Wilson's Creek vicinity, Joseph D. Sharp had fled the fighting, although his family hid in the basement of his residence. Upon his return to a "broken and ruined home, the family moved to Howell County (Missouri) where he owned a farm about eight miles from West Plains." Soon after the conflict, his residence and property were burned, most likely by Union sympathizers, and the Sharps never returned to Wilson's Creek. By 1867, Joseph D. Sharp had sold a majority of his land at Wilson's Creek.⁶⁵

The Edgar House Site and Cemetery

In the early 1850s, Josiah (J.J.) Edgar and his wife Susannah purchased 40 acres in Section 12, and 40 acres in the southwestern quarter of the southeastern quadrant of Section 24 from the federal government, eventually settling northwest of the future battlefield. Sometime between 1853 and 1857, he and his family moved to the northwestern quarter of the southwestern quadrant of Section 24 and acquired or built a residence adjacent to the Section 23 and 24 division line. While no deeds record the sale, Josiah Edgar and his family may have purchased a total of 120 acres from William Kerr and the Alexandria & Pacific Railroad, the former property owners. An 1877 plat book shows a single structure within the Edgar property north of and adjacent to Wilson's Creek. In 1857, Josiah Edgar died and was buried in a family plot, southeast of his residence. At age forty-five, Susannah Edgar became the head of household and inherited her husband's property.⁶⁶

The 1850 Census listed Josiah as a farmer with real estate valued at \$150. The 1860 Census also listed Susannah as a farmer with four children. Her real estate was valued at \$200.⁶⁷

The J.T. Manley or J.K. Manley House Site

A battlefield map drawn by Union General Franz Sigel in 1868 identifies a structure labeled as 'J.T. Manley's House,' located on the western park boundary north of and adjacent to Skegg's Branch. The map shows two structures located in the vicinity of the southeastern quadrant of Section 26, one a residence, and the second presumably a barn or associated outbuilding. A J.K. Manley purchased a total of 80 acres from the federal government, 40 acres in the northwestern quarter of the southeastern quadrant of Section 26, and 40 acres in the southwestern quarter of the northeastern quadrant of Section 26; however, the date of either purchase was not recorded. All of Section 26 was given to the Alexandria & Pacific Railroad in 1854, so it is possible that J.T. or J.K. Manley did not settle on the land until between 1855 and 1861. If General Sigel's map is accurate, then a structure was built in the northwestern quarter of the southeastern quadrant of Section 26 by 1861 at the latest.⁶⁸

⁶⁵ "Sharp Family," Ms. in vertical subject files, Wilson's Creek NB Library; Bearss "Historical Base and Ground Cover," 74-75.

⁶⁶ "Edgar Cemetery," Ms. in vertical subject files, Wilson's Creek NB Library; "Township 28 North, Range 23, West of 5th Principal Meridian," in *An Illustrated Historical Atlas*, 1876.

⁶⁷ "Edgar Cemetery," Ms. in vertical subject files, Wilson's Creek NB Library.

⁶⁸ General Franz Sigel, "Map of Wilson's Creek – Oak Hills Battlefield," compiled from surveys and war records. From *Kansas in the Civil War, Vol. 3*. Ms. in "Battle Maps and Army Organization" vertical subject files, Wilson's Creek NB Library.

The E.B. Short House Site

In 1852, Elias (E.B.) Short formally purchased 40 acres from the federal government in the northwestern quarter of the southeastern quadrant of Section 23. Short, a farmer, had moved to Greene County from Tennessee and by 1848 had purchased land in Section 22, an area west of and adjacent to the park boundary. He was therefore likely living in the Wilson's Creek vicinity for several years before purchasing land in Section 23. The presence of a 'never failing spring' in his 40-acre, Section 23 tract likely motivated him to move his residence within park boundaries.⁶⁹

Period maps of the battlefield record two structures present at the Short farm, a larger residence, and a smaller unidentified structure, possibly a springhouse. Population statistics from the 1860 census show that the Short family owned three 'dwelling houses.' One was their main residence, and the other two were listed as 'untenanted.' In a 1911 interview, John Short, a son of E.B. Short, recounted that his father's house was white with green shutters. This suggests that the Short residence may have been a frame structure.⁷⁰

During the 1850s, E.B. Short purchased a substantial amount of land, and by 1861 owned 320 acres of property within and west of Wilson's Creek NB. E.B. Short fled his farm just before the fighting began and had most of his cattle taken by soldiers. Short was a Union sympathizer and may have participated in the mule trade, selling livestock to the Union Army. Just before the Confederate Army came to Wilson's Creek, E.B. Short's yard was described as "full of mules." It is possible that much of the property held by E.B. Short could have been used as pasture.⁷¹

The Gwinn/Guinn/Winn House Site⁷²

Several battle period maps locate a structure on a long narrow ridge, north of the intersection of Wilson's Creek and the Wire Road and on the western side of the main thoroughfare. The Boardman and Hoelcke maps do not identify the structure. However, the General Franz Sigel map identifies the structure as John Gwinn or Guinn's House. In addition, a map produced in the second half of the nineteenth century by John A. Youngblood shows a 'Guinn's House' in this location. The structure is contained by a small, fenced lot and is adjacent to a small, fenced orchard on the slope to its northwest. Family history states that Larkin D. Winn moved from Polk County, Missouri with his family to the Wilson's Creek area in 1859 or 1860. An L.D. Winn is listed in the 1860 census for Greene County and he may have been renting the property and residence from Elbert Rose, the original purchaser of the southwestern quarter of the northwestern quadrant of Section 25 in 1848.⁷³

⁶⁹ "E.B. Short Family" Ms. in vertical subject files, Wilson's Creek NB Library.

⁷⁰ V. Boardman, "Map of the Battlefield of Wilson's Creek," 1885; Wm. Hoelcke, "Map of the Battlefield of Wilson's Creek, Mo.," 1885; "E.B. Short Family" Ms. in vertical subject files, Wilson's Creek NB Library; *Eighth Census of the United States, 1860.* Population Schedule. Greene County, Missouri. M653, Roll 621; Bray, 1966 "Inventory and Evaluation," 139, also notes the presence of two additional houses located in the survey of the E.B. Short homestead.

⁷¹ "E.B. Short Family" Ms. in vertical subject files, Wilson's Creek NB Library.

⁷² For simplicity, the property will consistently be referred to as the Gwinn House site.

⁷³ V. Boardman, "Map of the Battlefield of Wilson's Creek," 1885; Wm. Hoelcke, "Map of the Battlefield of Wilson's Creek, Mo.," 1885; General Franz Sigel, "Map of Wilson's Creek – Oak Hills Battlefield," n.d.; John A. Youngblood, "Wilson's Creek Battle Ground: Showing the positions of both Armies," n.d.

Whether due to the impending battle, or for another unexplained reason, Larkin D. Winn and family abandoned their house. In 1861, the Confederate commander McCulloch occupied his house as a headquarters and located the Pulaski battery nearby.

While the immediate vicinity of Wilson's Creek was settled, it was also a relatively isolated community. Between the community adjacent to Wilson's Creek and Springfield was prairie and not much else. As John M. Woods recalled, "I remember that on the day after the battle of Wilson Creek [sic], on Sunday morning, I got on my horse to go down to the battle ground, and I struck a bee line as straight as I could go through the prairie, and I never let down a fence, or went through anybody's gate from the old Weaver farm to the battleground. There was not a farm on the way from there [Springfield] to the battleground, a distance of about eight miles."⁷⁴

Many of the farmhouses and residences present in 1861 were located along the major transportation routes running through Greene and Christian Counties. The Ray, Gwinn, Edwards and Sharp residences were all adjacent to the Wire Road. The Edgar residence and the Gibson House and Mill were located adjacent to Wilson's Creek. The C.B. Manley, J.T. Manley, and E.B. Short Houses were adjacent to smaller roads.

As parcels of land were purchased and further settled by European Americans during the pre-Civil War period, segments of the landscape underwent significant transformations. Permanent settlers planted small orchards and crops of corn, wheat, and oats. Pasture areas grew in size as did the number of grazing livestock. Once prolific and thriving native warm season grasses of the open savannas were being replaced with non-native cool season weedy species. Not only was there a reduction in the diversity of native plant species comprising the area, but the turning of the soils for crop production caused other major alterations as well. The invention of the steel plow in 1832 facilitated the tillage of the land and thereby accelerated the cultivation of the native landscape. Water falling on the landscape was managed progressively less by onsite infiltration and underground springs, but instead increased on the surface of the land as runoff. Water traveling over the land carried sedimentation, which eventually settled in Wilson Creek's growing floodplain and associated watersheds.

⁷⁴ Personal Reminiscences, 17.



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Figure 11. Early representation of land ownership within Greene County, including some of the area now encompassed by Wilson's Creek National Battlefield (top portions located within sections 23 and 24). Note the number of parcels owned by the railroad.
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Agrarian Use and Development ca. 1838–1861

Figure 12. Additional early representation of land ownership within Greene County, including lands within the current Wilson's Creek National Battlefield, located to the south of the parcels shown in figure 11 (sections 25 and 26). Nothing similar has been identified for current Christian County.

The Civil War, 1861–1865

See figure 13, Historic Period Plan, 1861–1865; and figures 14 through 23, sketches, illustrations, and maps relating to the Battle of Wilson's Creek, which are located at the end of this section, and Appendix B, witness tree data.

On the morning of August 10, 1861, the Union and Confederate Armies fought each other at the battlefield on and around Bloody Hill at Wilson's Creek, Missouri. Prior to this momentous event, there was a substantial amount of military activity in and around the Wilson's Creek vicinity. Union Gen. Nathaniel Lyon and his troops, previously encamped south and west of Springfield, moved to Wilson's Creek, spending a night near William B. Edwards' log cabin on August 1, 1861. The following day the Union Army marched southwest along the Wire Road in search of the enemy, and after a few skirmishes, eventually retreated to Springfield on August 5, 1861. The Confederate Army followed in pursuit, noting that during General Lyon's retreat, his army had laid waste to many of the available supplies within their reach, burning fields of wheat, corn, and oats. Apparently crops belonging to the residents of the Wilson's Creek vicinity were spared, for McCulloch's Confederate forces camped there on August 6, 1861, noting the plentiful wheat, corn and oats.⁷⁵

The 1861 crop for Greene County was quite substantial. L.H. Murray recalled that "the inhabitants, Lyon and Sigel's army, Fremont and Hunter's army, McCullough and Price's army, were all wastefully supplied on its crops for two years, and much of it into the third year. Over \$3,000,000 of claims for quartermasters' stores and commissary supplies to the Army of the Union have been filed against the government by the people of the county for the crop of the year 1861, and no good reason to doubt the justness of any single claim."⁷⁶

C.S.A. Gen. Ben McCulloch made the abandoned house of Larkin D. Winn his headquarters. The Winn (Gwinn) House was situated on a small ridge east of Wilson's Creek, just north of where the Wire Road forded it. The majority of his forces, however, were camped within level areas adjacent to the river; in and around several local farms and springs, particularly the Sharp, Edwards, and Ray properties; and along ridge tops.⁷⁷

On the evening of August 9, 1861, General Lyon's Union Army again advanced to the southwest with the intention of engaging the enemy camped at Wilson's Creek. They camped within two miles of Wilson's Creek and waited for dawn to attack. By 4 am on August 10, the Union Army advanced on unsuspecting Confederate camps and an hour later the conflict had begun.⁷⁸

General descriptions of the larger battlefield landscape from August 1861, and the avenues of approach leading to it, reflect the increasing presence of undergrowth and scrub trees. Hans Christian Adamson described the general lands encompassing Wilson's Creek NB as a valley,

lined on the east with bluffs that often rose steeply to 80 feet before they leveled off to thickly vegetated tableaux. On the west, fringed at its foot by a grassy expanse known as Skegg's meadow, rose the major eminence that gave the area its name,

 ⁷⁵ William G. Piston and Richard W. Hatcher III, DRAFT *Wilson's Creek: The Second Battle of the Civil War and the Men who fought it* (Chapel Hill: The University of North Carolina Press, 2000), 138-145, 150.
 ⁷⁶ Personal Reminiscences, 37.

⁷⁷ Piston and Hatcher, *Wilson's Creek*, 151-154.

⁷⁸ Piston and Hatcher, Wilson's Creek, 186-188.

Oak Hill. From the meadow to the top of this elevation was a distance of about 150 feet. About half of that lifted in gentle slopes cut by ravines and covered by scrub oak, heavy underbrush, and with rocks cropping out near the top.⁷⁹

Another description of the battlefield painted a similar picture.

Opposite our encampment west and northwest rose in a gradual slope a succession of hills extending as far as the eye could reach. The hillside northwest was about three quarters of a mile distant, the intervening space being covered by cornfields in the valley formed by Wilson's Creek. On the north was a slight rise beyond the ravine, covered as usual with a dense undergrowth of black jack and hazel, skirting a large and open corn and hay field.⁸⁰

In 1907, Private Eugene F. Ware of the First Iowa recalled that "Wilson's Creek was in our front, with an easy descending hillside and a broad meadow before us… The hills bore some scattering oaks, and an occasional bush, but we could see clearly, because the fires had kept the undergrowth eaten out, and the soil was flinty and poor."⁸¹

The vegetation surrounding Wilson's Creek varied greatly. Those fields that were not planted in corn, wheat, or oats were covered in waist deep prairie grass. The deep grass provided excellent cover for both armies. As Private Ras Stirman reported, the Union troops "were lying down in the brush and grass until we were within one hundred yards of them, then they opened up on us bringing us down like sheep but we never wavered. …We had to shoot by guess as they were upon the hill lying in the grass."⁸²

Many of the documented accounts of the 1861 landscape describe the battlefield's vegetation as sparsely wooded with grassy ridges. The native savanna vegetation was thus apparently still intact and an important component of the landscape, despite the fact that it would have already begun to suffer from fire suppression and a lack of grazing by bison. While the landscape still maintained an openness, it is likely that non-native and invasive trees, shrubs, grasses, and forbs had begun to appear in greater numbers and the diversity of native species was beginning to decline. The effects of erosion was slowly becoming more evident and the quantity of sedimentation entering streams was increasing.

Particular battlefield features are described with some consistency. Throughout the many accounts of the day of the battle, some penned immediately after the conflict and others written years later, Wilson's Creek is consistently described as a watercourse which was "fordable anywhere and on either side." While the creek itself was shallow in most locations, steep banks on either side led to adjacent 'impenetrable thickets,' described by one eyewitness as 'a jungle of willows and reeds.' The land immediately adjacent to Wilson's Creek, and its tributary Skegg's Branch, were described

⁷⁹ Hans Christian Adamson, *Rebellion in Missouri, 1861: Nathaniel Lyon and his Army of the West* (Philadelphia: Chilton Co. Book Division, 1961), 208.

⁸⁰ W.H. Tunnard, *A Southern Record: The History of the Third Regiment Louisiana Infantry* (Baton Rouge: Tunnard, 1866), 53.

⁸¹ E.F. Ware, *The Lyon Campaign in Missouri* (Topeka: Crane and Company, 1907), 316-317.

⁸² Randolph C. Brant, *Campaign of General Lyon in Missouri: Its Value to the Union Cause* (Portland: Schwab Bros. Printing and Litho. Co., 1895), as cited in Piston and Hatcher, *Wilson's Creek*, 281.

as bottomlands consisting predominantly of oak forest and a dense undergrowth, and described as 'thick woods,' and 'heavy timber.'⁸³

Further back from Wilson's Creek, frequent agricultural fields leading to 'wooded hills' are described as ripe with corn, hay or oats, "a feast for famished man and beast." A majority of the fields described during the battle were planted in corn. By mid-August, the corn was taller than a man and created confusion among troops due to the lack of visibility, but also provided sufficient cover for advancing and retreating unseen. In marching through a cornfield, one eyewitness noted that the enemy shot was aimed well above their heads because they could not be seen and that "many corn-tops fell at our feet and some bayonets were struck." Several of the corn and oat fields were fenced to keep livestock and other unwanted animals out. John Ray's cornfield was noted by several eyewitnesses as surrounded by a rail fence. The Hoelcke and Boardman battlefield maps also document fences surrounding Gibson's oatfield, Gwinn's orchard, and Sharp's cornfield. On August 10, 1861, the fence rails also served as defensive covers and positions to be held.⁸⁴

Bloody Hill commanded a strategic view of the area, and because of the intense battle fought there, it was one of the most frequently described natural features. In 1861, the summit was described as "almost bald, with scattering brush and an occasional tree," and "bare and imbedded with rock and gravel." Its ascent is described in various reports as "sides …scored with ravines, the rock comes to the surface in many places," and "covered with stunted or scrub oak trees." Generally, much of the flora present at Bloody Hill in August of 1861 was described as brush or scrub and small trees about as tall as a man, thick in many places, and locally referred to as blackjack oak and hazel. A sketch entitled the 'Death of General Lyon,' produced shortly after the battle, verifies the small stature of the trees. Notations record that 'small oak trees' only 15 to 25 feet tall were scattered around the Bloody Hill battlefield. (See *figure 18*).⁸⁵

The Wire Road, while convenient, was extremely dusty, particularly when traveled by several thousand troops. During their marches to and from Springfield the week prior to the battle of Wilson's Creek, the extremely dry conditions made travel uncomfortable: "the dust covered us to such an extent that a companion could not be recognized except by his familiar voice." The main thoroughfare from Springfield was described as lined with 'trees and brushwood' and 'bushes' in some areas. Smaller farm roads, no less important for military maneuvering, were described similarly. The 'narrow by-road' leading to John Ray's cornfield was described as "flanked on both sides by the thickest kind of underbrush, and on one side by a rail fence."⁸⁶

According to battlefield maps drawn after the war, a network of smaller farm roads led to and from the Wilson's Creek valley. Battlefield maps drawn by William Hoelcke and V. Boardman of the Wilson's Creek vicinity in 1885 document numerous minor roads connecting the scattered farm houses and fields. Most of these roads followed the topography where it was forgiving, along ridge tops, down ravines, and adjacent to flat riverine bottomlands. The Little York Road from the north, which General Lyon took from Springfield, passed the E.B. Short farmstead and skirted Bloody Hill to the east. It then forded Wilson's Creek and led easterly around the Ray cornfield where it

⁸³ "Landscape References," Ms. in vertical subject files, Wilson's Creek NB Library, 1-6. While it is presumed that Wilson's Creek was fordable everywhere by infantry or cavalry, it is likely that heavier equipment had to cross at specific fords.

⁸⁴ "Landscape References," Ms. in vertical subject files, Wilson's Creek NB Library, 1-6; Hoelcke, "Map of the Battlefield of Wilson's Creek, Mo." 1885; Boardman, "Map of the Battlefield of Wilson's Creek," 1885.

⁸⁵ National Park Service, "Landscape References," Ms. in vertical subject files, Wilson's Creek NB Library, 1-6; Bearss, "Historical Base and Ground Cover," 49.

⁸⁶ "Landscape References," Ms. in vertical subject files, Wilson's Creek NB Library, 1-6; Piston and Hatcher, *Wilson's Creek*, 139.

intersected the Wire Road at John Ray's residence. An unidentified major north-south road followed the division line between Sections 23 and 24, passed the Gibson House and Mill on the east in a southerly direction and led down to the east side of Wilson's Creek. It then followed Wilson's Creek until its intersection with the Wire Road. After following the path of the Wire Road south, the Little York Road branched off at its intersection with the Section 35 and 36 division line at Joseph Sharp's residence and proceeded due south around his cornfield and then east to John Dixon's farmstead south of and adjacent to the battlefield. Several smaller east-west roads followed the level ground adjacent to the tributaries of Wilson's Creek. One of these entered the battlefield vicinity from the west, paralleling Skegg's Branch passing just north of and below Joseph Sharp's residence until its intersection with the Wire Road. It crossed the Wire Road and forded Wilson's Creek and then proceeded east up Manley Branch, passing the Manley farmstead.⁸⁷

Due to the intensity of the day's battle, several farms and house sites were damaged or destroyed. In particular, those houses that were occupied as major Union or Confederate positions suffered the most damage. Upon returning to his residence, which had been both a Confederate and Union position, Joseph D. Sharp found his house destroyed. A grandson later described it as a 'broken and ruined home.' The Larkin D. Winn (Gwinn) House was also severely damaged. Upon returning to his home after the battle, Winn found it seriously damaged, requiring him to seek alternative shelter with neighbors. Other farms, including the E.B. Short and John A. Ray complexes, suffered minor damage. Dubois' battery fired at least three shells in the direction of the Ray House. Two landed unexploded in the yard and a third struck the Ray chicken house. In general, outbuildings, fences and other small-scale features were destroyed by the advances and retreats of troops, by artillery and small munitions fire, and to provide wood as fuel for cooking fires. Cornfields that had not been harvested were gleaned of their produce by hungry troops, beehives were robbed of their honey, and any cattle, hogs or chicken that were not driven off were slaughtered by the Confederate Army.⁸⁸

After the Confederate Army drove General Lyon's troops from the field, treatment of the wounded and burial of the dead began. The Confederate Army immediately began to bury their own dead while a smaller group of Union soldiers remained behind for a day to handle the Northern dead. Confederate dead "were all carefully and decently buried upon the bank of Wilson Creek." Another eyewitness described the Confederate graves as "thickly scattered along the bank of the Creek for a mile or more." The day after the battle the long process of burying Federal troops in mass, unmarked graves was begun. This took several weeks to complete and the battlefield's scattered sinkholes, particularly those nearest the heaviest fighting, were chosen as convenient graves. An entry made by John Gibson in the back of the Gibson family Bible notes that the Confederates "finished burying all the dead they could find on the 18th." However, several eyewitness accounts of the battlefield soon after the armies left describe an area that still had numerous scattered human and animal remains. In 1911, William Steele noted that "the histories of this battle say the dead were buried. Some of them were. But days afterward I saw bodies here, dozens of them. Many were never buried. Their skeletons lay bleaching here in the sun for years afterward." The same year, John Short, son of E.B. Short, recalled that several animals and bodies near their house lay exposed for six weeks. Three repositories are known to have held Federal bodies. Adjacent to the Sharp farm, "the bodies of those that fell in the road near [Sigel's] battery had been thrown to the side of the road and were festering in worms and the advanced state of putrification; it was horrible and loathsome beyond description." Records of reburial efforts

⁸⁷ Hoelcke, "Map of the Battlefield of Wilson's Creek, Mo." 1885; Boardman, "Map of the Battlefield of Wilson's Creek," 1885.

⁸⁸ Piston and Hatcher, *Wilson's Creek*, 221; "Sharp Family," Ms. in the vertical subject files, Wilson's Creek NB Library; "Gwinn Family," Ms. in the vertical subject files, Wilson's Creek NB Library; Bearss, "Ray House," 20.

conducted in 1867-68 suggest that Federal Army casualties were removed from two sinkholes, identified as 'Pit A' and 'Pit B,' and one 'old' well on the Wilson's Creek battlefield and reinterred in Springfield National Cemetery. According to the records, both sinkholes were located in the vicinity of the southeastern or eastern slope of Bloody Hill. The well may have been located near the Sharp farmstead and could likely have been associated with it.⁸⁹

Post-battle accounts of the battlefield all describe a scene of carnage where both natural and cultural features were indiscriminately destroyed. Visiting the battlefield on August 12, 1861, William J. Rountree and two friends noted that "dead men and dead horses were scattered all over the field of battle, lying under the scorching rays of the August sun. The men were decayed and as black as Negroes. They had to be buried where they fell by digging a shallow grave and rolling them in." At the E.B. Short residence, soldiers' bodies and horse carcasses surrounded the farmhouse and were not removed for six weeks. Mrs. Ollie Bruton, who was four years old at the time of the battle, in 1930 recalled that at the Ray House some of the bodies were left on the field for six days before being removed.⁹⁰

For several years after the conflict, the vegetative landscape continued to show signs of battle fatigue. On October 31, 1861 correspondents reported that "the trees were scarred with bullets, and hundreds were felled by artillery." In December of the same year, other soldiers noted that "there were trees larger than a man's body cut down by cannon balls, and the smaller trees were filled with balls of every description. Observed a large tree where a cannon ball had passed through it leaving it still standing." In February of 1862, Ephraim M. Anderson noted that "the trees bore evidence of hard fighting many of them being marked by artillery, and none but some of the smallest bushes had escaped the fire of small arms." In October of 1862, a Union soldier described a similar scene, "the trees and saplings showed scars of cannon and musket balls."⁹¹

In December 1861, a joint resolution was passed by Congress recognizing the heroic efforts of Gen. Nathaniel Lyon and his troops and commemorating the Battle of Wilson's Creek. The resolution recognizing the sacrifice of General Lyon and his men was read to all Federal troops. Wilson's Creek was one of only five battles to receive this distinction.⁹²

Soon after the Confederate Army abandoned Wilson's Creek, an informal memorial to General Lyon was established on the spot where he died. The memorial consisted of a pile of field stones and river cobbles, many of which had the names of veterans and visitors etched on them. There is no information as to who first established the memorial, Union soldiers or regional residents. However, only fifteen months after Lyon's death, the memorial was considered "a sacred spot,"

⁹² Laura Hazelwood, ed., DRAFT "Legislative History of the 1960 Enabling Act of Wilson's Creek National Battlefield and the Amending Act of 1970," Ms. on file in the Wilson's Creek NB Library.

⁸⁹ Bearss, "Historical Base and Ground Cover," 85; "Sinkhole," Ms. in the vertical subject files, Wilson's Creek NB Library; *Record of Disinterrments and Reinterrments*. (Springfield National Cemetery, Springfield, Missouri, 1867-1868); "Wilson's Creek, Missouri: Field of Blenheim," 8/6/1911; "Post Battlefield Visits," Ms. in the vertical subject files, Wilson's Creek NB Library; 'Diary of Lyman Gibson Bennett,' 23 February 1862. *Christian County Historian* 11 (No. 1, Summer 1988): 14; "From Springfield, Mo.," *Olathe Mirror*, October 24, 1861, as cited in Piston and Hatcher, *Wilson's Creek*, 301.

⁹⁰ William J. Rountree, "Pioneer Life on the Joseph Rountree Farmstead." Ms. in the vertical subject files. Wilson's Creek NB Library; "E.B. Short," Ms. in the vertical subject files, Wilson's Creek NB Library; "Ray House and Family," Ms. in the vertical subject files, Wilson's Creek NB Library.

⁹¹ Albert D. Richardson, *The Secret Service, the Field, the Dungeon and the Escape* (Hartford: American Publishing Company, 1865), 203-204; Griffin Frost, *Camp and Prison Journal* (Camp Pope Bookshop, 1994), 4-5; Bearss, "Historical Base and Ground Cover," 50; William H.H. Clayton, *A Damned Iowa Greyhound: The Civil War Letters of William Henry Harrison Clayton*, Donald C. Elder III, ed. (Iowa City, University of Iowa Press, 1998), 32.

and was well on its way to becoming a significant sized cairn. In November 1862, a part of the Union Army was encamped near Wilson's Creek. An unknown correspondent recorded that "the place is marked by a huge pile of flat stones placed there by soldiers who visit the spot and on which are rudly [sic] carved the name of the one who placed it there." First Sgt. Benjamin McIntyre was also camped near Wilson's Creek and visited the memorial. "A notice on the spot requests of every soldier visiting the place to haul one stone – stone is plenty near by and if this request could be carried out to any considerable extent the pile must soon be an immense one. …A little clump of trees, five in number, but growing from the same clump only a few yards distant is where the Hero died." Corporal W.O. Gillick, also camped at Wilson's Creek during the same period, wrote to his sister that, "I also added one stone to the pile that marks the spot where General Lyon fell."⁹³

In the weeks and months following the battle, some areas of southwestern Missouri reported that 'bushwackers,' small rogue groups of Confederate soldiers, had robbed and damaged the residences of several Union sympathizers. However, no bushwacker activity has been documented within the Wilson's Creek vicinity.⁹⁴

Agricultural fields were probably the first to recover from the battle carnage. Within a year after the battle, farmers whose fields were not still scattered with bodies had begun reporting crops. In the late summer of 1862, E.B. Short reported that soldiers from Brig. Gen. Egbert B. Brown's command entered his fields and took a substantial amount of corn. In November of the same year, soldiers from General Herron's division camped at Moody's Spring requisitioned 200 barrels of corn. Requisitions of food and supplies for Federal troops were common practice. In most cases receipts were given for produce that was taken.⁹⁵

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⁹³ Bearss, "Historical Base and Ground Cover," 87; Elsa Vaught, ed., The Diary of an Unknown Soldier, September

^{5, 1862} to December 7, 1862 (Van Buren, AR: Press-Argus Print Co., 1959), 36.

⁹⁴ "Short Family," Ms. in the vertical subject files, Wilson's Creek NB Library.

⁹⁵ Bearss, "Historical Base and Ground Cover," 33-34.

The Civil War 1861–1865



Figure 14. Sketch of the Wilson's Creek battlefield, as seen from behind Pearce's camp on the east side of the creek.



Figure 15. Sketch of Bloody Hill from the east.

The Civil War 1861–1865



Source: see Bearss

Figure 16. As captioned in Ed Bearss' *The Battle of Wilson's Creek*: "Colonel Sigel forcing his prisoners to draw off his cannon at the Battle of Wilson's Creek."



Source: see Bearss

Figure 17. As captioned in Ed Bearss' *The Battle of Wilson's Creek*: "As General Lyon led the Second Kansas into battle, a volley of gunfire broke from the left. Lyon was struck in the heart and died as he slowly dismounted. He was the first general officer to be killed in the Civil War."

The Civil War 1861–1865



Figure 18. Detail from a sketch of the Union artillery at Wilson's Creek by Henry Lovie. The sketch is annotated with information about the battle and associated landscape conditions. One notation records that 'small oak trees from 15-25 feet high' were scattered around Bloody Hill.

The Civil War 1861–1865



Source: Battles and Leaders of the Civil War, Vol

Figure 19. Nineteenth-century interpretation of the Battle of Wilson's Creek.

The Civil War 1861–1865



Figure 20. 1885 engraving of the Wilson's Creek Battlefield, prepared by Federal military engineer Wm. Hoelcke, Captain & Addl. A. de C., Department of the Missouri.

The Civil War 1861–1865



Figure 21. A second late-nineteenth-century interpretation of the landscape and troop movements associated with the 1861 Battle of Wilson's Creek, prepared by V. Boardman, Capt. Battery M, 2nd Missouri Light Artillery.

The Civil War 1861–1865



Figure 22. Sketch of the Wilson's Creek battlefield from the journal of Captain Albany C. Bradford, Co. H, Second Missouri Cavalry, 8th Division, Missouri State Guard.

The Civil War 1861–1865



Figure 23. Sketch of the Wilson's Creek battlefield, sent with a letter: "Dear Brother David enclosed I send you a picture of the battle of Wilsons C just at the time when our battery had a masking fire on the rebels the cannon on the left is Tottens battery the first reg is the 1st Kansas next is 2d Kansas next is Missouri boys when we retreated we were marched right back over the hill back of the battery write soon I am most well your brother A Tinkham."

[Andrew Tinkham, Co. F, 1st Kansas Infantry]

Post-war Agrarian Use, 1865–ca. 1905

See figure 24, Historic Period Plan, 1865–ca. 1905; figures 25 through 28, photographic views of the site; figures 29 through 31, details of atlases and road returns associated with Greene County; figures 32 through 41, additional photographic views of the site; and figure 42, detail of a 1904 plat of Greene County, which are located at the end of this section.

Soon after the war ended, the federal government initiated efforts to formally rebury the Union dead at Wilson's Creek. In 1867, a National Cemetery was established in Springfield, Missouri. During the winter of 1867-68, the federal government proceeded to remove bodies from the two sinkholes and one well. The smallest sinkhole, adjacent to General Lyon's cairn, was described as an "irregularly shaped pit, or sinkhole, nineteen feet by twelve feet with a bearing lengthways northeast and southwest." The remains of approximately thirty individuals were removed from this sinkhole. "No remains were disturbed until the earth had been carefully scraped away and each 'layer' exposed to plain view, in order that each skeleton could be traced out, and the proper parts comprising it taken up. The utmost care and tenderness which such a delicate duty demands were exercised, and the remnants of clothing (very few) carefully examined for any evidence of identification. Except in occasional instances, which are dutifully recorded, nothing could be found toward identifying any of these soldiers. They were buried weeks after death, and were then very much decomposed, and in many cases stripped of all clothing." Excavations from a second, larger sinkhole, described as an "oblong hole, twenty feet by fourteen feet with a bearing lengthwise east and west," recovered the remains of seventy-two additional individuals. Lastly, the remains of 16 individuals were recovered from an old well located near 'General Sigel's battery' that had been used as a burial container. "The remains disinterred from this old well had been thrown in without regard to order or decency. ... It is impossible to describe their relative positions with any accuracy." After recovery, the unidentified Union remains were brought to the Springfield National Cemetery in Springfield, Missouri for proper ceremonial burial in individual graves.⁵

Apparently Federal casualties were also buried on property owned by Caleb Manley. No members of the Manley family were buried in the Manley cemetery until 1872 when Caleb died. However, several marked but unidentified graves suggest that at least 30 individuals were once interred there. It is also reported that officials removed several Union dead from the Manley cemetery 'in the late nineteenth century' for burial in the Springfield National Cemetery.⁹⁷

After 1865, interest in the Battle of Wilson's Creek and visitation to the battlefield increased. In June of 1865, the first effort to commemorate the battle of Wilson's Creek was initiated in Springfield, Missouri, but was never realized. By 1896, initial efforts to establish a national park at Wilson's Creek were begun. U.S. Congressman Courtney W. Hamlin from Springfield, Missouri, introduced a bill in Congress "to set aside the battlefield as a national monument." Over the next 34 years, ten bills were sponsored in Congress for establishing Wilson's Creek as a National Military Park under the management of the War Department. Each one failed.⁹⁸

The first reunion of Veterans from the Battle of Wilson's Creek was held in Springfield in 1883. Among the dignitaries invited was President Ulysses S. Grant. Veterans and other visitors met in

⁹⁶ "Sinkhole," Ms. in the vertical subject files Wilson's Creek NB Library; Bray, 1996 "Inventory and Evaluation," 27-28, 32.

⁹⁷ Ray and Monk, "Archeological Survey of Tree Removal Zones," 15-16.

⁹⁸ Park Historian Notes, DRAFT "History of Wilson's Creek National Battlefield." Ms. in the vertical subject files, Wilson's Creek NB Library, 2-3.

Springfield, celebrated the unveiling of a monument there to Gen. Nathaniel Lyon, and were then transported to the battlefield by train and wagon. Several thousand people were camped at the battlefield when the veterans arrived and "wagons, places of amusements, refreshment stands, etc. were scattered …over an area of nearly two miles. …A stand …was erected a few hundred yards from Bloody Hill, on the spot where the patriot Lyon fell amidst the din of battle."⁹⁹ Among the participants at the 1883 reunion, veteran J.F. Snyder noted that "the place has changed very little in appearance. …and only in the growth of the blackjacks and bushes."¹⁰⁰

John M. Gibson continued to operate his mill at Wilson's Creek. An 1870 roster of mills listed him as operating a mill with a twenty-three inch wheel and a sixteen foot fall. John Gibson is listed in the 1870 population census as a 'miller' with real estate valued at \$6,000. In addition, an 1876 plat book of Greene County landowners documents that John Gibson still owned forty acres surrounding his mill and house. The history of Gibson and his mill property after 1876 is unclear. Sometime between 1876 and 1881, Gibson's Mill was sold to Reuben A.M. Rose. According to family history, Reuben Rose lent the Gibsons \$5,000. Gibson was never able to repay the money and Reuben Rose subsequently received his property through foreclosure. It is also likely that during this period, the Gibson House burned, as several Rose family members verify that when they owned the mill, there was no house standing. An 1881 probate record of Reuben Rose's estate indicated that he paid \$1 for sharpening a mill pick, and that he received \$9.90 as 'rent for mill.' The 1890 census records that Rose's Mill had been destroyed by fire, suggesting that sometime after Reuben Rose's death in 1881, the mill property burned.¹⁰¹

Soon after the war ended, Joseph D. Sharp and family moved to Howell County and eventually sold a majority of their land near Wilson's Creek to William F. Steele. It is not clear when William F. Steele purchased the former Sharp residence. A 1911 newspaper article celebrating the 50-year anniversary of the battle recorded that Steele had "lived in that house and tilled that battle field for thirty years." This would suggest an occupation date of ca. 1880-81. A majority of the historic material culture archeologically recovered from the Steele residence dates to the period 1880–1920 and appears to verify this date.¹⁰²

Despite fleeing Greene and Christian Counties, Joseph D. Sharp continued to own some land in the Wilson's Creek vicinity. Christian County personal property tax records from 1875 record that he owned 160 acres in Section 36 for which he was taxed \$2.48. It is not known whether he rented these lands out or farmed them himself.¹⁰³

In 1872, Caleb Manley died. It is likely that the Manley family cemetery, a 64-by-100 foot plot located in the southeastern quarter of the southwestern quadrant of Section 25, was established at this date. A total of ten individuals, including members of the Manley, Howe, Jennings, and Prunty families are known to be buried there. A substantial number of unmarked graves, between thirty-five and fifty-seven in number, were also noted to have existed. The first map to show the location of the Manley cemetery is a 1904 Greene County plat book.¹⁰⁴

 ⁹⁹ "Reunion in Friendship: Blue and Gray together again at Wilson's Creek." [Newspaper Article] St. Louis,
 8/10/1883. "Reunions and Commemorations," Ms. in the vertical subject files, Wilson's Creek NB Library.
 ¹⁰⁰ Bearss, "Historical Base and Ground Cover," 90.

¹⁰¹ "Gibson Family," Ms. in the vertical subject files Wilson's Creek NB Library.

 ¹⁰² "Wilson's Creek, Missouri: Field of Blenheim," 8/6/1911; Bray, 1966 "Inventory and Evaluation," 21.
 ¹⁰³ Personal Property Tax Lists, 1875, Christian County, Christian County Museum, Ozark, Missouri.

¹⁰⁴ "Manley Family," Ms. in the vertical subject files, Wilson's Creek NB Library; Greene County Plat Book, 1904, Township 28, Range 23. The Manley cemetery, or at least the designation of the site as a formal burying area, may have been established in late 1861 as it is believed that several Union dead may have been buried there after the conflict.

In 1875, John Ray died followed a year later by his widow Roxanna Ray. In 1876, the Ray estate, including the Ray House, was sold to the highest bidder, a Matthew Alexander.¹⁰⁵

Also in 1875, lead and zinc were discovered about one mile south of the town of Brookline, and about three miles due north of the park's northern boundary. As Holcombe reported in 1883, "considerable mining has been done here and in other parts of the township, and ought to be continued in a more thorough manner and on a more extensive scale." In 1882, a significant part of the John and Roxanna Ray estate was purchased from Matthew Alexander by Richard W. Stevens, James M. Ryrie, and Aaron O. Auten. The following year Stevens, Ryrie, and Auten formed the 'Wilson Creek Mining and Smelting Company.' The purpose of the company was to "mine various kinds of ores and reduce and smelt the same; and to carry on general merchandise in connection therewith and independently and to purchase and sell sheep, cattle, horses, and mules and generally to carry on the stock business, to build saw and grist mills and operate the same by steam or water power and to carry on the milling business generally." It is not known whether the Ray House was occupied as a residence during the last quarter of the nineteenth century. Stevens, Ryrie, and Auten may have purchased parts of the Ray estate for the potential minerals it contained. In a 1981 interview, Gertie Wilhite, a former resident of the Town of Wilson Creek, recalled that "there was an uncultivated, uninhabited tract of land between us and Wilson's Creek. And these miners stayed at our house and they dug shafts and, I don't remember, but I think they were digging for lead. But it didn't pan out. They didn't find any ore. But that was on the old Link, it was owned by a man in Springfield and his name was Link." A 1904 plat map of Greene County, Township 28, Range 23, documents that the 'Link Milling Company' owned 160 acres, 80 acres in the northern half of the northeastern quadrant of Section 26, and 80 acres in the southern half of the southeastern quadrant of Section 23. A map of the Wilson's Creek battlefield produced ca. 1900 shows an area in the vicinity of the E.B. Short home site labeled as 'lead mines.' By 1904, the Ray House and property had been sold to John McConnell.¹⁰⁶

In the decade after the Battle of Wilson's Creek, Greene County plat maps record that few new property owners purchased lands and built homes in the vicinity. By 1876, a J.N. Russell had purchased 40 acres in the southwestern quarter of the northeastern quadrant of Section 23 and built a residence there.¹⁰⁷

The ca. 1900 map of the Wilson's Creek battlefield also documents two previously unknown residences, presumably established during the late nineteenth century. A structure identified as 'Charley Manley's House' is shown located approximately in the southeastern quarter of the northeastern quadrant of Section 26. In addition, a structure identified as 'Cudenell's House' is located in the southeastern quarter of the southeastern quadrant of Section 26 in the general location of the subsequent Glidewell residence.¹⁰⁸

By the end of the period, plat maps show that new property owners continued to build residences within the future park boundaries throughout the late nineteenth century. A 1904 Greene County plat map shows that M. Moonyham purchased 40 acres and built a residence in the southeastern quarter of the southeastern quadrant of Section 23, while W.C. Short also built a residence in the northwestern quarter of the southwestern quadrant of Section 23. A W.B. Robertson is shown as

¹⁰⁵ Bearss, "Ray House," 76.

¹⁰⁶ Bearss, "Ray House," 76, 78-79; Holcombe, *History of Greene County*, 673; Hayward Barnett, "The Town of Wilson Creek," Ms. in the vertical subject files, Wilson's Creek NB Library; Greene County Landowners Plat, 1904, Township 28 Range 23; Youngblood, "Wilson's Creek Battle Ground: Showing the Positions of Both Armies," ca. 1900.

 ¹⁰⁷ "Township 28 North, Range 23 West of 5th Principal Meridian," from *An Illustrated Historical Atlas*, 1876.
 ¹⁰⁸ Youngblood, "Wilson's Creek Battle Ground: Showing the Positions of Both Armies," ca. 1900.

owning a residence in the southeastern quarter of the southwestern quadrant of Section 23, and I.F. Edgar as having a residence in the northeastern quarter of the southeastern quadrant of Section 23. Further south, J.B. Stewart owned a residence in the southeastern quarter of the northwestern quadrant of Section 25, while W. McCroskey maintained a residence in the northwestern quarter of the southwestern quadrant of Section 25.

In addition, new property owners occupied existing houses. The 1904 atlas documents that O.B. Manley occupied the C.B. Manley House in the southeastern quarter of the southwestern quadrant of Section 25. J.F. Edgar occupied the Edgar House in the northwestern quarter of the southwestern quadrant of Section 24. J.B. Crow occupied the E.B. Short House in the northwestern quarter of the southeastern quadrant of Section 23. W. Glidewell occupied the residence labeled as 'Cudenell's house' on the ca. 1900 John A. Youngblood map.¹⁰⁹

Census statistics from 1870–1900 document that farming continued to be the dominant occupation of residents in Greene and Christian Counties. However, the quantity of non-farming occupations increased. In the decades immediately following the war, 'laborer' and 'railroad hand' were common occupations for men, and 'seamstress,' 'domestic servant,' 'weaver,' and 'spinner' were common occupations for women.¹¹⁰

Throughout the late nineteenth century, the region including southwestern Missouri was predominantly agricultural. In a description of the Springfield area, an 1889 handbook reported that "wheat is at home in all these soils, as in all limestone counties. ...The yield per acre ranges from 15 to 40 bushels according to soils and culture. ...and the annual wheat product of the region is greater than the total wheat crop of the six New England states, or Delaware, Mississippi, Florida, Nevada, Colorado, New Mexico and Arizona. ...Corn is the king of the grasses here. ...It is a universal crop ...from 30 to 90 bushels per acre." Agricultural statistics from Greene and Christian Counties throughout the late nineteenth century verify the dominance of wheat and corn.¹¹¹

Within Wilson Township, Greene County, there were 21 black households in 1870. These included the Rony, Brown, Harmon, Gray, Parks, Ayres, Benjamin, Powell, Sharp, Anderson, Weaver, Mitchell, Wallace, Ridge, Higgs and Nowlin families. Like white residents, black residents of Greene County were predominantly farmers. A black-owned and operated washing and ironing business employed several Wilson Township residents. Population statistics suggest that there were several concentrations of black residences within Wilson Township in 1870, a trend that likely continued up through the end of the nineteenth century.¹¹²

It is unclear how much the formal and informal road system in the vicinity of Wilson's Creek changed in the two decades subsequent to the conclusion of the Civil War. The earliest non-battle-related map of the Wilson's Creek area comes from an 1876 Greene County Historical Atlas. The atlas shows the Section divisions and property owners for Greene County; however, only a few major roads are portrayed. Within the Wilson's Creek vicinity, the only road shown leads from John Gibson's mill seat west to its intersection with the Alexandria and Pacific Railroad, the Marionville Road, and the small town of Republic, Missouri. Within Wilson's Creek, the road followed the division line between Sections 23 and 26. With a direct link to a railroad and the

¹⁰⁹ Greene County Plat Book, 1904, Township 28, Range 23.

 ¹¹⁰ Ninth Census of the United States, 1870. Population Schedule, Greene County, Missouri. M593, Roll 777;
 Tenth Census of the United States, 1880. Population Schedule, Greene County, Missouri. T9, Roll 687; Ninth Census of the United States, 1870. Population Schedule, Christian County, Missouri. M593, Roll 769; Tenth Census of the United States, 1880. Population Schedule, Greene County, Missouri. T9, Roll 681.
 ¹¹¹ A Handbook of Springfield Missouri and Surroundings (Chicago: C.S. Burch Publishing Co., 1889), 6.

¹¹² Ninth Census of the United States, 1870. Population Schedule, Greene County, Missouri. M593, Roll 777.

nearest town, the map suggests that Gibson's Mill may have been a significant processing center for the region's agricultural produce. Most notably, the Wire Road, which was still a major thoroughfare through the area at the time, is not shown.¹¹³

During the forty years between 1878 and 1908, the old Greene County roads running through and adjacent to the Wilson's Creek vicinity were realigned to reflect property divisions and section lines. An 1879 Road Plat Book compiled by an order of the Greene County Court shows more distinctly the intricate system of major and minor roads present in the vicinity of Wilson's Creek. The road plat book shows that most of the major roads through the Wilson's Creek vicinity ran east-west. Four roads significant to Wilson's Creek are shown: the Old Wire Road; an unnamed road following the division lines between Greene and Christian Counties and Sections 35, 36 and 25, 26; the aforementioned road from Gibson's mill leading west to Republic and following the division line between Sections 25, 25 and 24, 23; and an unnamed road following the division line between Sections 24, 23 and 13, 14.

In 1888, W.C. McCroskey and other property owners petitioned the Greene County Court for a change in the Wire Road. Attached to the petition was a map detailing the proposed realignment. A new road, thirty feet in width, was to be surveyed and marked out, "commencing at the [Wilson's Creek] ford on said road running due west 120 yards to line of Section 25 and 26 all in Township 28, Range 23, then due south one quarter mile where it again intersects said Wire Road." The reasons for this petition are unknown, although McCroskey's motives may have been agriculturally related. By moving the route of the Wire Road west to the division line between Sections 25 and 26, McCroskey succeeded in uniting a small agricultural field west of Wilson's Creek, which had previously been split by the public road. This presumably would have been more convenient for him and resulted in a larger number of acres of prime agricultural bottomland. A Greene County Plat Book from 1904 confirms that this realignment was carried out.¹¹⁴

By April 1897, W.C. McCroskey again petitioned the Greene County Court, this time to establish a new road. Attached to the petition was a map detailing the proposed route. The road was to begin on the dividing line between Sections 25 and 26 where the Wire Road forded Wilson's Creek, and then proceed north to the half division line of Section 26, west to the quarter division line of the northeastern quadrant of Section 26, north to the center of the northeastern quadrant of Section 26, and then west to the 'Brookline and Republic' road and the current western boundary of the park. The route proposed for the new road followed the northern boundaries of the W. Glidewell and J. Manley properties; it also conveniently led travelers to the center of Bloody Hill and the spot where General Lyon died. It is not known when the road construction was completed, but during August 1897 a large reunion was held on the battlefield at Wilson's Creek. This suggests that the road may have been constructed to facilitate access to the battlefield for visitors. A Greene County Plat book from 1904 confirms that the new road was constructed.¹¹⁵ Shown on the road return along the eastern edge of the current park boundary is the Capernaum School.

The map attached to the 1897 road petition also shows a major north-south road separating Brookline and Republic townships. In addition, several minor roads are shown running east and south of the Wire Road in the vicinity of the John and Roxanna Ray property. A substantial eastwest road just south of the Ray House is shown originating at an intersection with the Wire Road in the northwestern quadrant of Section 25 and running east to the eastern border of Section 25. A

 ¹¹³ "Township 28 North, Range 23 West of the 5th Principal Meridian," from *An Illustrated Historical Atlas*, 1876.
 ¹¹⁴ "Greene County Road Petition," Book K, April 26, 1888: 457. Greene County Records and Archives Center, Springfield, Missouri.

¹¹⁵ Greene County Road Petition, Book U, April 5, 1897: 273-274. Greene County Records and Archives Center, Springfield, Missouri.

smaller farm road breaks off from this road at its westernmost point and extends south to the division line between the northeastern and southwestern quadrants.¹¹⁶

In 1903, James M. Ryrie sold part of his property to the Greene County Court to establish a highway. The road, possibly a previously existing farm road, was a fifteen foot wide strip of land located "on the west side of the northwestern quarter of the northeastern quadrant of Section 25." Five years later John McConnell, the new owner of the John and Roxanna Ray estate, is recorded as selling the same piece of road to Greene County. The road was likely a short section located north of the Ray House and extending from its intersection with the Wire Road to the division line between Sections 24 and 25.¹¹⁷

By 1904, the first Greene County plat book of the twentieth century shows that, by and large, the major roads developed or altered after the Civil War tended to follow the Section division lines. Several major roads are noted which bisect the Wilson's Creek vicinity. On the northern edge of the battlefield Farm Road 182, an east-west road following the half section division lines of Sections 23 and 24, borders the northern edge of park property. A second east-west road bisected the northern one-third of the battlefield, running from the Cumberland Presbyterian Church located on the current Highway ZZ, east across Wilson's Creek where it crossed the Wire Road south of the Ray House. This road ran directly through the center of the Bloody Hill area. A third road ran in a north-south direction along the western half of Section 23 until it hit the division line for Section 26, then ran east to the one half section division line of Section 26, and then due south again paralleling the northern side of Skegg's Branch, crossing to its south side and terminating at an intersection with the Wire Road. A fourth road entered the battlefield area from the west and paralleled the Greene and Christian County line, terminating at its intersection with the Wire Road.¹¹⁸

In March 1897, journalist F.E. Herrick took his camera and visited the Wilson's Creek battlefield. The photographs he took were to be used in a special edition of a St. Louis paper. He walked the battlefield with William Steele and was shown the 'notable places.' From his description, it appears that the vegetation in the vicinity of the battlefield had somewhat recovered. He noted that near the sinkhole, "the battlefield was mostly solid limestone rock with scarcely any vegetation except some stray cactus. Some trees still show the marks of cannon balls." Bloody Hill received a similar description consisting of "solid limestone rock formation, there being scarcely a sign of vegetation except small cacti and scrub oak growing in the seams of the rock." Herrick also visited the informal stone pile monument where General Lyon died. However, instead of putting a rock on the pile, Herrick reported that "we secured relics from the stone pile.' This suggests that, by the last few years of the nineteenth century, the stone pile monument to General Lyon may have slowly begun to disappear as visitors took individual pieces as souvenirs.¹¹⁹

Later in the same year, another major reunion of Veterans was held at Springfield, Missouri, which included a 'pilgrimage' to the Wilson's Creek battlefield. The reunion was described as 'the largest ever,' and several thousand visitors camped at Wilson's Creek the night before. "Two distinct camps were on the field, one where Lyon fought and the other on the Sharp farm, where Sigel lost his guns. Over the battlefield the veterans wandered in search of some familiar landmarks, but time and failing memory left but few features the survivors could recognize. ...The rude stone monument piled up where the Union commander died was the chief feature of interest to the

¹¹⁶ Greene County Road Petition, Book U, April 5, 1897: 273-274.

¹¹⁷ Bearss, "Ray House," 81.

¹¹⁸ Greene County Plat Book, 1904, Township 28, Range 23.

¹¹⁹ "Post Battlefield Visits," Ms. in the vertical subject files, Wilson's Creek NB Library.

visitors. A flag floated over this memorable spot and all day long the crowd stood around the sacred heap of native limestone."¹²⁰

In 1908, John McConnell deeded to the directors of the local school district one acre "in the northwestern corner of Section 25, lying 15 feet east of the half section line and running north and south through Section 25." The school directors were to build "a good and substantial fence around the said acre and keep it in good repair." Later in the same year, McConnell also deeded to the school district another parcel adjacent to the one acre school lot "in the northwestern corner of the northwestern quarter of the northeastern quarter of Section 25, cut off by the Missouri-Pacific Railroad, and adjacent to the school house. A 1926 topographic map indicates that the Capernaum School was subsequently built in this location.¹²¹

¹²⁰ "Wilson's Creek Reunions, #1," Ms. in the vertical subject files, Wilson's Creek NB Library.
¹²¹ Bearss, "Ray House," 82; Russell and Axon, Civil Engineers, "Topographical Map of Wilson Creek Battlefield," Springfield, MO: December 1926.



Figure 25. A rock pile slowly grew on the site of General Lyon's death. The rocks were placed there by soldiers, veterans, visitors, and local residents. Photo ca. 1897, likely taken before the 1897 reunion.



Figure 26. A veterans reunion at Wilson's Creek during the third quarter of the nineteenth century, n.d.

> Post-war Agrarian Use 1865–ca. 1905



Source: Wilson's Creek NB library, cat. # 32

Figure 27. After the war, Civil War veterans held numerous reunions in Springfield, some of which involved commemoration of the Battle of Wilson's Creek. Many veterans made a pilgrimage to the Wilson's Creek battlefield after the ceremonies in Springfield. This rock cairn was formed from stones inscribed by Civil War veterans and placed on the site where General Lyon died. This photo was likely taken in 1897 after the veterans' reunion. The 1928 monument is thought to have replaced this cairn.

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Figure 28. Wilson's Creek Battlefield in distance, hay fields in foreground, undated.

Post-war Agrarian Use 1865–ca. 1905



Figure 29. Various atlases existed for the area during the late nineteenth and early twentieth centuries. This one is for Greene County and is dated 1876. Sections 23-26 in the lower right hand corner encompass portions of Wilson's Creek National Battlefield. Note Ray, Short, Manley, and railroad company ownership at the time.

Post-war Agrarian Use 1865–ca. 1905



Figure 30. In addition to regional atlases, clues about the Wilson's Creek landscape during the nineteenth century are available in road returns like the one shown here, circa 1897.

Post-war Agrarian Use 1865-ca. 1905 J. N M. Roudebush 40



Figure 31. 1904 atlas of Greene County. Note that the battlefield is marked on this atlas in the lower portion of the image.

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Jno.



Figure 32. First Manley family log house at Wilson's Creek, undated.

> Post-war Agrarian Use 1865–ca. 1905



Figure 33. Ray House, June 16, 1882.

Mrs. Bessie ME Elhaney, present owner other two men unknown.



Figure 34. The Ray House, ca. 1897.



Figure 35. Two men on the banks of Wilson's Creek, late nineteenth century.



Figure 36. Men and boys at the pile of rocks on Bloody Hill, ca. 1882.



Figure 37. South slope of Bloody Hill, ca. 1882.



Figure 38. South slope of Bloody Hill, ca. 1882.


Figure 39. View towards Bloody Hill, ca. 1882.



Figure 40. Ford across Wilson's Creek, ca. 1882.



*Figure 41. "*Where General Lyons [sic] fell," ca. 1905.



Figure 42. "Plat of Wilson's Creek Battle Ground," from Youngblood surveys, ca. 1900.

The Railroad Era and the Town of Wilson Creek, ca. 1905–1928

See figure 43, Historic Period Plan, 1905–1928; figures 44 through 47, details of atlases and surveys of the area, and figures 48 through 50, photographic views of the site, all which are located at the end of this section.

By the end of the first decade of the twentieth century, the vegetation encompassing the Wilson's Creek battlefield landscape had recovered completely from the effects of the conflict nearly fifty years earlier. In 1911, R.O. Gowan wrote to the *Springfield Republican*, reporting that "we visited the battleground a year ago and were much surprised to see nothing to indicate that anything of the kind had ever taken place—except a pile of broken stones—marking the place where General Lyon died." During the same year, another visitor to the scene noted that "nature had healed the scars upon the trees."¹²²

After nearly half a century, new vegetation had not only 'healed' the landscape, it had also changed it dramatically. What was once described as a relatively 'open' landscape in 1861, was characterized fifty years later as 'dense.' In a 1907 book, veteran Eugene F. Ware noted that in 1861 one could see clearly beneath the trees "because the fires had kept the undergrowth eaten out, and the soil was flinty and poor." However, "since that time, a large portion of the country has been covered with a very dense thicket of small oaks." This dense growth was also noted in 1909 when a newspaper reporter stated that Bloody Hill was "scored with ravines, the rock com[ing] to the surface in many places, and the height ...thickly covered with an overgrowth of scrub-oak. There are other eminences and ravines generally covered with scrub-oak and undergrowth." A year later, in 1910, Dr. Melcher recalled that in 1861, "Bloody Hill and the plateau east of the creek were open except for some scattered scrub oaks and some bushes, but the view was far more open than now."¹²³

John McConnell lived in the Ray House from 1904 until his death in 1934. His daughter, Bessie McConnell McElhaney, moved into the Ray House after 1934 and resided there until 1966 when she moved into a new home near the battlefield. Interviews with Bessie McElhaney and her son, Glenn McElhaney, have documented the changes made to the Ray House after 1904. Sometime between 1904 and 1913, John McConnell built a cistern. He also painted the house gray, enclosed a rear porch to make a new room, and removed exterior steps to a side porch and installed a railing. In addition, the western foundation wall was rebuilt ca. 1915, the house was re-roofed ca. 1927, and a total of four fireplaces were removed from the house. A 1926 survey of the creek area located the Ray House, barn, (cattle) sheds and a windmill north of the house between the railroad line and the Wire Road.¹²⁴

Bessie and Glenn McElhaney remembered several outbuildings that were present during the McConnell period of occupation, possibly dating to the last quarter of the nineteenth century. These included a forty by sixty foot barn 50 yards southeast of the house, a cattle shed 'across the Wire Road,' a smokehouse inside the southwestern corner of the yard, a springhouse located about 150 yards west of the house, a vegetable garden west of the fence enclosing the house yard, a chicken house ten yards south of the well, and a privy ten yards south of the south gate on a line with the chicken house.¹²⁵

¹²² Springfield *Republican*, 8/1/1911; "Wilson's Creek, Missouri: Field of Blenheim," 8/6/1911, "Post Battlefield Visits," Ms. in the Wilson's Creek NB Library.

¹²³ Bearss, "Historical Base and Ground Cover," 46, 50-51, 91.

¹²⁴ Bearss, "Ray House," 88-90; Russell and Axon, "Topographical Map of Wilson Creek Battlefield," 1926.

¹²⁵ Bearss, "Ray House," 94-97. The barn was struck by lightning in 1952 and burned to the ground.

In 1910, Bessie McElhaney and her husband William received a gift of 40 acres in the southeastern quarter of the northwestern quadrant of Section 25 from John McConnell. Sometime between 1910 and 1926, the McElhaneys occupied their 40 acres and built a Queen Anne-influenced farmhouse with adjacent barns and outbuildings including a smokehouse, root cellar, and cistern.¹²⁶

By the turn of the century, the old E.B. Short residence had been unoccupied for some time. One area resident recalled that by 1910, only the stone chimney of the house was still standing.¹²⁷

The first map to document landowners and their dwellings in Christian County was published in 1912. This map reflects that few new structures were built within the southern third of the park between 1861 and 1912. William F. Steele occupied the Joseph D. Sharp Farm and House site and owned a total of 360 acres in Christian County. He rented a portion of his property to two unnamed residents. One built a house in the northwestern quarter of the northwestern quadrant of Section 35. The other built a house in the northwestern quarter of the northwestern quadrant of Section 36. Just to the west of the southeastern corner of the existing park boundary, a small community named 'Terrell' developed on the land of W.L. Stewart as a result of the railroad. It included at least half a dozen homes and a school.¹²⁸

Although a substantial amount of land was given to the Alexandria & Pacific Railroad in and around the battlefield in the 1850s, no railroad line had yet connected Wilson's Creek to Springfield. By the early post-bellum period, the closest railroad line consisted of tracks of the Alexandria & Pacific due west in Republic, Missouri. In 1905, however, the Missouri Pacific Railroad (Springfield Southwestern Railway) agreed to connect Springfield to Crane in Stone County, Missouri. By the end of the year, they had surveyed the route for the tracks, acquired the right-of-way, and were in the process of compensating property owners for their losses. By April of 1907, the Missouri Pacific Railroad had completed its line from Springfield to Crane.¹²⁹

Within two years, speculators had begun to purchase land adjacent to the proposed path of the railroad. In January of 1907, Clarence Howell purchased land from John A. McConnell, James B. and Lucy Stewart, and M.C. and Priscilla McCroskey along the western side of the railroad's line. In August of the same year, he filed a town plat in Springfield. The plat showed the proposed location of town streets and lots.¹³⁰

Barnett has speculated that Howell's purpose in establishing the Town of Wilson Creek was tied to the development of a lime kiln. In July of 1907, Howell sold a 29-acre tract of land in the Town of Wilson Creek to the Rogers White Lime Company. Over the next year, the company built a railroad spur, a brick kiln stack, a limestone powder house, and eight or nine frame company houses for its workers. These structures were 'two room' buildings called 'two by four houses.' Limestone was blasted out of the adjacent bluff to the northwest, the tailings piled near the kilns and heated to make lime. The kilns were fueled by wood that was harvested locally and shipped in by rail.¹³¹

¹²⁶ Russell and Axon, "Topographical Map of Wilson Creek Battlefield," 1926; Determination of Eligibility, McElhaney Farm, National Park Service, Wilson's Creek National Historic Site, 1994.

¹²⁷ Bray, 1966 "Inventory and Evaluation," 139.

¹²⁸ "Plat of Townships 27 and 28 North, Range 23 West," *Plat Book of Christian County, Missouri* (Chicago: Western Publishing Co., comp., 1912).

¹²⁹ "The Springfield Southwestern Railway Co. vs. M. C. McCroskey, et al." Greene County Circuit Court, Docket 124, Case No. 40139; Barnett, "The Town of Wilson Creek," 1-2.

¹³⁰ Barnett, "The Town of Wilson Creek," 1-2.

¹³¹ Barnett, "The Town of Wilson Creek," 3-4.

Howell was appointed manager of the lime kiln and was the first to settle in the new town, eventually occupying a structure built by the McCroskeys and later known as the Gardner House. He later constructed a large nine-room house with a barn, chicken house, granary, and shop in the southwestern part of town.¹³²

Most of the houses in the Town of Wilson Creek had cisterns, but the town in general was supplied with water from a spring north of town and adjacent to Wilson's Creek. It was later deepened and enclosed in bricks and was reached by descending a steep bluff. Soon after Howell built his new residence, he also dug a well near the southern boundary of the town across from his home.¹³³

Access to the town was provided in two places. The main entrance from the north, a small dirt road, left the Wire Road and ran due south, crossing an intermittent stream and climbing a steep grade before entering the town. A concrete culvert and small bridge were later built over the stream. A second entrance from the west crossed Wilson's Creek, climbed a short hill, and entered the town on its southernmost thoroughfare, Siegel [sic] Street. This road forded Wilson's Creek at a relatively deep spot and was not used regularly by automobiles. Just south of the ford, a suspension or 'swinging' foot bridge was constructed.¹³⁴

In October 1908, a U.S. Post Office was established in the Town of Wilson Creek, and Christopher C. Branson was appointed first postmaster. The town population to be served at the Wilson Creek post office, including the surrounding vicinity, was estimated to be seventy-five. The post office was discontinued in May 1926.135

The Town of Wilson Creek was slow to grow. Most of the individual lots in town were never sold and remained pasture and agricultural land. With the exception of Howell and the lime kiln workers, only a few families purchased lots within the Town of Wilson Creek, many of whom were relations of Howell. Clarence Howell's son, George Howell, eventually moved to the Town of Wilson Creek with his family. He built and operated a general store located in the southeastern part of town, but eventually left after a few years and sold it to Charles and Lottie Stamps in November of 1912. In 1919, another of Howell's sons, Orville, came to Wilson Creek. Also, Bill Gray opened a blacksmith shop in town for "four or five years." By 1911, the town was described as "a small depot" located "on the east bank of Wilson's Creek."¹³⁶

Soon after the establishment of the lime kiln, a depot station was placed at the town. A report in 1970 described it as "a substantial building with a waiting room, baggage room and a clerk's office. The depot burned in 1935." In interviews conducted during 1980, however, former area residents recalled only a small, converted box car that served as the station.¹³⁷

After only six years of operation, in 1913 the Rogers White Lime Company closed and the lime kiln and its employees left the Town of Wilson Creek.

¹³² Barnett, "The Town of Wilson Creek," 4-5.
¹³³ Barnett, "The Town of Wilson Creek," 6.
¹³⁴ Barnett, "The Town of Wilson Creek," 7-8.

¹³⁵ Application for Location of Proposed Post Office in Wilson's Creek, Missouri. Post Office Department, Office of the First Assistant Postmaster General, 8/22/1908. Ms. in "The Town of Wilson Creek," file, vertical subject files, Wilson's Creek NB Library.

¹³⁶ Barnett, "The Town of Wilson Creek," 5-6, 9; Springfield Republican, 8/1/1911.

¹³⁷ Barnett, "The Town of Wilson Creek," 6; Rafferty, "The Geography of the Wilson's Creek ESA," 1970." This is the only source that describes the Wilson Creek depot as a substantial structure. All other sources indicate that the converted box car was the only depot station.

In 1914, A.J. Brooks purchased a lot in town and built a general store, but prior to opening the store he sold it to L. Bert Robinson in December of the same year. The post office moved to Robinson's store and it soon became a local landmark serving area residents. The store burned in 1927 and was reopened for only a year before closing permanently.138

The second and final industry to come to the Town of Wilson Creek was a tomato cannery. In December 1917, William L. O'Bryant purchased the land of the former Rogers White Lime Company and constructed a frame, three-sectioned cannery. The cannery was located on the northwest side of town, adjacent to Wilson's Creek and close to the spring. Water from the spring was pumped up to a tank by a two-cycle steam engine and used for scalding and cooking the tomatoes. Tomato skins and other waste were dumped directly into Wilson's Creek or fed to hogs. O'Bryant was married to Edith Howell, the daughter of Clarence Howell. They also settled in Wilson Creek, residing in a house in the center of town. Sometime after 1917, O'Bryant also placed iron gates across the railroad tracks to keep his cattle out of harm's way. After only five years of operation, in 1923, William O'Bryant closed his tomato cannery and left the Town of Wilson Creek.139

In a 1920 letter, N.C. Wyeth described the Town of Wilson Creek, which he had visited while conducting research for his mural commission for the Missouri the state capitol.¹⁴⁰ The letter is quoted here in its entirety:

Letter from N.C. Wyeth to Carol

Written from the Colonial Hotel, St. Louis and Jefferson Streets, Springfield, Missouri, May 4, 1920.

The handwriting has been translated on the photocopy of the letter archived at the park.

My dearest Carol:

I'm not stopping here, except to filch their stationery and get word off to you before starting the next lap of my journey out here.

I have just returned from the tiny and remote little settlement called Wilsons Creek (some 15 miles from here). A real frontier settlement still with its weather-worn houses and one store and a box-car for a station.

I found the people most remarkably appealing—jovial, enthusiastic and so eager to help me in every conceivable manner. What types! and music to hear them talk!—and so honest and in every single case so extremely anxious to discriminate between fact and legend regarding the bloody battle that was fought on their farms.

In most cases their fathers or grandfathers fought in this engagement which stimulated a real [illegible word] spirit toward all the land marks.

¹³⁸ Barnett, "The Town of Wilson Creek," 8.
¹³⁹ Barnett, "The Town of Wilson Creek," 9-12.

¹⁴⁰ Letter, N.C. Wyeth to Carol, May 4, 1920, in Barnett, "The Town of Wilson Creek," Ms. in the vertical subject files, Wilson's Creek NB Library.

For instance, Mr. Glidewell (a rare old Missourian) has fenced off and planted a [illegible word] hedge about a [illegible word] on a back lot where 30 or more union soldiers were buried. On Bloody Hill is the spot where Gen. Lyon was killed and he has preserved and [stimulated?] a cairn which has in it hundreds of stones with the names of old soldiers who have revisited their old field of contest (the victorious chiseling their names themselves).

A number of such interesting things are cherished by this little community—and not a dozen people a year (except when the veterans used to hold reunions there) visit this lonely place.

A group of these fine people followed me all over the hills and we held long conversations on this knoll and that, women with big sunbonnets, men with great straw hats, and children bare-headed and bare-legged. What a <u>fool</u> not to have had a camera. How I wish you could have seen me in an old pair of borrowed overalls and in shirt sleeves (happy as ever) with that fine wholesome group.

Such people give one faith in America, but how long will they last!

To close a perfect day, I rode one of a bunch of 9 or 10 mules which a Mr. Young (Dan'el Young—thank God they called it Dan'el) was sending by his son to Springfield. The roads were muddy and the way slow, but feel much more soaked with Missouri landscape.

After the last industry left town in 1923, the population of Wilson Creek slowly dwindled. While some of the houses in town remained occupied, many residents moved to the larger towns of Republic and Springfield. When the State of Missouri acquired the land comprising the Town of Wilson Creek in the mid-1960s, three property holders owned the entire area.¹⁴¹

In 1911, the historic features in the vicinity of Bloody Hill were described by visitors: "The circular summit of Bloody Hill is fringed now with a growth of tall trees with a bare spot of two or three acres in the center where the soil is too thin for trees. Only grasses and wild flowers grow there." The sinkhole, where numerous Federal soldiers were buried, was also described. "Thick bushes grew around it half hiding a hole, a 'sink hole,' he called it. It was ten feet deep and as wide as that across the top. …From out of the charnel pit of red earth a peach tree grew, its fruit reddening in the July sun. A bramble of blackberry bushes grew rank and thick around its ragged edges."¹⁴²

During the early twentieth century, efforts to memorialize Wilson's Creek battlefield became more organized on a local level. In 1905, the Wilson's Creek National Monument Park Association was chartered to more effectively push for the establishment of a national park at the battlefield. In 1926, efforts by local congressmen and senators had convinced the War Department to examine and survey the Wilson's Creek battlefield. The engineering firm of Russell and Axon made the first topographical survey of the battlefield and soon thereafter Army representatives came to Wilson's Creek to check it on site. Dr. L.E. Meador, a local historian intimately involved with efforts to memorialize Wilson's Creek, wrote an accompanying report of the battle and submitted it to the War Department. As a result, in 1928 the War Department raised the rank of Wilson's Creek

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¹⁴¹ Barnett, "The Town of Wilson Creek," 12.

¹⁴² "Wilson's Creek, Missouri: Field of Blenheim," 8/6/1911, in "Post Battlefield Visits," Ms. in the Wilson's Creek NB Library.

battlefield from Class D, the lowest, to Class C. Ultimately, however, the battlefield was deemed 'unsuitable' for a park.¹⁴³

The 1926 Russell and Axon survey is one of the more accurate maps to document conditions as they existed on the Wilson's Creek battlefield during the first part of the twentieth century, recording not only historic features relating to the battle, but also residences, outbuildings, roads, springs, fences, and even windmills. However, the map focuses only on the central battleground area and does not document park property in the northern portion in Greene County or its southern part within Christian County. The map shows a dispersed farming community connected by a network of farm roads. The two main watercourses identified on the map are Wilson's Creek running due north/south, and Skegg's Branch that drains into Wilson's Creek from the west near the Greene-Christian County line. Several transportation features are also prominent. The line of the Missouri Pacific enters the area from the northeast and parallels Wilson's Creek before crossing it at its intersection with Terrell Branch. In addition, major roads through the area appear to conform to Section and quarter section lines. While the Wire Road is located on the map, it is labeled as 'Old Location, Wire Road,' implying that only small portions of the original route were still used. Supporting this is a 1927 landowner map of Brookline Township that does not show the Wire Road as part of the Greene County regional road system. Central to the map is the small town of Wilson Creek. The town is also located on the 1927 Brookline Township landowners map. Only two new residences are documented. A new house and barn were constructed on the property previously owned by George T. Hale in 1912 in the northeastern quarter of the southwestern quadrant of Section 36. Another unidentified residence is indicated in the northwestern quarter of the northeastern quadrant of Section 26, located on land previously owned by the Link Milling Co. in 1904 and later by W.C. Manley in 1927.¹⁴⁴ The map also indicates the presence of a church adjacent to the park's current western boundary, and the "Capernaum School" to the north of the Ray House.

Fences dominate the landscape of the 1926 Russell and Axon survey. Fences were used to surround agricultural and pasture land and to keep grazing animals penned. Fences also lined property boundaries, major roads, and parts of Wilson's Creek. Public facilities, such as churches and school grounds, were also fenced.¹⁴⁵

The first Christian County, Missouri, plat book was issued in 1912. Fewer roads are shown running through the southern one-third of the battlefield than the northern two-thirds. This is due primarily to the presence of the Town of Wilson Creek and the Missouri-Pacific Railroad. Two major roads skirted the southern and eastern borders of the battlefield. An east-west road ran from the southwestern corner of the battlefield along the division line between Sections 35 and 36, and Sections 1 and 2, south of and adjacent to the tracks of the Missouri-Pacific. A north-south road ran from the southeastern corner of the battlefield north to the Greene-Christian County line.¹⁴⁶

In 1914, Greene County erected a bridge across Wilson Creek where it intersected with the Wire Road. The extant bridge, a steel, single-span Howe truss spans a fifty-foot distance and has diagonal cable struts and 'I' beam chords eight feet apart. Fieldwork documenting existing conditions also identified a poured concrete ford where the Wire Road crosses Skegg's Branch in the southeastern quarter of the southeastern quadrant of Section 26. This feature most likely dates to the first quarter of the twentieth century but has been repaired.¹⁴⁷

¹⁴³ Greene County Circuit Court, Charter Books, 11/11/1905. Greene County Courthouse, Springfield, Missouri.

¹⁴⁴ Russell and Axon, "Topographical Map of Wilson Creek Battlefield," 1926.

¹⁴⁵ Russell and Axon, "Topographical Map of Wilson Creek Battlefield," 1926.

¹⁴⁶ "Plat of Townships 27 and 28 N, Range 23 W," Plat Book of Christian County, Missouri, 1912.

¹⁴⁷ Determination of Eligibility, Steel Truss Bridge, 1995.

A 1927 landowner map for Brookline Township documents that few new changes in the road system were carried out within the Wilson's Creek area during this period. On the eastern edge of the battlefield a north-south road, Farm Road 111, entered the park vicinity following the north-south half section line of Section 24 and running south to its intersection with the Wire Road.¹⁴⁸

The 1920 population schedule for Greene County, Missouri, noted the names of the roads upon which residents lived. Several of the major roads in the vicinity of Wilson's Creek NB were named including, 'County Line Rd.,' 'Old Wire Rd.,' 'Battlefield Rd.,' and 'Brookline and Battlefield Rd.'¹⁴⁹

By the turn of the century, the occasional gatherings of visitors and veterans at the Wilson's Creek battlefield began to take on an increased local significance. During the 1883 and 1897 veterans' reunions, a new generation of southwestern Missouri residents attended the events, many of whom had not personally experienced the Civil War. Newspaper articles from the period note the presence of 'younger visitors' and large crowds. These new celebrants, with no direct memory of the battle, may have experienced the regular reunions as patriotic reminiscences, but also remembered them as a significant summer social event. Residents of the Town of Wilson Creek recalled that during the first quarter of the twentieth century, the reunion had become a popular social event that had begun to dictate the timing of long-held subsistence practices. "We always tried to get our work all rounded up, the wheat harvested, kraut made. Everything needed to be done. My dad would see that his fence rows were cut out and everything as smooth, neat and clean as could be. He didn't want people to see any brush growing up in his fence rows. He thought it was a disgrace to not keep your fence rows cut out." In 1981, Gertie Wilhite remembered the reunion she had attended as a child as a large social get-together.

We camped just south of where that big rock pile was. Wagons would come from all over the country and they would camp there for the three days. Of course we were close enough that we could go back and forth. But there was any amount of wagons from all over the country that would camp there for the three days of the reunion. They always had what they called a band stand and then they always had speakers. Always they read the Declaration of Independence. ... They had a merry go round. There was a big old pole in the center with a tent stretched over it. They had seats that two could sit in and they were held to these poles that came out from the big general pole. They hung on these poles by ropes. There was a mule, always a mule that pulled the merry go round and made it go round and round. Of course money was very scarce at that time and we children always tried to save some of our money that we got during strawberry picking time to ride on the merry go round and buy some hard popcorn. The fathers and mothers would buy lemons and make tubs of lemonade. They sold that, two big glasses for a nickel. That was about all there was to spend your money on. We hoarded our nickels for all of that.¹⁵⁰

During the late nineteenth century and into the early twentieth century, residents of the Wilson's Creek vicinity found the remains of several Confederate and Union dead. Several articles reported scattered burials discovered by accident or found washing out of the banks of Wilson's Creek. In 1897, the remains of a soldier were found at Griffin in Christian County. The bones were boxed up and sent to the Springfield National Cemetery. In 1914, as workers were grading a road near the

¹⁴⁸ "Greene County Landowners Map," Brookline Township, 1927.

¹⁴⁹ Fourteenth Census of the United States, 1920. Population Schedule, Greene County, Missouri. T625, Roll #916.

¹⁵⁰ Interview with Gertie Wilhite, April 16, 1981. Ms. in vertical subject files, Wilson's Creek NB Library.

railroad stop at Wilson Creek, a burial was discovered. A complete skeleton including a blanket, bullet, buttons and a boot fragment were recovered.¹⁵¹

One Wilson Creek resident, John McConnell, is reported to have raised 250 acres of wheat in 1914, producing 23 bushels per acre. A year later he again planted 250 acres of wheat and an additional $60 \text{ acres of corn.}^{152}$

 ¹⁵¹ "Bones of a Soldier," Springfield *Republican*, 4/16/1897; "Found a Soldier's Skeleton in Field of Wilson Creek," Springfield *Republican*, 10/30/1914.
 ¹⁵² Bearss, "Ray House," 84.



The Railroad Era and the Town of Wilson Creek ca. 1905–1928

Figure 44. Christian County generally has been less well documented over the years. This atlas from 1912 is one of the earliest sources to depict the Christian County landscape other than the latenineteenth-century interpretations of the battle.



The Railroad Era and the Town of Wilson Creek ca. 1905–1928

Figure 45. The 1926 Russell & Axon topographical map of the general vicinity of Wilson's Creek battlefield.



Figure 46. A detail of a 1927 atlas of Greene County.





Figure 47. Survey of the Town of Wilson Creek, 1907.



Figure 48. Robinson's General Store, Town of Wilson Creek, ca. 1915-1927.



Figure 49. Town of Wilson Creek, ca. 1907.



Figure 50. Ray House barn, steam engine, and wagon, no date.

Source: Wilson's Creek NB library, cat. #67

Formal Commemoration of the Wilson's Creek Battlefield,

1928-1960

See figure 51, Historic Period Plan, 1928–1960; figure 52, USGS base mapping; figure 53, detail of a 1953 aerial photograph; figures 54 through 57, photographic views of the Short property; figures 58 through 60, views of the Town of Wilson Creek; and figure 61, the Lyon Marker, which are located at the end of this section.

After repeated calls for a formal memorial at Wilson's Creek and with widespread regional support, the University Club of Springfield installed a granite marker on the spot where Gen. Nathaniel Lyon had died. The land upon which the Lyon Marker was placed was 'donated' by John A. McConnell, the landowner in 1928. It is not clear, however, exactly when the memorial was actually placed on site. The stone cairn was still present in 1928 when an article in a Springfield paper noted "a pile of stones is the only marker of the struggle, the tribute of unnamed builders to the memory of General Nathaniel Lyon." An editorial contributor to the *Cortland Standard* stated in March 1929 "I notice that an effort is being made to revive interest in the erection of a War Memorial on the battlefield of Wilson Creek in Greene County, Missouri." It is also not clear whether the formal marker replaced or supplemented the stone pile monument. In a 1981 interview, one local resident recalled that during the second decade of the twentieth century, the stone pile was "higher than a six foot man's head would be." The fact that "some memorial more fitting" was needed suggests that the stone pile may have been removed from the site when the new monument was erected. It is not known what was done with the stones removed from the pile.¹⁵³

Two other cultural features relating to the battlefield are known to have existed in the Bloody Hill vicinity during this period: a second stone pile, and a rock outcropping with carved inscriptions. A 1951 newspaper article noted the presence of two piles of stones on Bloody Hill, one marking the location where General Lyon was 'wounded,' and the other marking the location where he was 'killed.' The location of the pile of stones noting the location where General Lyon was 'wounded' is currently not known. Observable today is a large stone "on Bloody Hill" that possesses an inscription made by a dying Confederate soldier.¹⁵⁴

In 1938, the last reunion to involve veterans was held at the Wilson's Creek battlefield.¹⁵⁵ After rejection by the War Department, efforts to obtain state support for the establishment of a memorial park at Wilson's Creek continued. In April of 1934, the Missouri State Historical Society reported that "the site of the battle of Wilson's Creek, near Springfield, is to be purchased by the State, and will be cared for by the State Game and Fish Department. Forty acres were donated by the owner and 405 acres were purchased." In 1939, the Missouri General Assembly appropriated \$60,000 to

¹⁵³ Memorandum to Superintendent G.W. Carter, from Management Assistant (M.J. Mattes), 3/8/1965, 2, in "Administrative History of WICR #1," Ms. in the vertical subject files, Wilson's Creek NB Library; "Only Field Stone Forms Memorial on Wilson Creek," Springfield *Daily News*, 1928; Barnett, "The Town of Wilson Creek," Ms. in the vertical subject files, Wilson's Creek NB Library; "F.E. Herrick Writes of Taking Photographs on Historic Field: To the Editor of the Cortland Standard, 3/16/1929," in "Post Battlefield Visits," Ms. in the vertical subject files, Wilson's Creek NB Library; Interview with Gertie Wilhite, 4/16/1981, "The Town of Wilson Creek," Ms. in the vertical subject files, Wilson's Creek NB Library.

¹⁵⁴ Lucille M. Upton, "General Sturgis Visits Wilson's Creek Site," 3/26/1951, in "Wilson's Creek, 1900-1960," Ms. in the vertical subject files, Wilson's Creek NB Library. A caption under one of the photos in this article states that a local historian, Dr. L.E. Meador, believed one of the stone piles to be the spot where Col. Richard H. Weightman, a Confederate, was killed.

¹⁵⁵ Park Historian Notes, DRAFT "History of Wilson's Creek," 2.

buy the land to establish the park, but Governor Lloyd C. Stark vetoed the bill due to budgetary problems.¹⁵⁶

Elsewhere within the battlefield landscape life remained predominantly rural and agricultural. Sometime around 1930, John McConnell had a well dug on the Ray property. He also built an addition to the existing springhouse, expanding it to accommodate dairy milk storage. After John McConnell's death in 1934, his grandson Glenn McElhaney made several improvements to the historic Ray House. In 1935, the front fence was removed and a stone wall constructed from materials salvaged from the Town of Wilson Creek's lime kiln. A fence enclosing the yard was put up during the same year. Three gates allowed ingress and egress to the yard area.¹⁵

Many of the trees surrounding the Ray House were planted during this period. Bessie McElhaney recalled that a sugar maple and an elm tree growing in the front of the house along the Wire Road were there prior to 1934. Several locusts and at least one poplar tree were planted by the McElhaneys shortly after 1934. Coring of specific trees around the Ray House in 1983 indicated that the sugar maple and a white poplar were both approximately 108 years old, thus dating to the Matthew Alexander tenure.¹⁵⁸

In August and September of 1930, landholders in Sections 25, 26 and 35 granted easements to the Gulf Pipe Line Company of Pennsylvania, with the right to "lay, maintain and operate a pipeline for the transportation of crude oil and its products." The easements were not restricted to a typical right-of-way but included entire parcels of land. The easements also allowed the company to select the route across the parcels, to lay additional pipelines, and to erect, maintain and operate telegraph and telephone lines. The pipeline easement cuts through the southern half of Wilson's Creek NB and extends from the southeastern quarter of the southwestern quadrant of Section 25 to the northwestern quarter of the northeastern quadrant of Section 35. The northern pipeline was completed in 1930 and the southern pipeline was completed in 1936. At present, the right-of-way contains two underground pipelines 15 feet apart that are operated by current owner LDDS WorldCom. One of the pipelines now carries fiber optic cable, the other is not currently in use.¹⁵⁹

In a mid-1960s interview, Glen McElhaney remembered the house, a frame structure with clapboard roof and limestone chimney that used to stand on the location of 'the old Winn site,' or the Gwinn homestead. The house was last occupied in 1910 by J.B. Stewart. During the 1930s the house, which was likely in poor condition due to its abandonment, was dismantled and used for kindling by farm laborers.¹⁶⁰

Between late 1934 and early 1935, the remaining landowners petitioned the Greene County Court to disincorporate the Town of Wilson Creek. In January of 1935, "that part of the above said town of Wilson Creek lying west of the railroad (that part of the above said lying East of the Railroad has

¹⁵⁶ "Monuments and Memorials," *Missouri Historical Review* 28 (April 1934): 231; Park Historian Notes, DRAFT "History of Wilson's Creek," 3; "The Fight That Lasted 100 Years," Springfield *Leader–Press*, 8/10/1961.

¹⁵⁷ Bearss, "Ray House," 88-97.

¹⁵⁸ Bearss, "Ray House," 95; Carl E. Hauser to Ron Miller, June 28, 1983, in "Ray Family," Ms. in the vertical subject files, Wilson's Creek NB Library. The elm tree died of Dutch Elm disease sometime during the second quarter of the twentieth century and had to be taken down.

Government Review Comments, 50% Draft CLR, 5/2/2000, 3-4; Right-Of-Way Grant, Jennings Stamps to Gulf Pipe Line Company, July 28, 1930, Greene County Archives and Record Center, Springfield, Missouri. ¹⁶⁰ Brav. "Wilson's Creek Revisited," 200-201.

previously been dis-incorporated)" the majority of which was used for agricultural purposes and never improved as town lots, was disincorporated.¹⁶¹

Sometime after its disincorporation, Ora Hart, one of the few remaining landowners in the Town of Wilson Creek brought in a bulldozer to grade the land on either side of the railroad for agricultural purposes. "He had a bulldozer come in and bulldoze this in [road leading into Town of Wilson Creek from the north]. And he farmed …he owned on both sides of it and of course it was a county road and he got the county road closed and he had a bulldozer come in and tear the banks down and level it up."¹⁶²

The Manleys continued to occupy the historic C.B. Manley residence throughout the first half of the twentieth century. In 1938, they constructed an earthen and concrete dam on the branch that bore their name in the southeastern quarter of the southwestern quadrant of Section 25. A local resident stated that the dam was originally part of a mill. Archeologists conducting survey work in the area also located a possible limestone foundation of an associated outbuilding.¹⁶³

In 1946, Leonard McKeel purchased the W.C. Short property from Roy Short. At the time he purchased it, McKeel described the property as a one and a half story frame residence with an adjacent cistern and wood frame barn with a gable roof and lean-to addition on its north side. McKeel later converted the cistern into a septic tank.¹⁶⁴

Interest in commemorating the Battle of Wilson's Creek continued through the 1940s. In September of 1950, the non-profit Wilson's Creek Battlefield Foundation was chartered by the Missouri Secretary of State. The purpose of the foundation was to raise money to purchase a thirty-seven acre parcel of land on Bloody Hill that was to be sold as part of an estate division. Dr. L.E. Meador, a local historian, was elected the first president of the Foundation and he spearheaded the effort that raised over \$2,165 to purchase the desired parcel. On October 8, 1951, Robert and Myrtle McClure sold the Bloody Hill parcel to the Foundation. This parcel was located within the southeastern quarter of the northeastern quadrant of Section 26. Soon after the purchase, a steering committee was formed in Washington, D.C., to 'plan for and guide' the passage of a bill to establish a national park at Wilson's Creek.¹⁶⁵

One of the goals of the Wilson's Creek Battlefield Foundation's acquisition of Bloody Hill was to provide access for visitors interested in the Civil War battle. In a 1951 newspaper article, Dr. L.E. Meador, president of the Wilson's Creek Battlefield Foundation stated that he had hopes of extending "the road across the park to the road past the house [possibly the Ray House], but today it was impossible to drive directly there." According to a 1927 Greene County landowners' map, a road had previously extended across the battlefield, bisecting it in an east-west direction, but this road appears by 1951 to have been discontinued. The same article noted several improvements that were effected by the foundation: "the road into the park has been graveled by the Greene County Court. Volunteers from Springfield, Republic, and the neighborhood around the park have helped to beautify the grounds. The GI training class at Republic has done much of the landscaping." In addition, the route of Highway ZZ on the west side of the park appears to have been altered. Also

¹⁶¹ Disincorporated Town Files, File #64-423, 9/18/1834, Greene County Archives and Record Center, Springfield, Missouri.

¹⁶² Interview with Mr. Jack Glidewell, 4/15/1981, in "The Town of Wilson Creek," Ms. in the vertical subject files, Wilson's Creek NB Library.

¹⁶³ Ray and Monk, "Archeological Survey of Tree Removal Zones," 9-10.

¹⁶⁴ David Austin and William Martin, "Phase I Cultural Resource Survey, Route ZZ, Greene County, Job No. 8-S-ZZ-379," June 1988, 21-28.

¹⁶⁵ Park Historian Notes, DRAFT "History of Wilson's Creek," 3-4.

around this time. A short section of Highway ZZ was realigned with a section running diagonally across the northeastern quarter of the northwestern quadrant of Section 26.¹⁶⁶

In the spring of 1952, the KAMO Electric Cooperative, Inc. purchased an easement from several property owners living in the vicinity to build an electrical power transmission line. KAMO was granted the right to cut and clear all of the brush, timber, structures, improvements and 'fire hazards' within the right-of-way except "growing crops and fences." The easement also granted KAMO the right to enter the property to maintain, repair, rebuild and patrol. Construction of the power line began soon thereafter. The power line runs through the northwestern corner of Wilson's Creek NB and extends from the northeastern quarter of the southeastern quadrant of Section 23 to the northwestern quarter of the northeastern quadrant of Section 26 in Greene County.¹⁶⁷

During this period, two important community-oriented buildings that abut the current park boundary appear on maps of the area. To the west of the park at the intersection of Highway ZZ and the road leading to Bloody Hill was the Capernium Church. To the east of the park boundary, due north of the Ray House was the Capernium School. Both buildings appear to have been in existence in 1960 when the park was established, but neither survives today. The school appears on an 1897 road petition, and the church appears on maps and aerial photographs dating from the 1930s. The dates of origin of these two features have not been identified through this study.

 ¹⁶⁶ Upton, "General Sturgis," 3/26/1951; Aerial photograph, Wilson's Creek, September 24, 1936; Aerial photograph, Wilson's Creek, BLJ-2M-61 and 62, and 4M-64 and 65, September 15, 1953 and September 20, 1953.
 ¹⁶⁷ Abstract #25: Abstract of Title to the Northeast quarter of the Southwest quarter of Section 23, in Township 28 of Range 23. April 30, 1952. Greene County Archives and Record Center, Springfield, Missouri.





Figure 52. This detail of the 1937 U.S.G.S. Republic, Missouri, quadrangle map includes some of the buildings and structures associated with the Town of Wilson Creek.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 53. This 1953 aerial photograph of the Wilson's Creek battlefield has been annotated to illustrate section lines and numbers. The dashed line may represent the park boundary proposed ca. 1960 by NPS military historian Ed Bearss. The final boundary was modified slightly. This photograph indicates how much more open the site was in 1953.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 54. Short farmstead, ca. 1946.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 55. Short farmstead, ca. 1946.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 56. Short farmstead, ca. 1946.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 57. Short farmstead, ca. 1946.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 58. Unidentified structure, Town of Wilson Creek, ca. 1960s.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 59. Old barn on former Hart property, Town of Wilson Creek, ca. 1960.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 60. Unidentified structure, Town of Wilson Creek, ca. 1960s.

Formal Commemoration of the Wilson's Creek Battlefield 1928–1960



Figure 61. Lyon Marker, no date.

Development of Wilson's Creek as a National Park, 1960–1976

See figure 62, Historic Period Plan, 1960–1976; figures 63 and 64, diagrams illustrating wildfire and vegetation restoration activities; figures 65-67, photographic views of archeological investigations at the park; and figure 68, park brochure, which are located at the end of this section.

Throughout the mid-1950s, efforts by several elected officials to pass bills in Congress for the establishment of a national park at Wilson's Creek failed. In 1957, however, the director of the NPS, Conrad L. Wirth, visited the battlefield. Soon after his visit, the bills for Wilson's Creek were reintroduced and, by April of 1960, passed both houses of Congress. On April 22, 1960, President Dwight D. Eisenhower signed into law the bill establishing a national park at Wilson's Creek. The Act stipulated that the Secretary of the Interior was to acquire the lands comprising the Wilson's Creek battlefield site and to set them aside "as a public park for the benefit and enjoyment of the people of the United States."168

In June of 1960, historian Edwin C. Bearss visited the park to conduct a study to establish the park boundaries and determine the number of acres required to be purchased. In August of the same year, an Act of Congress designated a formal name for the site: Wilson's Creek Battlefield National Park.169

In July of 1961, the Missouri General Assembly established the Wilson's Creek Battlefield National Park Commission for the purpose of purchasing lands as designated by the NPS. A month later, more than \$350,000 was secured for purchase of park lands.¹⁷⁰

On August 10, 1961, the Wilson's Creek Battlefield National Park was formally dedicated on the centennial anniversary of the battle. A deed for an initial 37 acres of the park, acquired by the Wilson's Creek Battlefield Foundation in 1950, was presented to the federal government.¹⁷¹

Over the next three years, the NPS categorized the private properties located within the proposed battlefield boundaries pertaining to their significance and acquisition priority. Properties were labeled as Category I - IV, with Category I lands being most significant to the park. Thirteen tracts totaling more than 400 acres were determined to be Category I lands, 11 tracts totaling more than 700 acres were determined to be Category II lands, and Category III and IV lands totaled 318 acres. Much of the land needed for the park was purchased outright, although a number of parcels had to be condemned. By early 1964, the Wilson's Creek Battlefield National Park Commission owned title to just over 1,000 acres of the land recommended by the Bearss study.¹⁷²

While the lands for the park were being acquired by the state, no physical changes to the appearance of the battlefield were implemented. In 1963, the Wright-Weeks Company was hired to conduct a topographical survey of the battlefield area to be used in preliminary planning for park

¹⁶⁸ Park Historian Notes, DRAFT "History of Wilson's Creek," 4-5; 86th Congress, H. R. 725, Public Law 86-434, "An Act to Provide for the Establishment of the Wilson's Creek Battlefield National Park in the State of Missouri," 74 Stat. 76.

¹⁶⁹ Springfield Leader-Press, June 29, 1960, 17.

¹⁷⁰ Park Historian Notes, DRAFT "History of Wilson's Creek," 6.

¹⁷¹ "Solemn Dedication of Wilson's Creek National Park: Fivescore Years Ago...," Springfield Daily News, August 11, 1961; "The Fight that Lasted 100 Years," Springfield *Daily News*, August 11, 1961, 10. ¹⁷² Park Historian Notes, DRAFT "History of Wilson's Creek," 7.
development.¹⁷³ In May 1965, the federal government formally accepted the title to an additional 1,008 acres of land at Wilson's Creek. Upon receipt of title, the NPS embarked on a two-year process of large-scale improvements and development within the Wilson's Creek park vicinity. These improvements were exclusively focused on the Greene County section, the northern twothirds of the park, and may be broadly classified into three groups; the improvement and construction of the park road system, the construction of visitor and employee accommodations and facilities, and the demolition of 'non-historic' structures and features.¹⁷

One of the first priorities for the NPS was to improve the existing roads within and leading to the Wilson's Creek Battlefield National Park. During 1965, the NPS entered into a cooperative agreement with the Greene County Road and Bridge Department whereby the County would provide the labor and equipment necessary for parking lot and road development, and the NPS would provide the materials. They also entered into an agreement with the Missouri State Highway Department, which allowed the NPS to construct roads within the Highway ZZ right-of-way. By the fall of 1965, the Greene County Road and Bridge Department had completed the rough grading improvements to the county roads within the park including laying out and grading for the new Sigel, Price, Pulaski and Ray House parking areas. In addition, the road into Bloody Hill from Highway ZZ was improved and a wide semi-circular space for parking was added. "Visitors no more can drive to the hilltop where Lyon was killed. They will park at the new lot, then walk about 200 yards to the site." A walking trail was cleared between the parking lot and the area where Lyon died. By September of 1966, the informal tour road and parking areas using existing county roads had been entirely paved, new parking areas had been built, and interpretive signs had been installed at the Gibson House and Mill site, the Ray House, the Pulaski Battery, Price's Headquarters, the Joseph B. Sharp House site, Sigel's final position, the location of the Confederate flanking maneuver, and Bloody Hill.¹⁷⁵

The park tour route using existing Greene County roads began in the northwestern corner of the park at the headquarters facility and proceeded south along Highway ZZ to its intersection with the Greene-Christian County line. At the county line, the tour route proceeded east until it intersected the Wire Road, then followed the Wire Road northwest, crossing Wilson's Creek, until it intersected Farm Road 111 just north of the Ray House complex. The tour route then proceeded north on Farm Road 111 until its intersection with Farm Road 182. The final leg of the tour led west along Route 182 until its intersection with Highway ZZ.

By 1968, an interpretive shelter was constructed adjacent to and east of the new Bloody Hill parking area. A year later an underground electrical line was connected to the shelter. An interpretive display housed within the shelter contained maps and taped recordings interpreting the battle events that had occurred within the view area.¹⁷⁶

In addition to improving the park road system, the NPS also constructed facilities and accommodations for visitors and its employees. Two major areas were developed, an interim park headquarters in the northwestern corner of the park along Highway ZZ that included visitor

¹⁷³ Park Historian Notes, DRAFT "History of Wilson's Creek," 18. ¹⁷⁴ Park Historian Notes, DRAFT "History of Wilson's Creek," 8.

¹⁷⁵ Highlight Briefing Statement, 1965 Calendar Year, Wilson's Creek Battlefield National Park, 1; "Rains Hamper Work on Park," Springfield Leader-Press, n.d.; Highlight Briefing Statement, 1966 Calendar Year, Wilson's Creek Battlefield National Park, 1.

¹⁷⁶ Park Historian Notes, DRAFT "History of Wilson's Creek," 14, 17.

accommodations, maintenance facilities and a park residence, and a picnic and luncheon area just south of it.¹⁷⁷

The park headquarters was sited to provide easy access to the park from Highway ZZ via Highway M and Route 60, but also took advantage of existing structures. A maintenance area and access road were laid out on the west side of Highway ZZ, incorporating the historic Short/McKeel residence and barn. The barn was used as a maintenance building while a new metal maintenance building was being constructed. In September of 1966, a 550-foot-deep well was drilled in the maintenance area. In November, three trailers were moved to the headquarters on Highway ZZ. One was designated as a residence for the park superintendent, one contained comfort facilities, and one housed an office, library, and visitor space. In February of 1966, the new metal maintenance building was completed and water, sewage and electrical utilities were installed.¹⁷⁸

South of Farm Road 182 and just west of its intersection with the park boundary, a visitor luncheon and picnic area was laid out. In May of 1966, the picnic area was completed and contained ten picnic tables and two comfort stations.¹⁷⁹

In an attempt to restore Wilson's Creek Battlefield National Park to its 1861 appearance, the NPS initiated the removal of all 'non-historic' structures within the park boundaries "through a salvage plus payment contract."¹⁸⁰ Between 1965 and 1969, the park razed many of the "excess" structures that it had acquired due to the land transfers from the state of Missouri. A majority of these structures were typical early-twentieth-century farmsteads that the park defined as having "no present or potential value for park purposes." The park advertised the sale of the building materials as salvage, and the money made during the sale was to be deposited in the U.S. Land and Water Conservation Fund. Those structures razed in 1965-66 included the former McKeel, Wolf, Glidewell, Dulin, O'Connor, Davis, Gardner, Hart, McElhaney, Maples, L.J. Moore, Jones, and Stratton Houses and outbuildings. Again between 1968 and 1969, the park razed additional structures including the former Gene Hancock, C.R. Manley, Willie Fugitt, and Ray Hampton homes, and selected structures on the former Glenn McElhaney property.¹⁸¹

In 1966 and 1967, the NPS conducted archeological research on several of the historic features and properties known to have existed in August of 1861. Excavation teams from the University of Missouri led by Robert Bray investigated Bloody Hill, the sinkhole, the Gwinn House site, Gibson's Mill and House, the E.B. Short farm and spring site, and the Edwards Cabin site. As a result of their investigations, the sinkhole was cleared of brush and fill and restored to its 1861 condition.¹⁸²

 ¹⁷⁷ National Park Service, "Wilson's Creek National Battlefield, Statement for Management, Existing Management Zoning and Boundary Map," 5/26/1976.
 ¹⁷⁸ National Park Service, "Highlight Briefing Statement, 1965 Calendar Year, Wilson's Creek Battlefield National

¹⁷⁸ National Park Service, "Highlight Briefing Statement, 1965 Calendar Year, Wilson's Creek Battlefield National Park," 1; "Temporary Housing Set Up at National Battlefield," *Sunday News & Leader*, November, 28, 1965; National Park Service, "Highlight Briefing Statement, 1966 Calendar Year, Wilson's Creek Battlefield National Park," 1.

¹⁷⁹ "Battlefield Park Taking Shape Despite Weather," Springfield *Leader–Press*, February 23, 1966, 17.
¹⁸⁰ "Old Glory Waving as Battlefield Slowly Turns into National Park," Springfield *Leader–Press*, n.d.; 1966
"Highlight Briefing Statement," 1.

¹⁸¹ Memorandum from David L. Heib, Superintendent to Regional Director, Midwest Region. "Disposal of Excess Structures, Wilson's Creek Battlefield, NP," September 4, 1968. Contract File, Wilson's Creek Battlefield National Park, Republic, Missouri.

¹⁸² Bray, "Inventory and Evaluation," 1966; Bray, "Wilson's Creek Revisited," 1967; Charles S. Pope, "Historic Structures Report, Part II, Architectural Data Section on Ray House, Wilson's Creek Military National Park," (Omaha: National Park Service, Office of Archeology and Historic Preservation, April 1968), 9. This document contains a photograph of the fencing installed by the National Park Service.

In August of 1966, Bessie McElhaney moved out of the Ray House and into a newly constructed home near the battlefield. Soon after, the Ray House was surrounded with a chain link fence to keep visitors out and architects and archeologists began to study the historic structure and surrounding grounds. In 1966, the earlier fence surrounding the Ray House, installed in 1935 by Glen McElhaney, was removed. By 1969, a new roof and porch were added to the Ray House and the cistern was destroyed. In addition, the unused poles and wires surrounding the house were removed by Southwestern Bell.¹⁸³

During the same year, a native prairie grass establishment program was instituted on 45 acres. In 1967, a grass fire on Bloody Hill burned approximately 12 acres of land. The fire was put out by local fire departments. The native vegetation program was expanded in 1969 as an additional 200 acres was planted in prairie grass.¹⁸⁴

In May 1969, an Environmental Study Area (ESA) was established in the park. The ESA contained a total of 45 acres and was located between the tracks of the Missouri Pacific Railroad and Wilson's Creek, south of the Wire Road and north of the Christian County line, in the location of the former Town of Wilson Creek.¹⁸⁵

Improvement of the interim park headquarters on Highway ZZ was continued in 1967 when the walkways were paved with asphalt. In addition, more than 9,500 feet of the park's boundary was surveyed, monumented, and fenced.¹⁸⁶

In January 1967, Missouri Governor W. Hearnes recommended an additional approval of \$350,000 for the purchase of the remaining desired park lands in Christian County. Throughout the next year, the properties were appraised and negotiations begun for their acquisitions. On August 10, 1968, the federal government accepted deeds to 718 acres completing the acquisition of lands for Wilson's Creek Battlefield National Park. By the end of the year, the total park acreage consisted of just over 1,726 acres.¹⁸⁷

With the acquisition of Christian County lands, the demolition of 'non-historic' structures on park property continued. In the fall of 1968, the Steele residence and farm structures were razed. The Steele residence, a thirty-by-twenty-nine-foot, two-story frame house with seven rooms, burned in October 1968. Additional structures at the Steele residence which were razed included a masonry lined, sod-covered root cellar; an eight-by-ten-foot frame pumphouse; two frame chicken houses, one ten by thirty feet and a second seven by fourteen feet; three barns, one a large forty-by-fiftyfoot frame cow barn with hay loft and adjacent twelve-by-twenty-foot masonry milkhouse, a second thirty-six-by-forty-foot frame hay storage barn with cement floor, and a third thirty-four-by-thirtytwo-foot frame barn with sheet metal roof and cement floor; and a thirdy-two-by-ten-foot frame stock feeder with cement foundation. In January of the following year, 'non-historic' structures on the Ellen Manley, Ray Hampton and Fugitt properties were leveled and burned.¹⁸⁸

After the acquisition of Greene County lands in 1965, park authorities began to control vehicular traffic, closing several minor roads. This may have been a result of efforts to restrict automobile access to certain areas within the park. After the establishment of the tour loop, the old county road

¹⁸³ Park Historian Notes, DRAFT "History of Wilson's Creek," 20, 24.

¹⁸⁴ Park Historian Notes, DRAFT "History of Wilson's Creek," 5, 19.

¹⁸⁵ Park Historian Notes, DRAFT "History of Wilson's Creek," 14.

¹⁸⁶ Park Historian Notes, DRAFT "History of Wilson's Creek," 17.

¹⁸⁷ Park Historian Notes, DRAFT "History of Wilson's Creek," 7-8.

¹⁸⁸ Park Historian Notes, DRAFT "History of Wilson's Creek," 17; Monk, "Archeological Excavations at Eight Sites," 30-31.

following Skegg's Branch from its intersection with the Wire Road to Highway ZZ appears to have been abandoned although a Greene County property owners' plat documents that a road was present in this location in 1964. In addition, after the acquisition of Christian County lands in 1968, it appears that the extension of the Wire Road into Christian County was abandoned as a vehicular thoroughfare. USGS topographic maps from 1960 do not show the Wire Road extending into Christian County, but aerial photographs from 1953 and ca. 1960 document that the road was in use in earlier years.¹⁸⁹

In December 1970, President Nixon signed into law a bill providing \$2,285,000 for the future development of Wilson's Creek Battlefield National Park. In addition, the bill also formally changed the name of the park to Wilson's Creek National Battlefield to conform to NPS nomenclature. "As has been the practice of the Congress in recent years, the various units of the national park system have been renamed to conform to standard categories from time to time as they have come up for consideration. The proposed re-designation of this area is consistent with its role in the overall national park program."¹⁹⁰

In November 1970, the Missouri-Pacific Railroad gave public notice of their intent to abandon the line running through Wilson's Creek Battlefield National Park between Springfield and Crane, Missouri. In June of 1972, the last train passed through the park property and the railroad line was abandoned. Twenty-five acres of former railroad right-of-way were transferred to the NPS in the same year, increasing the total property held within the battlefield to 1,750 acres.¹⁹¹

Beginning in the late 1960s and throughout the 1970s, the NPS initiated efforts to restore the landscape to its 1861 condition. During this period, annual reports were prepared by the acting park superintendents. While short on details, these documents provide valuable insight into the types of restoration activities that occurred. Records from 1968 indicate that 200 acres of land were seeded with native grasses. Two years later, 3 acres were re-seeded with native grasses and oats.¹⁹² Another 28 acres of park property were seeded with native grasses in 1971. By 1973 a total of 230 acres were planted in native prairie grass.

In January 1973, President Nixon allocated only \$83,600 for the annual operation of Wilson's Creek NB. This budgetary setback postponed for several years planned development at the park.¹⁹³

Later that year, a historic cabin located near the town of Battlefield was donated to the Wilson's Creek NB. The cost of moving it to the park was defrayed by contributions from the Greene County Historical Society. Upon receipt, the structure was temporarily roofed in tin and covered with plywood for protection. A steel cable surrounding the cabin and used during transportation was left in place. The structure was placed in temporary storage near park Quarters No. 6 (historic

¹⁸⁹ Greene County Plat Book, Township 28 North, Range 23 West. (Springfield: Lincoln Abstract Company, 1964); U.S.G.S. Topographic Map, Republic Quadrangle, 7.5 Minute Series, 1960; Aerial Photographs, Wilson's Creek. BLJ-2M-61 and 62, and 4M-64 and 65. September 15, 1953 and September 20, 1953; Aerial Photograph, Wilson's Creek. BLJ-3HH-135, September 30, 1968.

¹⁹⁰ U.S. Congress, Committee on Interior and Insular Affairs. "Amending the Act of April 22, 1960, Providing for the Establishment of the Wilson's Creek Battlefield National Park," H. R. 1160, 91st Congress, 2nd Session, Report No. 91-1395, 1970.

¹⁹¹ Park Historian Notes, DRAFT "History of Wilson's Creek," 10-11.

¹⁹² National Park Service, Superintendent's Annual Reports, George Washington Carver National Monument and Wilson's Creek National Battlefield, for 1968-70, 2. (hereinafter Superintendent's Annual Reports.)

¹⁹³ "Battlefield would Get \$83,600," Springfield *Daily News*, January 31, 1973. Ms. in "Wilson's Creek Newspaper Articles" vertical subject files, Wilson's Creek NB Library.

McElhaney residence) until 1986, when it was moved to the former location of the historic Edwards Cabin.¹⁹⁴

By the mid-1970s, the historic McElhaney farm site, adjacent to and southwest of the Ray House, was renovated and prepared for occupation as a park residence. In 1973, a new 500-foot deep well was drilled, a pump house was constructed, and a central heating system installed in the historic residence. Two years later, an electric range was purchased and interior remodeling was completed.¹⁹⁵

By April of 1974, the rails and ties of the Missouri Pacific line were removed from park property. Later in the same year, a new mile-long walking trail was opened at Bloody Hill and split rail fence construction was begun around the interim headquarters along Highway ZZ. The Bloody Hill parking area was also fenced the same way the following year.¹⁹⁶

During the tornado seasons of 1973 through 1975, several small storms in southwestern Missouri caused damage to undeveloped wooded areas in the park, uprooting several trees. As a result, the trailers in the interim headquarters were tied down with cables.¹⁹⁷

In the early 1970s, a rash of vandalism occurred in the park, peaking in 1974–75. Signs were destroyed, fences knocked down, audio equipment was stolen, and interpretive displays were damaged. In addition, areas of marijuana were found growing within the park. As a result, security systems were upgraded in the Ray House and interim headquarters, and ranger patrols were increased. In 1975, new aluminum interpretive battle maps were installed at the Bloody Hill shelter.¹⁹⁸

Sometime between 1968 and 1971, Wilson's Creek NB began to issue special use permits to area farmers. The special use permits were issued in order to reestablish historic scenery, including livestock pasture and corn and oat fields. In 1972, two permits were issued each for a three-year period, one for 155 acres and a second for 300 acres. The permits increased to three in 1974, totaling 462 acres under cultivation. Farmers who leased park lands were required to abide by NPS rules, including a ban on the use of chemical fertilizers.¹⁹⁹

During November 1974 and April and October 1975, archeologists from the University of Missouri conducted a survey and excavation of the southern part of Wilson's Creek NB in Christian County. Archeologists examined the Joseph Sharp House, the T.B. Manley House, the C.B. Manley House, and the Ray House. Attempts were also made to find a second sinkhole and

¹⁹⁴ "Edwards Cabin," Ms. in the vertical subject files, Wilson's Creek NB Library.

¹⁹⁵ Superintendent's Annual Report for 1973, George Washington Carver National Monument and Wilson's Creek National Battlefield, 8; Superintendent's Annual Report for 1975, George Washington Carver National Monument and Wilson's Creek National Battlefield, 6.

¹⁹⁶ C.W. Johnson, "Without Reservation," *Sunday News & Leader*, April 21, 1974.

¹⁹⁷ Superintendent's Annual Report for 1973, George Washington Carver National Monument and Wilson's Creek National Battlefield, 8; Superintendent's Annual Report for 1974, George Washington Carver National Monument and Wilson's Creek National Battlefield, 7; Superintendent's Annual Report for 1975, George Washington Carver National Monument and Wilson's Creek National Battlefield, 5.

¹⁹⁸ Park Historian Notes, DRAFT "History of Wilson's Creek," 20.

¹⁹⁹ Superintendent's Annual Report for 1972, George Washington Carver National Monument and Wilson's Creek National Battlefield, 2; Superintendent's Annual Report for 1974, George Washington Carver National Monument and Wilson's Creek National Battlefield, 5.

locate a previously unknown well. During the project, archeologists examined the potential sites for the location of the new Visitor Center and construction of two new employee houses.²⁰⁰

During the 1970s, a new wayside exhibit plan was developed for the park by NPS personnel from the Branch of Wayside Exhibits located at Harpers Ferry, West Virginia. The plan provided individual wayside exhibits for thirteen historic features and sites located throughout the park, including Gibson's Mill, Ray's cornfield, the Ray House, Price's Headquarters, the sites of Pulaski's light artillery, the rout of Sigel's column, Sigel's attack, the death of General Lyon, the Ray springhouse, Edwards Cabin (1830–1850), Bloody Hill, and the Bloody Hill trails. The majority of the exhibits were composed of single, standard-size carriers located along trails or at parking pull-offs. The Bloody Hill trail included a trailhead dispenser with a self-guided booklet. The Bloody Hill wayside included multiple panels. Some interpretive exhibits had an audio component. The waysides generally were comprised of text panels identifying the history of the sites, their connection to the Battle of Wilson's Creek; and graphic components such as maps and conceptual art of features that existed at the time of the battle.

²⁰⁰ Bray, "Inventory and Evaluation," 1975.



Development of Wilson's Creek as a National Park 1960–1976

Figure 63. Wildfires, 1960s, 1970s, and 1980s.



Figure 64. Vegetation restoration activities, ca. 1960-1976.

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Development of Wilson's Creek as a National Park 1960–1976



Figure 65. Sinkhole before clearing, 1966.



Figure 66. Sinkhole after clearing, 1966.

Development of Wilson's Creek as a National Park 1960–1976



Figure 67. Archeological work in the Gibson House basement in 1967.



National Park Service Development of the Tour Road and Visitor's Center, 1976–2000

Figure 68. This National Park Service brochure predates the construction of the Wilson's Creek National Battlefield Tour Road. The brochure illustrates the recommended route for visitors when touring the battlefield. Farm Road 194 was an important component of the route that was abandoned once the Tour Road was constructed. Closing of this road to through traffic has led to a decline in vandalism within the park.

National Park Service Development of the Tour Road and Visitor Center,

1976 -2002

See figure 69, Historic Period Plan, 1976–2002; figure 70, 1986 vegetative communities; figures 71-81, prescribed burn and vegetative restoration activities between 1980s and 1997; and figure 82, current park brochure, which are located at the end of this section.

1976-1987

Throughout the late 1970s, the park continued to manage its natural and cultural resources. In 1977 and 1978, labor provided by a Youth Conservation Corps (YCC) summer program removed several miles of 'non-historic' hedgerow from the Gibson House and Mill site and the Edgar cemetery. Also during this period, grounds maintenance crews continued to mow approximately 300 acres of park land for prairie management. The purpose of mowing was to control tall thistle and woody growth in the open fields.²⁰¹ According to the "Final Environmental Statement Master Plan" of 1977, the restored grasslands were sown with native grasses as recommended by the Soil Conservation Service. The seed mixture was distributed using the following rates: little bluestem (*Schizachrium scoparium*): 43 percent; big bluestem (*Andropogon gerardii*): 37 percent; Indian grass (*Sorghastrum nutans*): 10 percent; and switchgrass (*Panicum virgatum*): 10 percent. The report further states that at the time, no threatened or endangered species had been identified at the park.²⁰²

In 1978, upgrading of the facilities at the Springfield Southwest Sewage Treatment Plant upstream from the park resulted in better water quality in Wilson's Creek.

The special use permits for grazing and farming were continued within the park into the 1980s while a historic vegetative study and restoration plans was completed. In 1984, the special use classifications for 'grazing' and 'haying' permits were reissued as 'historic leases.'²⁰³

By 1977, restoration of a significant section of the Wire Road was completed. During the following two years, split rail fencing was constructed at the entrance to Bloody Hill and around the Ray House and orchard. In 1979, flooding damaged a one-lane tour loop bridge. The bridge was closed from May to August when a new bridge with a six-ton capacity was completed.²⁰⁴

Other significant changes during this period include the erection of a gate at the entrance to the Bloody Hill interpretive shelter from Highway ZZ in 1979. In addition, a storage shed was erected beside trailer residence #3 in the interim headquarters area. In 1978, legal ownership of the Edgar cemetery was transferred to the park and two and one half miles of the tour road were resurfaced.²⁰⁵

²⁰¹ Superintendent's Annual Report for 1976, George Washington Carver National Monument and Wilson's Creek NB, 4; Superintendent's Annual Report for 1977, [hereinafter] Wilson's Creek NB, 2, 5; Superintendent's Annual Report for 1978, 3, 4.

 ²⁰² National Park Service, "Final Environmental Statement/Master Plan; Wilson's Creek NB; Missouri," 1977.
 ²⁰³ Superintendent's Annual Report, Wilson's Creek NB, for 1984, 2.

²⁰⁴ "Work at Battlefield Could Begin in 1979," *Sunday News & Leader*, July 31, 1977, A28; Superintendent's Annual Report for 1978, 3; Superintendent's Annual Report for 1979, 2.

²⁰⁵ Superintendent's Annual Report for 1978, 3; Superintendent's Annual Report for 1979; Park Historian Notes, DRAFT "History of Wilson's Creek," 38.

As a result of increased vandalism and property damage within the park, Wilson's Creek NB petitioned the Greene County Court to close three roads that passed through the park—Farm Roads 190, 194, and 111—at night. The petition was strongly opposed by area residents who used the roads frequently, but, by the fall of 1977 a compromise was reached. Greene County agreed to close the roads permanently when the Court was notified that construction had begun on the planned new Visitor Center. Later that year, two miles of county roads located within the park, including portions of Farm Roads 190 and 194, were deeded to the federal government.²⁰⁰

In July 1977, a Master Plan for park development was approved and planning and construction for a new Visitor Center was permitted to proceed. In December of 1977, Wilson's Creek NB formally separated from George Washington Carver National Monument.²⁰⁷

By September 1979, the Phase I contract for the construction of a maintenance facility and water, sewage, and utility system, and the planning and construction for landscaping, roads, parking and picnic area was awarded. In September of the following year, the Phase II contract for the construction of a new Visitor Center was awarded.²⁰⁸

During the early 1980s, major construction was initiated for both the Phase I and II developments. In 1980, a sewer line placed near the proposed Visitor Center adversely impacted a Dalton to Woodland period archeological site, 23GR250. Archeologists monitored the construction site and collected artifacts. By early 1981, Phase I construction was completed on the new maintenance building, wastewater treatment plant, utility systems, general landscaping, and a picnic and parking area. In March of the same year, construction was begun on the new Visitor Center. In May 1982, the new facility was dedicated and opened. An associated picnic area south of the Visitor Center was completed in 1984 and consisted of a terraced hillside with 35 picnic tables and benches. In 1985, the Boy Scouts helped to plant trees around the Visitor Center.²⁰⁹

In August 1981, an archeological survey of the proposed routes of a new Tour Road was begun and continued into the following two years. In the spring of 1983, archeological excavations were conducted in conjunction with the restoration of the Ray House. Later in the same year, an archeological survey of a proposed tree removal zone along the central eastern boundary of the park was carried out. In the spring of 1984, phase II mitigation of eight known archeological sites in the path of the proposed tour road was conducted.²¹⁰

In 1984, the contract for a new 4.85-mile tour road through the park was awarded. Groundbreaking ceremonies took place in October, and by September of 1986, the Tour Road was formally opened to vehicular traffic. Several new trails and wayside exhibits were constructed in association with the

²⁰⁶ "Petitions Oppose Closing of Roads near Battlefield," Springfield Leader-Press, August 5, 1977; "Road Closing Plan leads to new 'Battle of Wilson's Creek' Here," Springfield Leader-Press, October 3, 1977; "County puts off action on roads at local Park," Springfield *Daily News*, October 4, 1977, 15.

Park Historian Notes, DRAFT "History of Wilson's Creek," 12.

²⁰⁸ Park Historian Notes, DRAFT "History of Wilson's Creek," 37.

²⁰⁹ Helm, "Construction Monitoring," 1980; Superintendent's Annual Report for 1981, 4; Superintendent's Annual Report for 1982, 3; Superintendent's Annual Report for 1983, 4; Superintendent's Annual Report for 1985, 2. ²¹⁰ Susan M. Monk, "A Preliminary Report on Survey Reconnaissance and Evaluation of the Phase II section of the Proposed Tour Road Right of Way at Wilson's Creek National Battlefield" (Lincoln, NE: National Park Service, 1983); Lynott, et al., "Archeological Survey and Testing," 1982; Monk, "Archeological Survey and Testing of the Proposed Tour Road," 1985; Ray and Monk, "Archeological Survey of Tree Removal Zones," 1984; Monk, "Archeological Excavations at Eight Sites," 1985.

Tour Road. Trails and footbridges were constructed at the Gibson's Mill site, the Guibor's battery pull-off, the west overlook pull-off, and the Price/Pulaski pull-off and overlook.²¹¹

Efforts continued during the early 1980s to develop the interpretive potential of the park. By 1981, the park had begun to 'strip mow' areas within the ESA in the vicinity of the former Town of Wilson Creek to show visitors the location of streets. Also in the same year, the walking trail at Bloody Hill was revised and shortened from one mile to two-thirds of a mile in length. A new section was added and twenty-two interpretive signs were placed along the trail. In 1983, a temporary wayside exhibit at Bloody Hill was placed along Farm Road 194. In addition, more than 4,700 hedge posts were cut and several miles of wire fence removed from the park. Cable and telephone wires leading to the Ray House were buried in 1985 and a power line was removed from the front of the structure and placed outside of the eastern boundary of the park. Split rail fencing was constructed around the new Visitor Center in 1983 and along Farm Road 182 and Highway ZZ in 1984. In 1985, a new two-thirds of a mile long nature trail loop south of and adjacent to the Visitor Center was opened.²¹²

For over a decade, the park had used mowing as their primary tool to manage the growth of woody vegetation in the existing farm and prairie restoration fields. In 1981, the park formally recognized that the initial prairie restorations were merely persisting due to the regularity of these mowing events. It was decided that a new effort to implement native prairie restoration would be initiated, with particular emphasis on the eradication of non-native plant species, the reestablishment of native vegetation, and long-term management of the prairie landscape.²¹³

That year, the park launched a new endeavor—the Long-Term Prairie Management Program. In addition, the park took another important step in reclaiming the native landscape with the termination of two long-standing special use permits for grazing.²¹⁴

In 1983 and 1984, efforts to control 'exotic' species within the park increased. Maintenance personnel received certification by the state to apply herbicides, and weed control began in earnest with target species consisting of Osage orange (*Maclura pomifera*), honey locust (*Gleditsia triacanthos*), musk thistle (*Carduus nutans*), and Eastern redcedar invading farm fields. Maintenance hours were also utilized to clear exotic or adventive plants, including Eastern redcedar, from the Bloody Hill vicinity.²¹⁵

A year later, more than 110 acres of park land were seeded with native prairie grasses, including big and little bluestem and Indian grass, in a cooperative effort involving the Missouri State Department of Conservation.²¹⁶ The species selection has been prevailingly wind-pollinated warm season grasses, although a few forbs have been planted as well. Most of the restoration attempts have been patterned along the lines of the Conservation Reserve Programs in that they are dominated by grasses with few or no insect pollinated species in the "mixes."

²¹¹ Superintendent's Annual Report for 1984, 1; Superintendent's Annual Report 1986, 3.

²¹² Barnett, "The Town of Wilson Creek," 13; Park Historian Notes, DRAFT "History of Wilson's Creek," 30; Superintendent's Annual Report for 1985, 1, 4.

²¹³ National Park Service, "Resources Management Plan and Environmental Assessment for Wilson's Creek National Battlefield," revision, November 1986, II-17-N.

²¹⁴ National Park Service, "Resources Management Plan," II-17-N.

²¹⁵ Superintendent's Annual Report for 1983, 1; "Statement of Management; Wilson's Creek National Battlefield," December 1986, 62.

²¹⁶ Superintendent's Annual Report for 1981, 3; Superintendent's Annual Report for 1983, 1; Superintendent's Annual Report for 1984, 1, 3.

During the early 1980s the park began to more clearly define the park boundaries. In 1981, the eastern boundary of Wilson's Creek NB was surveyed and fenced. Three years later, fences were installed along the western and northern park boundaries. In 1985, barbed wire fencing was constructed on the northern and western boundaries to provide increased protection for the park.²¹⁷ Throughout the early 1980s, the park continued to remove old county roads. In 1981, portions of Farm Road 182 were transferred to Wilson's Creek NB.²¹⁸ Major flooding in 1983 damaged the bridge over Wilson's Creek. Repairs were made later in the year.²¹⁹

In 1982, the Wilson's Creek NB Foundation was reactivated for the purposes of furthering "the acquisition of Civil War historical properties and materials especially those related to the Battle of Wilson's Creek, or usable in the interpretation of the Wilson's Creek battle. To provide the direction and sponsorship of educational programs, publication of materials, and the preservation and promotion of matters that will strengthen the value of our area's natural and cultural resource the Wilson's Creek NB."220

Throughout the early 1980s, visitors to the park began to ride horses on a series of informal trails and old roads. When horseback riding increased dramatically in 1985, the park responded by drafting a plan for the development of formal fifteen-mile hiking, and six-mile equestrian trails.

As the new Tour Road neared completion, the NPS began to prepare for its opening by removing the remaining vestiges of all old roads and earlier park facilities. In 1986, 2,400 trees were planted to screen the Tour Road. During the same year, the picnic area on Highway ZZ was removed and access to the park from Farm Roads 194 and 111, Bloody Hill and Highway ZZ were closed. "Only that portion of Farm Road 194 leading to Building No. 6 was retained." In September of 1986, the Tour Road was opened to visitor traffic.²²¹

In 1985, after several years of negotiation, the approximately one-half-acre Manley cemetery was acquired by Wilson's Creek NB.

Work on several cultural resources was continued or completed in 1986. The historic log cabin donated by the Greene County Historical Society was moved from its temporary storage location at Building No. 6, and placed on the former site of the Edwards Cabin. Nearly two miles of the Wire Road was restored to its original location in the vicinity of the Town of Wilson Creek. The Ray springhouse restoration was completed and an early-twentieth-century addition to it was demolished. In 1987, twelve apple trees were planted adjacent to the Ray House to re-establish a historic orchard.222

During 1986, parts of Gibson's Mill were damaged by erosion and frequent flooding. Two beams were washed up from the site onto the east bank of Wilson's Creek.²²

²¹⁷ Superintendent's Annual Report for 1981, 3; Superintendent's Annual Report for 1984, 4; Superintendent's Annual Report for 1985, 2.

 ²¹⁸ Superintendent's Annual Report for 1986, 3.
 ²¹⁹ Superintendent's Annual Report for 1983, 4.

²²⁰ "Wilson's Creek Foundation, Inc. 'By-Laws of Wilson's Creek National Battlefield Foundation," Ms. in the vertical subject files, Wilson's Creek NB Library, 1; Superintendent's Annual Report for 1986, Wilson's Creek National Battlefield, 4.

²²¹ Superintendent's Annual Report for 1986, 3.

²²² Superintendent's Annual Report for 1986, 4; Superintendent's Annual Report for 1987, 4.

²²³ Superintendent's Annual Report for 1986, 6.

Also in 1986, the NPS entered into a contract with the Missouri Department of Conservation to conduct a study of the park's historic vegetation. Botanist Greg Gremaud completed a document entitled "Wilson's Creek National Battlefield - A Plan for Restoration of the Historic Vegetation," which included an assessment of the park's current vegetation and recommendations relating to the restoration of the battlefield to its 1861 appearance. Gremaud's map identified the then-current vegetation types within the park. His vegetation community map continues to be used by the park today to document restoration activities.²²⁴

Also in 1986, the park staff began to realize that to achieve the goal of the resource management program would require more funding than were available. This crucial realization is expressed in the park's 1986 Statement for Management: "As a rapidly developing park, Wilson's Creek is faced with the challenge of not only setting up the initial resource management program but dealing with immediate resource management problems and planning for the future with a very limited staff. Current time available for the resource management program is minimal, in spite of great need."²²⁵

Fortunately, park staff was able to request assistance from the Missouri Department of Conservation for the monitoring of rare plant species located within the park. Such species included bladderpod (*Lesquerella filiformis*) and royal catchfly (*Silene regia*).

Another concern relating to the restoration of the landscape to its 1861 condition was conveyed in the 1986 report: "A major problem that affects the battlefield is one of water quality. Lack of baseline water quality data seriously hampers management response to offsite impacts of industrial development and suburban housing. Subsurface water and total watershed studies are needed, as well as the more obvious surface data base. There are eight water sources within the boundaries of Wilson's Creek NB including Wilson Creek itself. Since the turn of the century, the city of Springfield dumped sewage into Wilson Creek. In 1977–78, the Southwest Sewage Treatment Plant was built to reduce this problem, but at least 10 sludge spills have occurred in the last few years. In addition, in the 1970s, Solid State Electronics, Inc., a major toxic chemical polluter, used lagoons a half mile from the park boundary to store copper waste products which have been proven to be extremely toxic. No studies on the potential impacts of these lagoons have been done. The spreading of sludge (of unknown composition) for fertilizer on farm fields also occurs all around the park. Finally, the U.S. Environmental Protection Agency has identified Wilson's Creek NB as a possible site for dioxin concentrations."²²⁶

In April 1987, the new 4.85-mile Tour Road was dedicated and formally opened. The road was eighteen feet wide and consisted of one twelve-foot vehicle lane, and one six-foot pedestrian lanes. Eight pull-off areas edged the road to provide access to waysides and/or trails interpreting Gibson's Mill, the Ray House and cornfield, Pulaski Arkansas Battery and Price's headquarters, Sigel's second position, Sigel's final position, Guibor's battery, Bloody Hill, and a historic overlook. Three of the pull-offs—Gibson's Mill, Pulaski Arkansas battery and Price's headquarters, and Bloody Hill—led to one-mile walking trails. Shorter trails led to the Ray House and the East Battlefield Overlook.²²⁷

²²⁴ Lisa Potter Thomas, "Wilson's Creek National Battlefield Historic Landscape Restoration Status Report – Restoration Monitoring FY90 through FY92" (Republic, MO: National Park Service, December 1992).

²²⁵ National Park Service, "Statement for Management, Wilson's Creek National Battlefield" (Republic, MO: December 1986).

²²⁶ National Park Service, "Statement for Management."

²²⁷ Superintendent's Annual Report for 1987, 2.

1988-1993

In 1988, in an effort to regulate hiking and horseback riding, the park proposed a trail system that was intended to minimize the impact of active recreation on cultural features and the local ecosystem. In 1989, a formal equestrian trail was opened and visitor usage dramatically increased. Accommodations built to support the equestrian trail included a horse trailer parking lot, and wooden hitch rails.²²⁸

Throughout the late 1980s, the enhancement of the park's cultural and natural resources continued and existing facilities were repaired or upgraded. Vistas were cleared in 1988 at the Pulaski battery site and along Wilson's Creek between the East Battlefield Overlook and Price's headquarters. Osage orange tree removal continued in many areas around the battlefield. In the area of Tour Road bridges #1 and #2, 150 new trees were planted. Fire history records maintained online by NPS staff indicate that approximately six different management units were burn managed in 1988 and 1989, including a 130-acre fire on Bloody Hill. In 1989, a 6-acre warm season grass restoration plot was established at the Ray House.²²⁹

In 1988, a new roof was placed on Quarters No. 6, the McElhaney House, and both front and back porches were replaced. The solar panel system was removed and a new roof placed on the Visitor Center. A new irrigation system was also installed in the Visitor Center lawn. Based on recommendations from a 1988 Trail Study, existing trails were rehabilitated and work was begun on one and one half miles of new pedestrian and equestrian trails in the park. In addition, a bridge on the Gibson's Mill trail was constructed. A concrete pad was poured and cooking grill constructed for a picnic pavilion, located near the Visitor Center, that was donated by the Wilson's Creek NB Foundation. Also in 1988, the eastern and northern boundary fences were repaired. An archeological survey was conducted by the Missouri Highway and Transportation Department in the vicinity of Highway ZZ where it passed through Wilson's Creek NB prior to its proposed relocation. The survey located and identified site 23GR680, the remains of the historic Short/McKeel farm. A year later, three and one half miles of Highway ZZ were closed for realignment between its intersection with Highway M and Bloody Hill.²³

In 1990, a Historic Landscape Restoration Action Plan was drafted that was used to guide restoration resource management activities within Wilson's Creek NB during the early to mid-1990s, although it was never signed by the Superintendent. Restoration activities during this time period included prescribed burns, selective tree and shrub removal, control of non-native and invasive species, and the installation of native grasses and forbs in various locations throughout the park. During the early 1990s, the park also began to monitor the progress of the restoration areas by collecting baseline data and documenting the effects of fire on exotic or adventive species. The

²²⁸ National Park Service, "Resources Management Plan, Revision November 1986: II-15-N; National Park Service, "Statement for Management," 32; Superintendent's Annual Report for 1986, 7; National Park Service, "Trail Study, Wilson's Creek National Battlefield" (Republic, MO: January 1988), 4; Superintendent's Annual Report for 1989,

^{4.} ²²⁹ National Park Service Wilson's Creek National Battlefield website

http://www.nps.gov/gis/park_gisdata/missouri/wicr.htm.; Superintendent's Annual Report for 1988, 2-4; Superintendent's Annual Report for 1989, 2. ²³⁰ Superintendent's Annual Report for 1988, 2-4; Superintendent's Annual Report for 1989, 3.

results were used to assess the performance of restoration activities on the various units and to appropriately plan future management activities.²³¹

For example, prescribed burning and selective clearing of Osage orange and black locust trees was undertaken during the early 1990s. In 1990, warm season grasses were planted in the Ray orchard. In 1991, 40 acres were selected cleared and more than 300 acres burned at Bloody Hill. During the same year, 34 acres of Bloody Hill were planted in warm season grasses and forbs. In 1992, 90 acres were planted in native grasses and forbs, and 30 acres of woody vegetation and more than 90 acres of cool season grasses were treated. In addition, native plant seeds were redistributed on limestone glades to counter increased competition from exotic species. In 1993, more than 5,200 non-native trees were removed from the park and 169 acres planted with warm season grasses and forbs.

Monitoring of bladderpod continued with a significant rise in the number of plants observed in 1991. Records indicate that 303,500 plants were found on the Bloody Hill glade in 1991, compared to 9,500 plants in 1990; 31,911 plants in 1989; and 58,350 plants in 1988. Mild weather and adequate moisture were partially credited with the rise in numbers. Prescribed fire and the control of invasive species were also likely to have contributed to the positive results, as records also indicate that more than 300 acres of land were burned in 1991, including areas of Bloody Hill.²³²

The issue of water quality continued to be a concern due to 'operational problems' at the Southwest Municipal Treatment Plant. The park was forced to post water quality hazard signs at creek access points to protect the public. Water quality tests were conducted at the park's laboratory during this time.²³³

It was also during this period that more than 400 seedlings were planted to screen out development on the eastern and western boundaries, and with the cooperation of the Missouri Highway and Transportation Department, 100 trees were planted along Highway ZZ approaching the park.

Beyond park borders, concern over the viewshed of Wilson's Creek NB emerged in the mid-1980s. In 1985, the Greene County Zoning and Planning Commission was petitioned to establish an 89-acre quarry one-half mile northeast of the park. The quarry petition was defeated with a substantial amount of public support. In addition, a power line with 80-foot-tall poles, a 54-footwide span and a 150-foot-wide clear-cut was proposed to be constructed near the park. In response to this development, park officials worked closely with the Greene County Zoning Commission to draft standards that would enable growth in the area surrounding Wilson's Creek NB, but limit visual intrusions to the historic scene. Within the park, 'no-cutting' zones were established in 1993 for limiting viewsheds.²³⁴

During the early 1990s, several existing facilities were updated or repaired. In 1991, a dechlorination station was installed at the wastewater treatment plant, and a maintenance equipment storage building for vehicles was constructed. The following year, a new addition to the maintenance building was constructed and that included an office, restroom, and break room. In addition, all known underground storage tanks within the park were removed and replaced with one large above ground tank. Due to leaking, in 1993 the skylight to the Visitor Center Library was

²³¹ Lisa Potter Thomas, "Wilson's Creek National Battlefield Historic Landscape Restoration Status Report – Restoration Monitoring FY90 through FY92," December 1992.

²³² Lisa Potter Thomas, "Wilson's Creek National Battlefield Historic Landscape Restoration Status Report – Restoration Monitoring FY90 through FY92," December 1992.

²³⁴ Park Historian Notes, DRAFT "History of Wilson's Creek," 3.

removed and a new roof added. In the same year, flooding caused major damage to several trails and unsurfaced roads, and a headwall to a concrete pipe culvert under the Tour Road was replaced. A parking area pull-off developed a sinkhole that required filling.²³⁵

In 1992, funding was received to move the interpretive site at the trailhead of Bloody Hill to a less intrusive location. A year later, the exposed cellar walls at the Gibson House site, which were collapsing from archeological excavations originally conducted in 1966, were backfilled with clean materials.²³⁶

1994-2002

By the mid-1990s, the old septic facility constructed in 1980 needed to be replaced. In late 1994 and 1995, an archeologist from the NPS Midwest Archeological Center conducted a survey of the proposed site for the new wastewater treatment plant, and later monitored the controlled stripping on the western edge of 23GR245, a large prehistoric site. In 1996, the new septic facility was completed.²³⁷

Several of the park's facilities were upgraded or replaced in the mid- to late 1990s. In 1995, new wooden hitch rails were installed along the horse trailer parking lot. A year later, the Tour Road entrance was widened by ten feet. In 1998, three new park structures were erected-a forty by fifty foot fire cache in the maintenance compound, a hazardous materials storage structure, and a recyclable materials storage structure. In addition, the twenty-year-old Visitor Center parking lot was repaved.238

During the same period, several other structures were acquired to accommodate new programs. In 1995, a modular building was purchased and placed in the maintenance compound to house the Prairie Cluster Long Term Ecological Monitoring Program.²³⁹

In 1994, the Prairie Cluster Long Term Ecological Monitoring (LTEM) Program was established to monitor prairie units within six regional parks, including Wilson's Creek NB.²⁴⁰ Inventory and monitoring projects initiated at the park as part of this project included insect surveys, establishment of a weather station, and monitoring of bladderpod and western prairie fringed orchid (Platanthera *praeclara*) populations.²⁴¹

LTEM program activities continued throughout the 1990s and included an active prescribed fire program and numerous small-scale restorations.²⁴² Fire history records maintained online by the NPS indicate that several management units were burned between 1990 and 1998. The frequency of prescribed burns from 1988 through 1998 in the various restoration management units ranged from

²³⁵ Superintendent's Annual Report 1991, 6; Superintendent's Annual Report 1992, 3; Superintendent's Annual Report 1993, 3-4.

Superintendent's Annual Report 1992, 4.

²³⁷ Vergil Noble, Trip Report, November 29 - December 2, 1994; Superintendent's Annual Report 1996, 8.

²³⁸ Superintendent's Annual Report 1995, 6; Superintendent's Annual Report for 1996, 8; Annual Narrative Reports of Superintendents and Regional Directors 1998, 5.

Superintendent's Annual Report for 1995, 6-7.

²⁴⁰ Superintendent's Annual Report for 1990, 2; Superintendent's Annual Report for 1991, 5; Superintendent's Annual Report for 1992, 2-3; Superintendent's Annual Report for 1993, 2-3.

²⁴¹ Superintendent's Annual Report for 1995, 7.

²⁴² Superintendent's Annual Report for 1998.

six burns during the ten-year period, to no burns at all.²⁴³ Efforts to re-establish the native prairie and woodlands, and control exotic species were carried out through selective cutting and controlled burning into the mid- to late 1990s. In 1995, 403 acres of prescribed burning were carried out. In 1996, 222 acres were burned, and in 1997, 320 acres were burned. In 1998, 300 acres were burned. On occasion, herbicide was also used to control exotic species. In addition, native grasses were seeded and bare-root forbs were planted in 1996 and 1997 to support the prairie restoration efforts.²⁴⁴

In 1995, the right-of-way for the power line running through Wilson's Creek NB was clear-cut. Resource Management staff accompanied the utility company team to ensure that a maximum vegetative buffer remained along the Tour Road.

Few improvements to the park's historic resources were carried out during this period. In 1995, a new oak deck was laid and stringers were replaced on the iron truss bridge over Wilson's Creek. In 1997, the view from the East Battlefield Overlook was improved by clearing vegetation.²⁴⁵ In 1998, a demonstration vegetable garden was planted at the Ray House.²⁴⁶

In 1998, work was begun on removing Ozark Electric's power lines and poles from areas within the park.²⁴⁷ This work has not yet been completed.

In 1999, the park contracted with JMA (formerly OCULUS) to prepare this Cultural Landscape Report (CLR). Parts I & II of the report were to be completed in support of a concurrent effort undertaken by the park and the Midwest Regional Office of the NPS to develop a General Management Plan (GMP) for the park. As noted in the first draft of the GMP published in May 2000, "Wilson's Creek NB has operated under a master plan finalized in 1977. Since the completion of the master plan, the park has changed significantly. For example, the Visitor Center and the Tour Road were constructed in the wake of the master plan. ... The general management plan for Wilson's Creek NB will outline alternative management strategies to achieve appropriate resource conditions and visitor experiences at the park. The GMP will also establish a decision making process that will enable park staff to address future issues and solve problems as well as provide direction and guidance for achieving the park's desired future conditions."²⁴⁸

The final park GMP was published in April 2003. During summer 2004, JMA completed Part II of the CLR. The work focused on treatment recommendations to support natural and cultural resource management, and the implementation of the GMPs Preferred Alternative.

²⁴³ National Park Service Wilson's Creek National Battlefield website <u>http://www.nps.gov/gis/park_gisdata/missouri/wicr.htm</u>.

²⁴⁴ Superintendent's Annual Report 1995, 11; Superintendent's Annual Report 1996, 8; Superintendent's Annual Report for 1997, 9-10; Annual Narrative Reports of Superintendents and Regional Directors 1998: 5-6.

²⁴⁵ Superintendent's Annual Report for 1995, 10; Superintendent's Annual Report for 1997, Battlefield, 9.

²⁴⁶ Superintendent's Annual Report for 1995, 6; Annual Narrative Reports of Superintendents and Regional Directors 1998, 2.

²⁴⁷ Annual Narrative Reports of Superintendents and Regional Directors 1998, 5.

²⁴⁸ National Park Service, DRAFT "Environmental Impact Statement; General Management Plan; Wilson's Creek National Battlefield • Missouri" (Denver: Denver Service Center, May 2000), 4.

National Park Service Development of the Tour Road and Visitor Center, 1976–2000







National Park Service Development of the Tour Road and Visitor Center, 1976–2000

Figure 71. Vegetation restoration activities, 1980s.



Figure 72. Prescribed burn units, 1988.

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Source: Wilson's Creek NB



National Park Service Development of the Tour Road and Visitor Center, 1976–2000

Figure 73. Prescribed burn units, 1989.



Figure 74. Prescribed burn units, 1990.



National Park Service Development of the Tour Road and Visitor Center, 1976–2000

Figure 75. Prescribed burn units and vegetation restoration activities, 1991.



Figure 76. Prescribed burn units and vegetation restoration activities, 1992.

National Park Service Development of the Tour Road and Visitor Center, 1976–2000



Figure 77. Prescribed burn units and vegetation restoration activities, 1993.



Figure 78. Prescribed burn units, 1994.

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National Park Service Development of the Tour Road and Visitor Center, 1976–2000

Figure 79. Prescribed burn units, 1995.



Figure 80. Prescribed burn units, 1996.



National Park Service Development of the Tour Road and Visitor Center, 1976–2000

Figure 81. Prescribed burn units, 1997.

Source: Wilson's Creek NB



National Park Service Development of the Tour Road and Visitor Center, 1976–2000

Figure 82. The current National Park Service brochure plan for Wilson's Creek National Battlefield.



Chapter Three • Existing Conditions Documentation

CHAPTER THREE

EXISTING CONDITIONS DOCUMENTATION

Environmental Context and Setting

Wilson's Creek National Battlefield (NB) is located within the western Ozarks of southwestern Missouri. The region is known as the Springfield Plateau, an undulating plain that extends west into northeastern Oklahoma, and is bounded on its north and east by the Missouri and Mississippi River valleys and on its south by the Arkansas River valley. The park is located ten miles southwest of the city of Springfield and one mile east of the city of Republic, Missouri, and spans the Greene-Christian County line. U.S. Highway 60 and Interstate 44 traverse Greene County in an east/west direction to the north of the park, providing a connection to the burgeoning county seat of Springfield. Other major routes nearby include U.S. Routes 160 and 65, which travel south from Springfield to the east of the park.

The terrain of the area ranges from gently rolling or undulating to relatively level, although the margins of stream corridors and floodplains are often marked by escarpments and steep embankments. Elevations in the vicinity of the park range from approximately 1400 feet above mean sea level atop nearby knolls, to approximately 1100 feet above mean sea level along the Wilson's Creek corridor.

Limestone, dolomite, sandstone, and shale dominate the geology of the Springfield Plateau. Local limestone has long been quarried as a construction material. Regional deposits of zinc and lead ores have also been mined over the past century. There are also areas of rock outcroppings in a range of sizes. The landforms associated with the local geology—known as karst—are "the result of weathering in the underlying, calcium-rich limestone. Over millions of years the ground water that has percolated through fractures in the limestone has slowly dissolved and enlarged the fractures until the bedrock is a network of tunnels and caves."¹ As noted in the Greene and Lawrence Counties soil survey, "Greene County has more known caves than any other county in Missouri. Fantastic Caverns and Crystal Cave in Greene County…are the largest and best known."² The limestone-based geology is also prone to losing streams and the development of sinkholes, which are "closed depressions in the land surface caused by the solution and collapse of underlying beds of limestone."³

Wilson's Creek, which flows through the heart of the park, is a major tributary of the James River. The James River flows 99 miles from its headwaters in Webster County to Table Rock Lake near the Arkansas state border. Wilson's Creek drains an 84-square-mile watershed area, including the western portion of the City of Springfield.

¹Jerry A. Dodd, "Soil Survey of Christian County, Missouri" (Washington: U.S. Government Printing Office, May 1985), 69.

²Harold E. Hughes, "Soil Survey of Greene and Lawrence Counties, Missouri" (Washington: U.S. Government Printing Office, March 1982), 3.

³Hughes, "Soil Survey of Greene and Lawrence Counties, Missouri," 4.

Missouri's weather is typically hot during the summer, and cool in the winter. Precipitation averages 39 inches per year, and is well distributed throughout the seasons. As noted in the Greene and Lawrence Counties soil survey, rainfall supports the local water supply as

water easily moves downward and laterally through the well-drained soils, permeable residuum or the cracks and solution channels in the [limestone] bedrock. Much of the rainwater becomes a part of the underground water supply. Some water emerges again at a lower level as springs and enter the surface water drainage system. In some places, small streams enter underground channels, then resurface a considerable distance downstream.⁴

The availability of springs, free-flowing streams, and well sites has traditionally provided "a constant water supply... one factor that has allowed human occupation to become a year round activity in this region."⁵ Although free-flowing streams still provide water for livestock, water for residential, commercial, and industrial use is now drawn from deep wells. Pollution of the streams and springs can potentially occur from various point and non-point sources, including water treatment plants, dairy cattle operations, poultry husbandry, coal pile runoff, runoff from urban areas, and seepage from septic tanks. Because of the local geology, "ground water consists of primary aquifers in limestone, dolomite and sandstone formations."⁶ Within the karst region, "surface water that enters sinkholes or losing streams percolates downward through the permeable soils and bedrock openings and recharges the ground water aquifer. Due to this infiltration, the numerous water wells and springs that tap the groundwater aquifer can be affected by the presence of contaminants in a sink or losing stream."⁷

The region is a transition zone that forms the western edge of the Eastern hardwood forest vegetation association, but also includes areas of savanna and prairie that are typical of the landscape further to the west. Dominant tree species of the Eastern hardwood forest, including various oaks and hickories, characterize the open woodlands of the region. Otherwise, "vegetation is variable in this area depending to a great deal on slope and soil type."⁸

Land uses have had a tremendous impact on vegetation. Since historic settlement of the region by European-Americans in the 1830s, farming has been the dominant land use, particularly the grazing of livestock on grass fields, and the cultivation of crops. Agricultural uses, including cropping, commercial forestry, and particularly grazing, dominate the landscape today, although residential subdivision and industrial developments continue to grow. Even the croplands and woodlands are frequently grazed at some time during each year. Livestock operations that dominate the regional economy include dairy farming, beef cattle and feeder pig production, and swine finishing, as well as the raising of chickens for egg and broiler production. Cultivation of "feed and cash-grain crops is concentrated on the best uplands, river bottoms, and terraces available and needed for these uses. The major crops are wheat, soybeans, grain sorghum, and corn."⁹

⁴Hughes, "Soil Survey of Greene and Lawrence Counties, Missouri," 4.

⁵ Susan M. Monk, "Archeological Survey and Testing of the Proposed Tour Road, Wilson's Creek National Battlefield, Missouri" *Occasional Studies in Anthropology Number 11* (Lincoln, NE: National Park Service, Midwest Archeological Center, 1985), 2.

⁶Monk, "Archeological Survey and Testing," 2.

⁷ Dodd, "Soil Survey of Christian County," 69.

⁸ Monk, "Archeological Survey and Testing," 2.

⁹ Hughes, "Soil Survey of Greene and Lawrence Counties," 5.

While much of the surrounding countryside has traditionally supported agricultural activities, the City of Springfield and nearby communities within Greene and Christian Counties have been experiencing tremendous population growth and associated suburban development since the 1960s. Springfield, for example, experienced a 12.7 percent increase in total population between 1990 and 1996, nearly three times the statewide growth rate. The outlook for the next thirty years is one of large growth in all of the suburban counties around Springfield. The open country associated with Christian and adjacent rural counties is also growing at a rapid rate. Current projections suggest that the local population will more than double in size by 2020. In support of the management of projected growth, Greene County has adopted comprehensive planning, with three categories of development rights, including five-acre largest lot development. Christian County, however, has never had a zoning ordinance or comprehensive plan, and therefore has no restrictions on potential development. Currently, the land uses associated with parcels abutting the park remain agricultural and residential, and as yet there are no commercial developments along the perimeter of the park.

Wilson's Creek NB currently draws upwards of 200,000 visitors per year. Many of these visitors are interested in the park's Civil War history and its interpretive program. Others visit in order to take advantage of the park's many recreational opportunities. Visitors can currently combine a visit to the park with trips to other local historic sites and other resources with Civil War associations. Along Highway ZZ just west of the park, for example, is General Sweeny's Museum of Civil War History. The museum houses and displays a collection of unusual and rare items from the Civil War's western theater amassed by Dr. Tom Sweeney, a descendant of Union Gen. T.W. Sweeney. Springfield National Cemetery, located in downtown Springfield, is one of a nationwide system of burial grounds established after the Civil War by the United States Government for the interment of military personnel. Many of those who lost their lives during the Battle of Wilson's Creek, and were first buried on the battlefield, were later reinterred at Springfield National Cemetery. Two other sites within Springfield that are of interest to those investigating the region's Civil War history include The Library Center and the Greene County Archives and Records Center, both of which house various Greene County and Springfield records. To further regional recreational opportunities, the City of Springfield and Greene County are developing plans to establish a greenway as part of the County's Comprehensive Plan. The plan identifies potential transportation initiatives, and park, open space, and greenway concepts that may include a trail connection to Wilson's Creek. This connection, referred to in the plan as the South Creek/Wilson's Creek Greenway, would follow Wilson's Creek. The greenway concept is intended to preserve significant natural resources, provide transportation alternatives, and connect various elements of the community. Wilson's Creek NB personnel are involved in this cooperative planning effort.¹⁰

Wilson's Creek NB is a popular destination for school groups. The park provides educational programs to many local school districts. These programs are in great demand. The National Park Service (NPS) currently plans to expand the park's Visitor Center, which will facilitate educational opportunities for school groups.

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¹⁰ Much of this information is derived from the May 2000 DRAFT General Management Plan, 23.

Site Description

See figure 83 for map representation of Wilson's Creek National Battlefield, and figure 84 for local watersheds, which are located at the end of this section. Photographs referenced are located later in the chapter.

Wilson's Creek NB is composed of 1,749.91 acres (approximately 22 acres of which are included in non-federal road right-of-ways). These lands constitute the majority of the area over which Union and Confederate forces clashed on August 10, 1861. Since the 1960s, the site has been administered by the NPS as a historical park open and interpreted to the public. Interpretation of the battlefield landscape is available primarily through self-guided tours. Guided tours by park rangers are available by appointment. The park also hosts numerous programs and special events throughout the year. Each year on the morning of August 10, the anniversary of the battle is observed with a special program and ceremony. A special candlelight tour of the battlefield is offered on the weekend nearest the battle anniversary. Each Sunday afternoon between Memorial Day and Labor Day, living history programs that depict Civil War soldier life, cavalry drills, musket firing, artillery demonstrations, Civil War medicine, and Civil War period clothing are held at the park. Guided tours of Bloody Hill are usually available on summer weekends as well. Other special programs are offered periodically during the rest of the year.

The site is currently listed on the National Register of Historic Places as a nationally significant property based upon its association with the Civil War Battle of Wilson's Creek. The park's 1976 National Register Nomination notes "Wilson's Creek National Battlefield preserves in a fair degree of integrity, although vegetative conditions have altered, virtually the whole of the scene of the battle."

The park is generally configured in the shape of a rectangle that parallels the north/south orientation of Wilson's Creek above its intersection with Terrell Creek. The northern half of the park is located within Greene County, and occupies portions of Sections 23, 24, 25, and 26 within Township 28 North, Range 23 West; the southern section of the park is located within Christian County, and occupies portions of Sections 35 and 36 of Township 27 North, Range 23 West.

The primary geology associated with the park is known as the Burlington-Keokuk formation, a cherty limestone. Soils identified within park boundaries include Newtonia, Pembroke, Peridge, Huntington, Secesh-Cedargap, and Waben-Cedargap silt loams, Wilderness and Goss cherty silt loams, Goss-Gasconade complex, and Gasconade-Roc outcrop complex. The silt loams are generally well suited to agriculture, including cropland, pasture, and trees. The cherty silt loams are moderately well suited to agriculture, particularly grass fields and pasture, and trees. The Goss-Gasconade complex is less well suited to agriculture, and is used primarily for grassland pasture or is allowed to revert to woodland. The Gasconade-Roc rock outcrop complex is typically maintained in idle woodland, and at best is marginally suited to pasture.

The landform associated with the park is defined primarily by the Wilson's Creek valley that cuts through the central portion of the site from north to south. A series of upland knolls, separated by smaller drainages, edge the creek valley. Elevations generally range from approximately 1100 feet above mean sea level along the creek, to more than 1250 feet atop the knolls. The most prominent landform is located along the park's western boundary. It has been known as Bloody Hill since the Civil War Battle of Wilson's Creek. In most cases, long views of the surrounding landscape are afforded from the park's upland knolls. From the lower-lying areas that are maintained in open vegetative cover, the knolls are striking focal points.

Wilson's Creek, for which the Civil War battle was named, originates in the heart of the City of Springfield. It appears that the creek's water quality improved substantially during the latter part of the 1990s due to treatment plant upgrades. Fish were observed in the creek during field investigations conducted in spring of 2000. However, the creek remains impaired by pollution. Treatment of Springfield's sewage and stormwater is handled at the Southwest Sewage Treatment Plant one and one-half miles upstream from Wilson's Creek NB. Various studies of the creek and its water quality have indicated that the system has been negatively impacted by effluent. As noted in the 1986 Statement for Management: "water coliform count, clarity, odor, dissolved oxygen content, and pH levels are frequently unacceptable. Visitor and local resident complaints are numerous, and at times it is unpleasant to even walk near the stream." In 1993, the *Civil War Sites Advisory Commission Report on the Nation's Civil War Battlefields* cites the pollution of Wilson's Creek by these upstream sources as a threat to the integrity of the battlefield.

Within park boundaries, Wilson's Creek typically measures thirty to thirty-five feet in width, and is five to six feet deep. The banks and floodplains to either side of the waterway are predominantly wooded, as are the margins of the park's other perennial and intermittent streams and drainages. Woodland cover is also associated with the park's steep slopes and the tops of the some of its knolls. Areas dominated by woody cover are generally comprised of either open hardwood savanna, scrubby successional growth, or by Eastern redcedar trees. Based on field observations, the majority of the woodland cover is less than sixty years old, although there are scattered individual trees that are older.

A large portion of the park is maintained in open fields composed of either prairie communities in various stages of restoration, or agricultural fields maintained in fescue cover that is hayed seasonally. The agricultural fields are concentrated in two large areas, one located in the northeastern corner of the park, and the other in its south-central area. The NPS leases these to local farmers through their historic lease program in order to replicate the crop or hay fields thought to have existed in these locations at the time of the battle. Prairie restoration areas are located in various portions of the park. Since the 1960s, NPS has established, monitored, and maintained prairie communities as part of a Civil War battlefield scene restoration program.

Public roads edge or traverse portions of the park. Farm Road 182, also known as Elm Street, traverses the northwestern corner of the park before forming a part of its northern boundary. Highway ZZ similarly traverses the northwestern corner of the park before forming its western boundary. Farm Road 111 edges the northeastern corner of the park.

The most prominent road corridor within the park is the 4.85-mile Tour Road. Constructed in the 1980s, this road forms a loop within the heart of the site. It replaced earlier use of existing public roads to access the park's historic resources. The public roads have since been gated and closed to through traffic. Portions of former public roadways continue to be used as maintenance access routes and trails. The eastern section of the Tour Road is sited atop a portion of a former rail line grade associated with the Missouri-Pacific Railroad that was abandoned in the 1970s. Elsewhere within the park, portions of the rail line bed survive as a trace in the landscape. Another trace road that is evident within the Wilson's Creek landscape is the nineteenth-century Wire (or Telegraph) Road, which existed at the time of the Civil War. Currently closed to visitor vehicular traffic, the Wire Road trace is part of an interpretive trail system that is also used by horseback riders. Other circulation systems that exist within the park include access roads leading to the Visitor Center, maintenance area, and the McElhaney House (Building No. 6); and various pedestrian interpretive trails leading to important historic features and views.

One of the battlefield's most significant resources is the Ray House, constructed circa 1852, which serves as one of only three known surviving pre-Civil War structures within the Springfield-Greene County metropolitan area. A limestone springhouse associated with the Ray property is also thought to survive from the antebellum or early settlement period. Other extant features that likely survive from the Civil War period include the trace of the Wire Road; two sinkholes and a well that were used to bury soldiers killed in the battle; site landform, topography, and hydrology; and various views. Post-Civil War agriculture has heavily altered park vegetation. The park is currently working to restore historic vegetation cover and patterns as an aid to battle interpretation.

The park also exhibits evidence of extensive prehistoric use and occupation in the form of archeological deposits. Known resources include artifacts and evidence of seasonal campsites. There are also numerous known structural ruins and subsurface foundations and other archeological features scattered throughout the park that can be attributed to various historic periods. The NPS's knowledge of these resources is explored in detail at the end of this chapter.

The buildings, structures, and small-scale resources located within the park that post-date the Civil War period include an early-twentieth-century farmstead cluster, late-twentieth-century park development features such as the Visitor Center and maintenance complexes, a 1928 monument located on Bloody Hill that commemorates the Civil War Battle of Wilson's Creek, fencing to depict historic field patterns and to mark park boundaries, and various bridge, culvert, and interpretive wayside exhibits associated with the Tour Road and pedestrian interpretive trail system. The NPS currently plans to enlarge the existing Visitor Center to accommodate various needs.

There are also two utility easements that traverse the park. One is associated with an overhead electric transmission line, and the other with two underground pipelines. Of the two underground pipelines, one is not currently in use. The second carries a fiber optic communication line. The overhead electric transmission line is slated to be removed at some time to support restoration of the park's historic viewshed. Visible from many areas of the park is a 390-foot-tall smokestack associated with a nearby City Utilities of Springfield power generating plant.

Numerous conditions at the park require continual attention by management personnel to ensure the safety of visitors and protection of natural and cultural resources. Threats to park resources include wildlife poaching, unauthorized archeological resource collecting, vandalism, and active recreational uses such as horseback riding. Park personnel work to protect known and potential archeological resources and sensitive historic and natural resources. Critical natural resources requiring protection include caves, limestone glades, rare species habitats, fragile and unstable soils, and steep slopes. The control of feral animal populations, recreational activities of visitors, unauthorized access to the park, cave use, and the potential for adjacent suburban development are some of the issues requiring constant vigilance. Park personnel are also mindful of visitor safety issues such as the potential for severe summer weather—heat and humidity, hailstorms, and tornadoes—the presence of biting insects, poisonous snakes, caves, and the unhealthful water quality of Wilson's Creek.
Existing Conditions Documentation by Landscape Characteristic

Spatial Organization

Wilson's Creek NB is characterized by rolling terrain, composed of upland plateaus, level terraces, and floodplains and stream corridors edged by more steeply-sloped hillsides. The channel etched by **Wilson's Creek** [*Photo 1*] divides the site through its center along a north/south axis. This linear corridor is predominantly wooded, as is **Skegg's Branch** [*Photo 2*], which joins Wilson's Creek from the west, approximately mid-way through the park. Numerous other intermittent stream corridors and drainageways are scattered throughout the site; these divide, in a dendritic pattern, the upland plateaus and terraces located primarily in the northwestern, northeastern, and southeastern corners of the park. The named intermittent drainageways include **Manley Branch** in the east-central portion of the park, **Short's Branch** along the Tour Road in the northern portion of the park, and **McElhaney Branch**, which joins Wilson's Creek near its north-central boundary. The most prominent plateau is **Bloody Hill** [*Photo 3*] in the northwestern portion of the park. The Ray House occupies the northeastern plateau. The southeastern plateau is predominantly wooded.

The remainder of the park is maintained in broad expanses of open field, variously edged by hedgerows, road corridors, and woody growth where agricultural activities have been abandoned. Evidence of section lines remains apparent in the configuration of roads, hedgerows, fencelines, and field patterns. Other systems, such as the park Tour Road and the former Missouri-Pacific Railroad line cut across the orthogonal pattern of township, range, and section lines in a curvilinear fashion.

Responses to Natural Systems and Features

The natural features associated with the Wilson's Creek landscape include perennial stream corridors—Wilson's Creek [*Photo 1*], Skegg's Branch [*Photo 2*], McElhaney Spring Branch, Short's Branch, and Manley Branch—and six active springs. The springs are located near the Ray House, along Short's Branch, within a cave east of the Lyon Marker, within a cave near the southern park boundary [*Photo 4*], west of the Tour Road near the West Battlefield Overlook [*Photo 5*], and east of the KAMO overhead transmission line. There were likely additional springs on the site that have ceased to flow during the twentieth century. Other natural features include two caves, one located below the Lyon Marker, and the other along the park's southern boundary; and prominent upland landforms such as Bloody Hill [*Photo 3*].

Evidence of past cultural responses to natural features on this site include the siting of farmsteads, such as the Ray House, on prominent knolls with commanding views and access to fresh water sources, and the establishment of spring houses atop perennial springs. In addition, there is evidence of quarrying activities in areas of prominent limestone deposits [*Photo 6*]. Remnants of a mill, dam, and millrace along the banks of Wilson's Creek indicate its suitability to generate hydraulic power for milling. Road crossings of waterways have included fords at creek shallows, and twentieth-century bridge construction such as the County Road bridge across Wilson's Creek.

More contemporary landscape features that address cultural use of or adaptations to natural features include the establishment of bridges and culverts [*Photo 7*] to facilitate creek and drainageway crossings, the establishment of scenic overlooks atop prominent open knolls for battlefield interpretation, and the siting of the Visitor Center and maintenance areas out of the viewshed of

interpreted portions of the park. Many of these features are inventoried and described in more detail in later parts of this section.

Inventory of Natural Systems and Features

- Wilson's Creek
- Skegg's Branch (also known as Schuyler Branch)
- McElhaney Spring Branch or Creek
- Manley Branch
- Short's Branch
- six unnamed springs observed during field investigations:
 - spring at Ray House
 - spring at Short springbox
 - spring west of Tour Road near West Battlefield Overlook
 - spring east of KAMO overhead transmission line
 - spring within cave east of Lyon Marker
- spring within cave near southern park boundary
- two caves observed during field investigations:
- cave along southern park boundary
- cave overlooking Wilson's Creek below Lyon Marker
- Bloody Hill

Natural Systems and Features



Photo 1. Wilson's Creek.



Photo 2. Skegg's Branch is an intermittent stream corridor.

Natural Systems and Features



Photo 3. View towards Bloody Hill.



Photo 4. A cave and associated spring near the park's southern boundary.

Natural Systems and Features



Photo 5. A spring, with associated stone edging, located to the west of the Tour Road near the West Battlefield Overlook.

Responses to Natural Systems and Features



Photo 6. Local limestone has been utilized since early settlement as a construction material. A former quarry site is evident along the Wire Road north of Wilson's Creek. The former Town of Wilson Creek was also located in this vicinity.



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Photo 7. One of the responses to natural features evident at the park is the use of culverts and swales to carry stormwater away from the Tour Road.

Management Land Uses

Within the confines of park boundaries, there is a variety of land uses, some surviving from historic periods, and others associated with management of the site as a historical park.

Land uses surviving from the pre-park period include:

- **cemetery**—two family cemeteries within park boundaries originated during the nineteenth century. These are the Manley [*Photo* 8] and Edgar family cemeteries.
- **utility**—two utility lines traverse the park and are administered by entities other than the NPS. These include an overhead electric transmission line [*Photo 9*] and a former gas pipeline that currently carries a fiber-optic communication line. Also, a former residential well exists along the southern park boundary. There may be others that were not observed by the CLR team during field investigations.

Land uses associated with the site as a historical park include:

- **recreation**—horseback riding and walking/hiking are permitted on the Wire Road and other authorized trails. A picnic area with tables and benches exists near the Visitor Center.
- **utility**—there are three wells located within the park that provide water for various uses, including a 550-foot-deep structure located at the maintenance facility that treats, stores, and pressurizes water in an underground concrete facility; a well at the McElhaney farm, and a well at the Ray House. There is also a former wastewater treatment facility located to the east of the Visitor Center complex, which was replaced by a septic system.
- administration—the offices of NPS park personnel are housed in the Visitor Center, the maintenance area, and the McElhaney House (Building No. 6).
- **maintenance**—maintenance activities and related storage facilities are located in the maintenance area. Storage and shop activities are housed within the former wastewater treatment facility.
- **interpretation**—park interpretive facilities include displays at the Visitor Center and the restored Ray House structure, the 4.85 mile Tour Road that includes pull-offs with wayside exhibits, and interpretive trails that provide pedestrian connections to various historic landscape features associated with the Civil War battle.
- **visitor services**—the primary visitor services available at the park include rest rooms, drinking fountains, and staff assistance, all of which are housed at the Visitor Center.
- **agriculture**—portions of the park are maintained in open fields through a historic lease program. Local farmers periodically harvest hay from these fields.
- **scientific study**—park personnel are currently conducting experiments and monitoring programs in areas undergoing prairie restoration.
- open space—other areas of the park not currently programmed for specific uses.

Management Land Uses



Photo 8. Two family cemeteries exist within park boundaries. This, the Manley family cemetery, occurs along the park's eastern boundary.



Photo 9. An overhead transmission line, and its associated easement corridor, cut across the northern half of the park.

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Circulation Patterns and Features

Wilson's Creek NB includes a variety of circulation systems and feature types marking various phases of the site's history and land use associations. Circulation features associated with the site include paved and unpaved roads, highways, trails, traces, paths, walks, parking areas, roadside pull-offs, overlooks, stairs, steps, and ramps. The materials that comprise these systems range from asphalt, gravel, and concrete, to stone, earth, and wood. Structures and small-scale features associated with the various circulation systems described in the following paragraphs are addressed in subsequent sections of this chapter. They include bollards, wheelstops, hitching posts, fencing, lighting, culverts, bridges, and gates.

Public roadways that traverse or edge the park include Highway ZZ, Farm Roads 182, 111, and 194, and an unnamed, unimproved county road. Missouri **Highway ZZ** [*Photo 10*] is a state highway that crosses through the northwestern corner of the park, and subsequently forms part of its western boundary. It is a two-lane asphalt road that is wholly maintained by the state. Leading east and west from Highway ZZ is **Farm Road 182**, also known as Elm Street [*Photo 11*]. This asphalt roadway was re-aligned in the 1980s for safety and to facilitate increased visitor access at the time the Visitor Center was built. To the west of Highway ZZ, this road leads to an access road for the maintenance area. To the east of Highway ZZ, the roadway traverses a portion of the park before forming its northern boundary. For the most part, this road follows a straight and cardinal alignment. As it crosses Wilson's Creek, however, it includes a gently curved section to accommodate the grades necessary for a bridge. The road is maintained partly by the county and partly by the park.

An unimproved road, with a grass and hard-packed earth surface, leads south from Farm Road 182/Elm Street, providing access to the Edgar family cemetery. This road is gated. Further to the east, the intersection of Farm Roads 182 and 111 forms the park's northeastern corner. **Farm Road 111** edges the park to its east. This chip and seal roadway travels due south, and ends in a small parking area/turn-around located at the edge of the park. Formerly, the road traversed a small portion of the park, before terminating in an intersection with Farm Road 194.

Farm Road 194 [*Photo 12*] at one time traversed the central portion of the park from east to west, and was part of the original NPS visitor interpretive tour. Since construction of the park's Tour Road, the NPS has gated Farm Road 194 at the park's eastern boundary, and it is no longer open to the public. The margin of Farm Road 194 near the park boundary is used for **horse trailer parking**.

Wilson Road forms a portion of the park's southern boundary. The western end is paved with asphalt. After crossing a concrete **ford** at Wilson's Creek, the road becomes a gravel, backcountry route.

The **Tour Road** [*Photo 13*] is the park's primary circulation feature. This asphalt road corridor forms a large undulating loop through the heart of the park, and provides connections to the majority of the park's interpreted landscape features. The loop begins and ends to the southeast of the Visitor Center parking area. Access is limited through a card-controlled gate. The Tour Road includes three bridge crossings and various culvert structures at stream, creek, and intermittent drainage corridor crossings. Drainage swales also edge the road in various locations. Over steeper terrain, these swales are paved with concrete. Otherwise, the swales are grass-lined ditches. A portion of the road corridor was built on the existing **Missouri-Pacific Railroad grade** on the eastern side of the park [*Photo 14*]. The railroad grade, composed of earth and stone, continues to the northeast and southeast of the Tour Road. All associated railroad features, including track,

bridges, and culverts were removed after the line was abandoned in the 1970s. There are eight **pull-offs** located to either side of the Tour Road corridor that provide parking spaces and access to interpretive wayside exhibits and/or pedestrian trails leading to interpreted features. A ninth pull-off provides **parking space for horse trailers**. The interpretive pull-offs provide access to the **Gibson House and Mill site**, the **Ray House and springhouse**, the **East Battlefield Overlook** and the **Price's Headquarters/Pulaski Battery Trail** [*Photo 15*], **Sigel's second position wayside**, **Sigel's final position**/Sharp House wayside information [*Photo 16*], **Guibor's battery** [*Photo 17*], the **Bloody Hill** interpretive trail, and the **West Battlefield Overlook**.

The **Wire Road** traverses the park between its northeastern and southwestern corners [*Photos 18*, 24]. The road travels approximately 1.8 miles through the park, and is between fifteen and twenty feet wide. Some portions are currently surfaced with brown gravel. Other portions exist as a grassy or hard-packed earth depression. Sections of the Wire Road have been obscured or obliterated by later additions to the landscape, such as the Missouri-Pacific Railroad line, and the County and Tour Roads. Horseback riding is permitted over sections of the Wire Road.

The **Visitor Center** area includes an **access road** leading south from Farm Road 182, an **arrival area** with concrete **sidewalks** and site furnishings [*Photo 19*], a large **parking area** that can accommodate seventy-seven cars and five buses and recreational vehicles [*Photo 20*], concrete sidewalks, concrete and flagstone **pedestrian walks and plazas** around the building, a gravel **path** providing access to a picnic area, and a wood chip **Nature Trail** that is two-thirds of a mile in length and loops through the partially wooded area to the southeast of the Visitor Center.

The **McElhaney Farm** complex includes two circulation features—a hard-packed earth **access drive** and a **concrete sidewalk**. The sidewalk is composed of poured concrete sections. It connects the house with the root cellar, smokehouse, and cistern. The sidewalk likely dates from between 1911 and 1940. The drive leads directly to the farmhouse from Farm Road 194.

The park also includes approximately seven miles of pedestrian and equestrian trail systems. The majority of these are associated with interpretation of battlefield landscape resources. These are generally narrow, hard-packed earth routes that lead to off-road features from parking pull-offs. The trails include the two-thirds-mile **Bloody Hill Interpretive Loop Trail** [Photos 21, 22]; a short, 100-yard trail leading to the West Battlefield Overlook Trail; the three-quarter-mile Gibson's Mill Trail in the northern portion of the park [*Photo 23*]; and trails leading from a parking area east to the Ray House [*Photo 24*] along a long run of concrete stairs, and west to the springhouse in the northeastern corner of the park. The Manley Uplands Trail [Photo 25] follows the eastern boundary of the park over the course of a former fire road. Trails lead east toward the **East Battlefield Overlook**, which includes a set of wooden steps, and west to the onequarter-mile trail interpreting the site of the **Pulaski battery** and **Price's headquarters** at the Edwards Cabin. Trails that connect many of the interpreted sites include a trail between the Gibson's Mill site and Wire Road, and from the Edwards Cabin to Bloody Hill. There is also a **farm road** leading through the Ray cornfield that is accessible to horseback riders [*Photo* 26]. Trails that accommodate authorized equestrian use include portions of the Wire Road, the trail that hugs the southwestern and southern park boundary, connecting to the Manley Uplands Trail or a spur trail leading to the Tour Road and horse trailer parking pull-off, and the Ray Cornfield Trail that encompasses a farm lane that crosses the Ray cornfield between the Wire Road and the Tour Road near the Edgar family cemetery.

Inventory of Circulation Patterns and Features

- Wire or Telegraph Road (abandoned) (LCS #05075)
- Highway ZZ
- Farm Road 182/Elm Street
- Edgar family cemetery access road
- Farm Road 111
- Farm Road 194
- Wilson Road and ford along southern park boundary
- Abandoned Missouri Pacific Railroad rail line grade
- Tour Road, and associated parking pull-offs (9):

Gibson's Mill Trail pull-off

Ray House pull-off

Price's Headquarters/Pulaski's Battery/East Battlefield Overlook pull-off

Sigel's Second Position pull-off

Sigel's Final Position pull-off

Guibor's Battery pull-off

Bloody Hill pull-off

West Battlefield Overlook pull-off

Horse trailer parking pull-off

- Horse trailer parking area
- Visitor Center parking area
- Visitor Center sidewalks
- Nature Trail at Visitor Center
- McElhaney access drive
- McElhaney sidewalk (LCS #70059)

- Bloody Hill Interpretive Trail
- Trail between Bloody Hill and Edwards Cabin
- Gibson's Mill Trail
- Pulaski Battery Trail
- Trail between Gibson's Mill site and Wire Road
- West Battlefield Overlook Trail
- East Battlefield Overlook Trail
- Trails to access Ray House, Ray springhouse
- Equestrian trail

Circulation Patterns and Features



Photo 10. Highway ZZ near the entrance to Wilson's Creek National Battlefield.



Photo 11. Farm Road 182/Elm Street edges the park's northern boundary. The gates limit access to the park near the Edgar family cemetery.

Circulation Patterns and Features



Photo 12. Farm Road 194, within park boundaries. The open grass and gravel area to the right is used for horse trailer parking.



0002/999/2000

Photo 13. The National Park Service opened the Tour Road in 1986 to enhance the visitor experience within the park and to control vandalism.

Circulation Patterns and Features



Photo 14. A portion of the Tour Road (as seen here) was built on the former bed of the Missouri-Pacific Railroad line.



Photo 15. The East Battlefield Overlook pull-off along the Tour Road is shown in the foreground. The wooden stairs in the background lead to the overlook trail.

Circulation Patterns and Features



Photo 16. The pull-off at the Sigel's Final Position interpretive node includes a large parking area which can accommodate cars and buses.



Photo 17. The Guibor's Battery pull-off along the Tour Road includes a footbridge and trail leading to a replica cannon and interpretive wayside.

Circulation Patterns and Features



Photo 18. The National Park Service has rehabilitated the trace of the former Wire Road. The rehabilitated route is surfaced with gravel, and signage has been added to support its current use as a pedestrian interpretive route and a horseback riding trail.



Photo 19. The Visitor Center complex includes a parking area, generous concrete sidewalks, bike racks, ornamental plantings, and various site furnishings.

Circulation Patterns and Features



Photo 20. The Visitor Center parking area is large enough to accommodate many cars, buses, and RVs.



Photo 21. There are numerous pedestrian interpretive trails within the park, including this trail along Bloody Hill that provides access to the Lyon Marker and the sinkhole where casualties of the Battle of Wilson's Creek were initially buried.

Circulation Patterns and Features



Photo 22. The Bloody Hill Trail leads past the Lyon Marker.



Photo 23. The Gibson's Mill Trail is a loop route that provides access to interpreted archeological sites. It also provides connections to other trails leading to the Wire Road and the Edwards Cabin site.

IMA 1999/2000

Circulation Patterns and Features



Photo 24. The Ray House was constructed in 1852 along the area's primary road at the time—the Wire Road. A trace of this road, evident to the right, survives today. Visitors approach the house along a contemporary asphalt trail (left).



Photo 25. The Manley Uplands Trail follows the alignment of an old fire road. The trailhead near the McElhaney farm is shown here.

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Circulation Patterns and Features



Photo 26. A farm road traverses the fields located between Gibson's Mill and the Ray House. This road is part of a system of trails accessible to horseback riders.

Cultural and Natural Vegetation

See figure 85, plant communities; figure 86, threatened and endangered plant species.

Park vegetation is approximately 65-70 percent wooded and 30-35 percent open in character. The predominant arboreal species include oaks (*Quercus* spp.), hickory (*Carya* spp.), Eastern redcedar (*Juniperus virginiana*), honey locust (*Gleditsia triacanthos*), Osage orange (*Maclura pomifera*), black walnut (*Juglans nigra*), ash (*Fraxinus* spp.), American elm (*Ulmus americana*), hawthorn (*Crataegus* spp.), and common persimmon (*Diospyros virginiana*). Prevalent understory shrubs include brambles (*Rubus spp.*) and grape (*Vitis spp.*). Native grasses represented include big bluestem (*Andropogon gerardii*), little bluestem (*Schizachrium scoparium*), Indian grass (*Sorghastrum nutans*) and switchgrass (*Panicum virgatum*). There is also a large non-native plant species presence.

The current status of the vegetation within Wilson's Creek NB is the result of years of intensive agriculture, livestock grazing, fire suppression, park development/site improvement activities, and horticulture. The combination of these factors over the last 170 years or so has resulted in a landscape that barely resembles the one that existed at the time of settlement or even the time of the battle. Chapter 2 discusses the landscape as it appeared during the pre-settlement period, as determined by analyzing the GLO survey notes along with the remnant native flora. There are few plant assemblages that resemble, to any fundamental degree, historic vegetative communities.

Generally, the vegetation that prevails in the landscape today was not present at the time of settlement. The majority of the land surface today, wooded or otherwise, is dominated by floristic elements that have been transported into the system from Europe or Asia. The current lack of native flowers reflects the contemporary absence of suitable food, pollen, and reproductive substrates for many native insects, spiders, and their attendant predators and fungi.

In Chapter 2, seven general plant communities or associations were identified for the site, which were designated as: (1) springs, (2) riverbanks, low terraces, and gravel bars, (3) high terraces, (4) mesophytic savannas, (5) cherty savannas, (6) glades, and (7) cultural areas. It is important to note that there are no undegraded remnants of these seven plant communities, as all have undergone post-settlement change. However, contemporary species lists were compiled in the spring of 2000 for these systems, and others, as possible. These lists are included in Appendix D. The seven plant categories described in Chapter 2 are also used to describe existing conditions. Perhaps the best way to articulate the changes that have occurred over recent decades and the context for existing conditions is to describe the condition of these seven systems and other contemporary cultural landscapes within the park as they exist today. The conditions of the systems are described below.

Springs: The flora observed in association with spring communities in March 2000 included predominantly forbs, grasses, and sedges, with one shrub species—American elder or elderberry (*Sambucus canadensis*). Species characteristic of springs today include various sedges (*Carex annectens, C. frankii, C. granularis, C. stipata,* and *C. vulpinoidea*), a few grasses, such as fowl manna grass (*Glyceria striata*), and a few herbaceous species: swamp milkweed (*Asclepias incarnata*), false dragonhead (*Physostegia virginiana*), and cup-plant (*Silphium perfoliatum*). No non-native flora were observed.

The springs, once quite commonly occurring and characteristic of the Wilson's Creek drainage, have all nearly dried up to the point where many of the recorded springs are either gone or mere trickles. The causes include, among others, current vegetative conditions. The only sources of water

for the springs are precipitation or condensation that percolates into and below the rhizosphere of the surrounding uplands. The progressive, chronic loss of vegetation with fibrous root systems capable of slowing, capturing, and helping to draw this water into the soil, and the resulting loss of soil organic matter, has converted much upland acreage from infiltration systems to runoff systems [*Photo 5*].

Riverbanks, low terraces, and bars: The flora observed in association with the riverbanks, low terraces, and bars communities is characterized by canopy trees such as silver maple (*Acer saccharinum*), common hackberry (*Celtis occidentalis*) sycamore (*Platanus occidentalis*), and American elm (*Ulmus americana*). Shrubs are quite common: elderberry, corralberry (*Symphoricarpos orbiculatus*), and the woody vines, bristly cat brier (*Smilax tamnoides v. hispida*), summer grape (*Vitis aestivalis*), and frost grape (*Vitis vulpina*). Virginia wild rye (*Elymus virginicus*) forms large swards through these communities, and are interspersed by various sedges (*Carex aggregata, C. conjuncta, C. davisii*, and *C. vulpinoidea*). A third of the plants are herbaceous wildflowers, most typically: wild chervil (*Chaerophyllum procumbens*), white avens (*Geum canadense*), wild goldenglow (*Rudbeckia laciniata*), black snakeroot (*Sanicula gregaria*), and corn salad (*Valerianella radiata*). There were also various non-native species, some of which can represent management problems, such as Japanese honeysuckle (*Lonicera japonica*) and multiflora rose (*Rosa multiflora*). Some other weeds are relatively innocuous: field garlic (*Allium vineale*), common chickweed (*Stellaria media*), and ivy-leaved speedwell (*Veronica hederaefolia*).

Today's riverbanks and low terraces differ from the pre-settlement forms. The catastrophic changes in watershed hydrology along Wilson's Creek have either buried or scoured away the landforms that comprised the low colluvial and alluvial stream margins. The majority of associated vegetation now consists of a few common species of Eurasian origin. Virginia wild rye (*Elymus virginicus*), a native grass, forms near monocultures in some areas. Here and there a few older trees persist [*Photos 28, 31*]. Many of these trees are being shade-pruned by thickets of hackberry and elm, or their root systems are being undermined by the surges of floodwater that scour the riverbanks during rains.

High Terraces: The higher terraces are characterized by forest trees such as such as box elder (*Acer negundo*), black hickory (*Carya texana*), green ash (*Fraxinus pennsylvanica*), black walnut, bur oak (*Quercus macrocarpa*), and American elm, with significant understories of papaw (*Asimina triloba*), redbud (*Cercis canadensis*), and wafer ash (*Ptelea trifoliata*); one of the more common shrubs is corralberry (*Symphoricarpos orbiculatus*). Grasses dominate the ground plain: riverbank wild rye (*Elymus riparius*), downy wild rye (*Elymus villosus*), Virginia wild rye (*Elymus virginicus*), and bottlebrush grass (*Hystrix patula*), along with numerous forbs such as wild chervil (*Chaerophyllum procumbens*), toothwort (*Dentaria laciniata*), shining bedstraw (*Galium concinnum*), garden phlox (*Phlox paniculata*), black snakeroot, and common blue violet (*Viola sororia*). Introduced species that can represent management problems in certain areas include the small tree, Osage orange, and the shrub, multiflora rose. Casual weeds that dissipate with proper management include yellow rocket (*Barbarea vulgaris*), poison hemlock (*Conium maculatum*), purple henbit (*Lamium purpureum*), and common chickweed (*Stellaria media*).

The higher terraces probably had their origin when Wilson's Creek included a larger watershed, and/or before Wilson's Creek and its Holocene-aged bottoms deepened, leaving the terraces high and dry due to plateau uplift and or stream down-cutting. As with the riverbank systems, vegetation on the terraces is largely Eurasian in composition, with dense thickets of weedy trees. The once-rich ecotone is now obscured by species introduced during and after the nineteenth century [*Photo 29*].

Mesic and Cherty Savannas: The contemporary manifestations of savanna at Wilson's Creek NB are characterized by older trees of white oak (*Quercus alba*), chinkapin oak (*Quercus prinoides acuminata*), post oak (*Quercus stellata*), and other oaks, with younger cohorts of sugar maple (*Acer saccharun*), bitternut hickory (*Carya cordiformis*), common hackberry, red elm (*Ulmus rubra*), and other more mesophytic species. Although they represent only about 5 percent of the flora, sedges are the most significant groundplane species, along with the grasses, ear-leaved brome (*Bromus purgans*) and downy wild rye (*Elymus villosus*) [*Photo 30*]. Importantly, we noted that numerous conservative herbaceous species also remain: Wood anemone (*Anemone quinquefolia*), butterfly pea (*Clitoria mariana*), rattlesnake master (*Eryngium yuccifolium*), pale gentian (*Gentiana flavida*), white prairie clover (*Petalostemum candidum*), Seneca snakeroot (*Polygala senega*), hairy skullcap (*Scutellaria elliptica*), royal catchfly (*Silene regia*), yellow pimpernel (*Taenidia integerrima*), early meadow rue (*Thalictrum dioicum*), buffalo clover (*Trifolium reflexum*) and Culver's root (*Veronicastrum virginicum*), all of which bespeak a much more open-grown savanna. Generally, these savannas are not overly infested by difficult-to-control weeds, although some areas are overpopulated by Eastern redcedar and corralberry.

Both the mesophytic and cherty savannas have all but disappeared due to shading, fire suppression, or agriculture. Degraded remnants of the mesophytic savannas occur on the northern exposures of the bluffs along Skegg's Branch and to some extent along the northeastern and eastern exposures along Wilson's Creek south of the KAMO power line crossing. There is a relatively high quality remnant of cherty savanna along the west-facing bluffs of Wilson's Creek, above the old railroad bed, in the vicinity of and south of the Manley family cemetery. In both systems, the degradation is visible in the proliferation of cohorts of young, even-aged trees, which are growing at densities far higher than those recorded historically anywhere on the Springfield Plateau. The density of the canopy filters approximately 95 percent of the available sunlight, leaving 5 percent to support plant growth. Although we do not have data on Wilson's Creek, based upon information available for similar systems, the light levels at which these systems evolved was likely closer to 15 or 20 percent of available light. The effects of phreatophytic (plants with deep root systems drawing from the water table) dewatering of the rhizosphere due to such densities is unknown but may be significant. In any event, the loss of graminoid ground cover species and their fibrous root systems has led to diminution of soil organic matter and, consequently, to a shift from infiltration to run-off and erosion. With it have been lost the associated bulbs and diaspores of the savanna forbs, and their native insect pollinators. These erosional areas are apparent throughout in the bottoms of dissections that have developed relatively recently from less-defined swales forming the concave of the gentle arc of adjacent convex nose slopes. Where off-site waters surge through the systems, the effect is even greater.

Glades: Although scarcely resembling their former extent or character, the glades still retain a number of conservative herbaceous species: slender sandwort (*Arenaria patula*), green milkweed (*Asclepias viridiflora*), stiff aster (*Aster ptarmicoides*), downy gentian (*Gentiana puberula*), slender-leaved bladderpod (*Lesquerella filiformis*), evening primrose (*Oenothera triloba*), hispid wild quinine (*Parthenium hispidum*), and glade greenthread (*Thelesperma trifidum*). Asian annual grasses such as Japanese chess (*Bromus japonicus*) are everywhere apparent and will represent a persistent weed in these systems indefinitely, even with proper management.

Once nearly treeless, the glades are now characterized by the unfettered proliferation of Eastern red cedar (*Juniperus virginiana*). This plant shades the native species around it to the point where they can no longer survive, and cools the substrate below, changing the mass-heat relationships of the exposed bedrock to which native glade species are adapted; it also deposits chronic levels of terpene-containing litter. Generally, harsh habitat alteration manifested by the cedars has created habitats more suited to Eurasian species, such as Japanese chess and Japanese honeysuckle. Glade

species persist in much diminished and diffusely distributed populations. Many of the Eurasian flowers that now dominate the open landscape are substrates for the European honey bees (*Apis mellifera*), which have hives in old chinkapin oaks on Bloody Hill and elsewhere [*Photo 31*]. However, the native honey bee was not observed.

Old Fields and Pastures: This plant community was virtually absent prior to European-American settlement, aside from the small crop fields periodically planted by indigenous inhabitants during the prehistoric period. Their agriculture, however, did not deplete the soil organic matter, denude vast tracts, create runoff, or degrade the landscape the way historic period agriculture has. Contemporary old fields are dominated by a few Eurasian weeds such as redtop (*Agrostis alba*), common burdock (*Arctium minus*), thyme-leaved sandwort (*Arenaria serpyllifolia*), hairy brome (*Bromus commutatus*), Japanese chess (*Bromus japonicus*), cheat grass (*Bromus tectorum*), shepherd's purse (*Capsella bursa-pastoris*), common chickweed, wild carrot (*Daucus carota*), hairy crabgrass (*Digitaria sanguinalis*), prickly lettuce (*Lactuca serriola*), field cress (*Lepidium campestre*), black medic (*Medicago lupulina*), Kentucky bluegrass (*Poa pratensis*), curly dock (*Rumex crispus*), dandelion (*Taraxacum officinale*), and white clover (*Trifolium repens*). Old fields at the park are also maintained as mown fescue fields, as interpreted crop fields, and in many other areas have been released to succession and are now characterized by dense thickets of woody volunteers, which eventually cast enough shade to cause surface erosional processes [*Photo 32*].

Restoration Areas: About 35 years ago, early attempts at landscape-scale restoration began at Wilson's Creek NB, and proceeded relatively steadily until the mid-1990s. The species selection has been prevailingly those that are wind-pollinated warm-season grasses, such as little bluestem (*Schizachrium scoparium*), big bluestem (*Andropogon gerardii*), and Indian grass (*Sorghastrum nutans*). A few forbs have been planted as well. Most of these restoration attempts are patterned along the lines of the Conservation Reserve Programs in that they are dominated by grasses with few or no insect pollinated species in the "mixes" [*Photo 33*]. In some areas, sericea lespedeza (*Lespedeza cuneata*) has become a difficult invasive species issue in that, like native species, it responds well to fire.

In those areas where prescribed fire has been relatively frequent, the tall warm-season grasses predominate; a few of the seeded perennials are also common, including wild bergamot (*Monarda fistulosa*) and black-eyed Susan (*Rudbeckia hirta*). In restoration areas where fire has been infrequent, the plant community is better described as old field.

Cultural Areas: One of the primary planted areas is the Visitor Center complex. As part of the 1982 Visitor Center site development, ornamental plantings were installed around the parking area, along the pedestrian walks leading into the building, and around the building's foundation. The species utilized in these plantings include, at the parking area—Shumard oak (Quercus Shumardi), shingle oak (Quercus imbricaria), Skyline honeylocust (Gleditsia triacanthos inermis "Skyline"), and ash trees—and in the planting beds that edge the walks—dwarf Pfitzer juniper (Juniperus chinensis Pfitzeriana compacta), rock cotoneaster (Cotoneaster horizontalis), Arnold's dwarf forsythia (Forsythia x "Arnold's dwarf"), dwarf burning bush (Euonymus alatus compacta), arrow-wood (Viburnum dentatum), aromatic sumac (Rhus aromatica), Clavey's honeysuckle (Lonicera x "Clavey's"), Andorra juniper (Juniperus horizontalis plumosa), and additional ash, Skyline honey locust, and Washington hawthorn (*Crataegus phaenopyrum*) trees. In foundation plantings around the building entrance are plants such as fragrant sumac, wintercreeper euonymus (Euonymus fortunei), blue carpet juniper (Juniperus horizontalis 'Blue *Carpet'*), dwarf Pfitzer juniper, spice bush (*Lindera benzoin*), and smooth sumac (*Rhus glabra*). A tree planting mass edges the building to its rear. The tree species comprising this planting include maples, Washington hawthorns, and Skyline honey locusts. Generally, the area around the parking

area and the Visitor Center is surrounded by open grass lawn composed of a mix of native grasses and Kentucky blue grass and tall fescue sod that are kept mown.

Screen and ornamental plantings were added along the Tour Road in 1985. These plantings are generally comprised of tightly planted clusters of native trees and shrubs, sited at key locations along the road such as parking pull-offs and trailheads. The tree species include sugar maple, paw paw, pecan (*Carya illinoensis*), sugar hackberry (*Celtis laevigata*), common hackberry, redbud, cockspur hawthorn (*Crataegus crusgalli*), persimmon, white and green ash, black walnut, sycamore, black cherry (*Prunus serotina*), wild crabapple (*Malus coronaria*), white oak, shingle oak, black jack oak, red oak, post oak, black oak, sassafras (*Sassafras albidum*), and shadbush (*Amelanchier arborea*). The shrubs included gray dogwood (*Cornus racemosa*), hazelnut (*Corylus americana*), fragrant sumac, smooth sumac (*Rhus glabra*), gooseberry, pasture rose (*Rosa carolina*), highbush blackberry (*Rubus sp.*), black raspberry (*Rubus sp.*), common elderberry, coralberry, and black haw (*Viburnum prunifolium*).

In the vicinity of the Ray House are some larger deciduous trees that mark the house precinct. Many of these likely date from the late nineteenth through early twentieth centuries. They include a line of sugar maples in front of the house along the Wire Road trace, white poplars (*Populus alba*), and a post oak.

Another line of three sugar maples edges the parking pull-off at the former Sharp House site. [*Photo 34*] Although these trees were clearly planted, their association with a former circulation route or structure is not obvious. To the southwest of this parking area, the Wire Road continues in a southwesterly direction to the edge of the park. As the Wire Road reaches the top of a knoll, the road is edged by a dense planting of Osage orange [*Photo 35*], a former 'living fence' that may have been used to edge a pasture. The trees are likely around 100 years old.

Groves of Eastern redcedar trees are associated with both the Edgar and Manley family cemeteries. The age of these trees is difficult to determine, but they likely date from the early to mid-twentieth century.

Rare, Threatened, and Endangered Plant Species

Three species listed by the Federal Government as threatened or endangered have been observed at the park. These include bladderpod (*Lesquerella filiformis*), royal catchfly (*Silene regia*), and greenthread (*Thelesperma trifidum*).¹¹ The locations of these species are shown on *figure 86*. The park currently protects and monitors known populations of these species. The information included on the map is therefore sensitive.

Non-Native Invasive Plant Populations

There are also numerous plants known to exist within the park that are frequently referred to by natural areas managers as non-native invasive, exotic, or adventive species. These include: wild garlic, common wintercress (*Barbarea vulgaris*), chess or cheat grass (*Bromus inermis, Bromus tectorum*), bull thistle (*Cirsium vulgare*), poison hemlock, orchard grass (*Dactylis glomerata*), wild carrot, wintercreeper euonymus, tall fescue (*Festuca elatior*), red fescue (*Festuca rubra*), sericea lespedeza (*Lespedeza cuneata*), Japanese honeysuckle, buckhorn (*Plantago lanceolata*), Kentucky bluegrass, sulfur cinquefoil (*Potentilla recta*), multiflora rose, common chickweed, coralberry, common dandelion, hop-clover (*Trifolium hybridum*), common mullein (*Verbascum thapsus*), moth

¹¹ Also known as *Thelesperma filifolium*.

mullein (Verbascum blattaria), ivy-leaved speedwell (Veronica hederaefolia), and Johny Jump-up (Viola rafinesquii).

Inventory of Vegetation

- Springs plant community
- Riverbanks, low terraces, and bars plant community
- High terraces plant community
- Savannas plant community
- Glades plant community
- Old fields and pasture plant community
- Restoration areas plant community
- Cultural areas:
 - Living fence remnant

Ornamental plantings associated with Visitor Center

Screen plantings (associated with tour road views)

Ornamental plantings (associated with tour road parking pull-offs and trailheads)

Row of sugar maples at Ray House

Row of sugar maples near Sharp House site

Eastern redcedars at cemeteries

Cultural and Natural Vegetation



Photo 27. Vegetation within the Wilson's Creek floodplain includes native and non-native species. Most of the canopy trees currently growing within the floodplain are less than 50 years of age. This vegetation is representative of the riverbanks plant community.



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Photo 28. There are notable exceptions such as this large bur oak, located along the banks of Wilson's Creek to the south of the former Missouri-Pacific Railroad line. This tree likely existed at the time of the Civil War Battle of Wilson's Creek.

Cultural and Natural Vegetation



Photo 29. Vegetation within the high terraces plant community exhibits evidence of the high volume of flood waters that periodically flow through Wilson's Creek.



Photo 30. The park includes wooded areas dominated by widely-spaced larger deciduous canopy trees, little woody understory vegetation, and a groundcover layer of grasses and sedges. This vegetation composition is representative of the savannas plant community.

Cultural and Natural Vegetation



Photo 31. This very old chinkapin oak is located atop Bloody Hill. It is being shade-pruned by encroaching Eastern redcedars. It is part of the glade plant community.

Cultural and Natural Vegetation



Photo 32. This photograph represents the character of the old fields and pastures plant community.



Photo 33. Wilson's Creek National Battlefield includes many acres of prairie currently in various stages of restoration (foreground). These areas are representative of the restoration areas plant community. Most of the site's knolls remain wooded (background).

Cultural and Natural Vegetation



Photo 34. Sugar maples edge the parking pull-off associated with interpretation of Sigel's final position. A nineteenth-century farmstead, the Sharp House site, was once located nearby.



Photo 35. Vegetation surviving from past agricultural use of the site includes this live fence along the southwestern portion of the Wire Road. The fence, which may date to the nineteenth century, is comprised of a tightly planted row of Osage orange trees.

Buildings, Structures, and Structural Clusters

The oldest surviving structure in the park is the **Ray House** [*Photos 36 and 37*]. Located atop a knoll in the northeastern corner of the park along the Wire Road trace, the Ray House (LCS #01381) dates from 1852-53. The one-story, three-room house is L-shaped, thirty-one feet long on the north façade, fifty feet on the east face, eighteen feet on the west gable face, and sixteen feet on the south gable. A porch extends from the north façade overlooking the open fields below, with a view to the springhouse. The house includes a sandstone chimney and a fieldstone foundation. The gabled roof is pitched at 8/12 and sheathed with wood shingles. The narrow lap siding exists on all but the main façade where wider, flat siding is utilized. One-over-one windows are consistent on all façades. The location of the windows appears to have changed over time.

Associated with the Ray House is a limestone **springhouse** [*Photo 38*] (LCS #70052) located 150 yards to the west of the Tour Road. A dirt path leads to the springhouse; large wooden planks provide a means to cross the spring outflow that runs between the Ray House and the structure. The Ray family may have used the springhouse structure to store dairy products during hot months of the year. The structure, which is set into the side of a hill, is thirteen feet by twenty-five feet in size and has a barrel roof. The rounded barrel form is evident on the front façade. Limestone is laid horizontally on this façade, which includes an outer rim of limestone laid in a rowlock pattern along its face. A wooden lintel and frame encase the wood door on the front façade of the structure. The structure has been renovated over the past fifteen years. The limestone has been re-pointed. Currently some of the mortar is deteriorating, most notably on the roof of the structure.

Also associated with the Ray House is a small concrete **water storage structure** [*Photo 39*] located behind the dwelling that appears to be of twentieth-century origin. It is constructed of concrete block with asphalt shingles.

Another structure thought to survive from the Civil War period is the **Short springbox** located in the northern portion of the park along the Tour Road [*Photo 40*]. Associated with a former house site, this structure surrounds a spring that drains into Short's Branch to the west of Wilson's Creek. The structure is seven feet by twelve and one-half feet in size and is two feet tall, with sixteen-inch-wide walls, and includes foundation stones around the spring, which still flows.

The park's sole historic cluster of buildings is the McElhaney farm complex located to the south of the Ray House precinct along Farm Road 194. This residential cluster is comprised of a dwelling, barn, root cellar, smokehouse, and cistern. The complex is thought to have been constructed in 1911. The simplified Queen Anne-style **McElhaney House** (LCS #70054) is a one and one-half story wood frame structure with a cross-gabled hipped roof, front and rear porches and a painted fieldstone foundation [*Photo 41*]. The twenty-eight by forty-eight foot house is clad with horizontal lap siding, and the roof is covered with asphalt shingles. Architectural detailing includes such features as corner boards, cornice returns, turned posts and balusters on the porches, and one-overone windows. The house is also known as Building No. 6 and is currently used as park personnel office space. A propane tank is located across the access road leading between the side porch of the house and the root cellar, and a small **prefabricated storage shed** exists behind the house.

The large **barn** (LCS #70055) is a two and one-half story wood frame structure with a gabled roof and hay hood [*Photo 42*]. The thirty-two-by-fifty-foot structure has a concrete foundation and is clad with yellow pine board and batten siding at twelve inches on center. Door openings include a Dutch door, pedestrian doors, and sliding wood doors on the gabled ends and on the lower level of the north face, as well as smaller square openings along the south elevation. Recently, the roof was

stabilized with corrugated metal roofing. Water and insect infestation have caused extensive structural damage. A structural investigation has been completed and repair work is pending. A small **prefabricated storage structure** is located to one side of the barn.

The **root cellar** (LCS #70056) on the McElhaney farm property is located off the southeast corner of the house. While it may also date from 1911, the exact date of construction is not known [*Photo 43*]. The barrel-vaulted concrete stair enclosure protrudes from the bermed underground storage space. The storage space is accessed through the concrete enclosure by interior concrete stairs. The wooden entry door is very weathered and shows signs of deterioration due to exposure to natural elements. There are many cracks along the face of the structure.

The McElhaney **smokehouse** (LCS #70057) [*Photo 41*] was built by J.B. Stewart. The design of the structure is in keeping with that of the McElhaney House, located to the northeast. The simple gable structure is sheathed in lap siding terminated with cornerboards. The lap siding is painted pale yellow and the trim is painted white to match the house. The wood structure sits upon a concrete foundation and has a concrete floor. New sheathing with light gray asphalt shingles cover what appear to be the original roofing materials. Openings include two one-over-one windows, one each on the north and south faces. Unpainted metal grate material is affixed to the exterior window trim. Weathering has caused rust to build up on the material and stain streaks occur behind the panel on the window trim and down the siding. The wooden door is located on the east façade. It is composed of a single half-light over three wood panels.

The **cistern** (LCS #70058) located within the McElhaney farm complex is a small—four and onehalf by five and three-quarter feet—concrete pad which projects from the ground. A wooden panel covers the opening. The depth of the structure was not discernible from field investigations. Its date of construction is not currently known, but it likely dates from between 1911 and 1940.

Elsewhere within the park, there are **two stacked-stone walls** or fences that appear to be associated with former agricultural fields. The first, located across a swale or drainageway near the Tour Road in the southern section of the park, is composed of unmortarted stacked fieldstone [*Photo 44*]. The wall is two feet wide, fifty feet long, and five feet tall at its highest point, although the wall tapers to 1 foot in height as the ground rises to either side of the low point of the swale. This wall likely dates to the second half of the twentieth century. The second stone wall is located on the former Sharp property in an area that is currently wooded. The wall is three-and-three-quarter-feet high, 1 foot wide, and approximately two hundred and eighty feet long. It, too, is composed of unmortared stacked fieldstone. The wall is not continuous; there are various gaps along its length, some of which are related to swales and surface drainage. The western end of the wall is a rubble pile. This wall is thought to date from the latter part of the nineteenth century.

Other park walls include the **stone wall at the Ray House** [*Photo 45*], and a **remnant stone fence** along the field east of the West Battlefield Overlook. The stone wall at the Ray House edges the house precinct to the northwest. Approximately one and one-half feet in height, it is comprised of stacked blocks of stone, rough faced, but slightly squared along their edges. The visible portion of the wall is two courses high. The remnant stone fence along the field east of the West Battlefield Overlook is composed of stacked rubble currently ranging in height from a few inches to up to three feet. There is another section of **stone wall** associated with the footbridge crossing of a drainageway near the former quarry and kiln site along the Wire Road trace. This wall is composed of mortared rubble. It edges the bank of the swale at the bridge abutment, and is approximately three feet in height. The Tour Road includes three **concrete-span bridges** across McElhaney Branch and Wilson's Creek [*Photo 46*] which were built in conjunction with the road between 1984 and 1986. Within the park there is also an early twentieth century **bridge** (LCS #70062) across Wilson's Creek that dates to construction of the County Road in the 1920s. The bridge spans approximately fifty feet and was constructed near the original ford site of the Wire Road. The single span steel Howe truss is comprised of steel I-beam chords spaced approximately eight feet apart [*Photo 47*]. Double steel rods threaded into turnbuckles cross between the four vertical members of each truss. The bridge has wood decking running perpendicular to the trusses. Poured concrete abutments anchor the bridgeheads. The raised letters "Carnegie" can be read on the I-beams [*Photo 48*]. This is thought to be one of the oldest truss bridges in the county.

Built in 1982 to serve the many visitors to the battlefield, the Visitor Center is a flat roofed concrete and wood structure, which was designed to be as unobtrusive to the site as possible [*Photo* 49]. The cast-in-place concrete building is mostly bermed on its north and west faces. The majority of the south face of the structure is above grade, and is a blend of cast-in-place concrete and wood construction, with many wooden windows. The east facade emerges from the northern slope with a low horizontal face visible from the parking lot. This facade is composed of vertical one-by-six painted lap siding at the south end, hollow metal frames for entry doors and large windows along the center of the façade with cast-in-place concrete walls along the northern portion as it emerges from the slope. The one story building is approximately fifteen feet in height from finished floor to the top of the parapet. The triangular footprint measures one hundred twenty-one and one-half feet along each exposed face and approximately one hundred seventy-two feet along the diagonal where only the upper six to eight feet of the building extends above ground. The building accommodates the many visitors to the park with restrooms and information and interpretive services, as well as park staff offices. Nearby is an open-air **picnic shelter** [*Photo 50*]. This structure is composed of eight square wood posts joined by a gable arched truss system mortise and tenoned into the posts. They support a hipped roof sheathed with horizontal pine boards clad with asphalt shingles. The structure is set on a concrete pad. Picnic tables and benches are sited beneath and around the structure. The pad is edged by a stacked timber retaining wall, inset with a flight of timber steps. Wooden handrails edge the retaining wall and steps.

In close proximity to the Visitor Center complex is a small structure set into the side of a hill off the Tour Road. This former **wastewater treatment plant** [*Photo 51*] is a flat-roofed, cast-in-place structure that appears to be a twentieth-century construction. This building is bermed on three sides. The painted concrete structure has one large overhead service door and one person door located main façade. The design and location of this building make it rarely visible from the Tour Road. The facility is currently utilized for storage and as shop space.

The maintenance complex includes **two office buildings** and **three storage/shop** facilities as well as several small utility buildings used for storage. The construction dates of the buildings are not known, but appear to have been constructed in the later part of the twentieth century. The complex is located across the highway from the park and the buildings are set back from the road in a clearing. All of the structures are prefabricated buildings. **Building No. 1** is a prefabricated wood structure, with a simple rectangular plan and gable roof with asphalt shingle and lap vinyl siding. The building is conditioned space with office functions within. **Building No. 2** is constructed of four high bays, one of which is enclosed for additional office space [*Photo 52*]. The other three bays are open for vehicle and maintenance storage. The building has a simple rectangular plan, shed roof with metal roofing, and vertical metal siding. The office space is sheathed with horizontal wood lap siding. **Building No. 3** [*Photo 53*], and the other structures within the area are all prefabricated metal buildings with shallow gable roofs; they incorporate tall overhead doors to accommodate large

equipment and vehicles. Within the complex, there is also a **trailer** that houses the offices of the Prairie Cluster Long-Term Ecological Monitoring program [*Photo 54*].

Associated with the Missouri-Pacific Railroad rail line crossing of Manley's Branch is a large concrete **culvert** [*Photo 55*]. The culvert carries stormwater flow from this intermittent stream corridor through the raised earthen grade of the rail line. It was likely constructed as part of the rehabilitation of the rail line bed for use as the road bed for the park Tour Road.

The last structure located within the park is referred to as the **Edwards Cabin** [*Photo 56*]. Relocated to the site from a nearby privately-owned property, this cabin is thought to have been constructed in the mid-nineteenth century by the same man who owned a cabin within park boundaries at the time of the Civil War Battle of Wilson's Creek. The Edwards Cabin that was present at the time of the battle is no longer extant. The existing cabin, which currently occupies the site of the former Edwards Cabin, was donated to the park. It is a log structure currently encased in protective materials, including plywood and sheet metal, and remains on rollers, but is utilized as an interpretive aid.

Inventory of Buildings and Structures

- Ray House (LCS #01381)
- Ray springhouse (LCS #70052)
- Water storage structure at Ray House
- Short springbox (LCS #70053)
- McElhaney House/Building No. 6 (quarters) (LCS #70054)
- McElhaney smokehouse/Building No. 7 (LCS #70057)
- McElhaney barn/Building No. 8 (LCS #70055)
- McElhaney root cellar (LCS #70056)
- McElhaney cistern (LCS #70058)
- two small prefabricated storage structures at McElhaney Farm complex
- Stone wall #1, near Steele farmstead (LCS #70060)
- Stone wall #2, near Sharp farmstead (LCS #70061)
- Stone wall at Ray House
- Remnant stone fence near West Battlefield Overlook
- Stone retaining wall at bridge along trail between the Wire Road and the East Battlefield Overlook
- County Road bridge (LCS #70062?)
- Visitor Center
- Picnic shelter at Visitor Center
- Former water treatment plant
- Maintenance buildings (5), and Long-Term Prairie Monitoring program trailer
- Tour Road bridge at McElhaney's Branch (Bridge 1)
- Tour Road bridge at Wilson's Creek (north) (Bridge 2)
- Tour Road bridge at Wilson's Creek (south) (Bridge 3)
- Concrete culvert associated with rail bed crossing of Manley Branch
- Edwards Cabin

Buildings and Structures



Photo 36. The Ray House.



Photo 37. The rear façade of the Ray House.

BVH 2000



Photo 38. The Ray springhouse.



Photo 39. The water storage structure at the Ray House.



Photo 40. The Short springbox.



Photo 41. The McElhaney House and smokehouse.



Photo 42. The McElhaney barn.



Photo 43. The McElhaney root cellar.

Buildings and Structures



Photo 44. This short section of stone wall (stone wall #1) edges an open field adjacent to the Tour Road. Its origin and function have not been determined.



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Photo 45. A stone wall and worm fencing form part of the edge of the Ray House precinct.



Photo 46. Tour Road bridge #3.



Photo 47. The County Road bridge over Wilson's Creek.

Buildings and Structures



Photo 48. Detail of the County Road bridge.



Photo 49. The Visitor Center.

BVH 2000



Photo 50. The picnic shelter near the Visitor Center.



Photo 51. The former wastewater treatment plant.



Photo 52. Building No. 2 in the maintenance area.



Photo 53. Building No. 3, also located within the maintenance area.



Photo 54. This trailer at the maintenance complex houses the office of the Prairie Cluster Long-Term Ecological Monitoring Program.



Photo 55. This large concrete culvert conveys stormwater from Manley Branch beneath the former Missouri-Pacific Railroad grade. The volume and velocity of the flow is currently undercutting the structure.

Buildings and Structures



Photo 56. This nineteenth-century wooden cabin—referred to as Edwards Cabin—was moved in 1986 onto the site of a cabin that existed here at the time of the Battle of Wilson's Creek. The structure is currently under protective cover.

Small-scale Features

There are various small-scale features located within Wilson's Creek NB, most of which are of twentieth century origin and are associated with park development. These include fencing, gates, footbridges, replica cannon, site furnishings, utility features, and various park directional, regulatory, wayfinding, informational, and interpretive signs [*Photo 57*].

The small-scale features that pre-date park establishment include the granite monument that marks the site on Bloody Hill where General Lyon was killed, and the granite headstones located within the Manley and Edgar family cemeteries.

The **Lyon Marker** (LCS #05074) is a three foot six inch tall and two by one foot wide stone monument that was erected ca. 1928 [*Photo 58*]. The text inscribed on the monument reads as follows:

At or near this spot fell Brigadier General Nathaniel Lyon. Born Ashford, Conn. 1818. Graduated U.S. Military Academy, 1841. Commander of the Federal Forces in the Battle of Wilson Creek August 10 1861. The marker is erected by the University Club of Springfield, Mo. in honor of General Lyon and the hundreds of brave men, north and south, who, on this field, died for the right as God gave them to see the right. 1928

A winding path leads to the clearing where the monument sits. The monument rests upon a concrete base surrounded by a graveled surface. Nearby, there is a rock outcropping upon which has been **etched** text in block lettering [*Photo 59*]. The text is no longer legible due to weathering.

The **Manley family cemetery** includes fifty-seven grave sites, seven of which are marked with inscribed **headstones**. Generally, these markers date between 1872 and the early twentieth century. The markers are composed of carved stone, typically gray granite, and relatively small in size. There are three stones carved of a pink granite that date from the early twentieth century. Many of these are included on the NPS's List of Classified Structures (LCS). The cemetery is marked by Eastern redcedar trees.

The **Edgar family cemetery** [*Photo 60*] includes numerous **headstones**. These, too, are mostly small in size, and are composed of carved and inscribed granite. These headstones date from the mid-nineteenth through the early twentieth centuries, and constitute the oldest surviving small-scale features within park boundaries. Many are similarly included on the park LCS. The Edgar family cemetery is also marked by plantings of Eastern redcedars.

Many of the park's small-scale features are located near the Visitor Center. These include visitor amenities, functional features, and interpretive resources. Signage associated with the Visitor Center includes painted wood and metal regulatory, directional, and informational **signage**. Directional signs along trails are low wooden signs composed of posts with boards. The posts and boards are stained brown, and directional information and text is routed into the boards, and painted cream or white. There are also standard metal traffic signs, and metal signs directing vehicular traffic that are mounted on taller wooden posts. The park identity sign, located near the park entrance, is a painted metal sign. Site furnishings include two types of wood and metal frame **benches**—one with a back, and one backless—set on concrete or concrete and flagstone paving near the building entrance; wood-slat and metal frame **trash receptacles** located at various points along the walk system; three exposed aggregate concrete and steel **drinking fountains** set on flagstone paving [*Photo 61*]; a

metal **flagpole**; metal **bike racks**; pole-mounted **overhead** and **bollard-style lighting** that illuminates the parking area and walk leading to the Visitor Center; and a pedestal **telephone**. The Visitor Center is heated with gas stored in **propane tanks** to the side of the building. There are **gas pumps** located within the maintenance area.

Nearby, there is a picnic area that includes paths, level graveled picnic sites edged by wood timbers, and wood and steel **picnic tables** with benches [*Photo 62*].

A metal **gate** with a card-controlled access system marks the Tour Road entrance to the southeast of the Visitor Center complex. **Metal gates** also control access into the park from Farm Road 182 in three locations—at the maintenance area, the park entrance, and at the Edgar cemetery; from Farm Road 194; and in two locations from Highway ZZ. These gates are part of a system of **perimeter fencing** [*Photo 63*] that marks the park boundary. This fencing is composed of metal posts with barbless and barbed wire stretched between them. In some places, wooden posts replace the metal posts at every sixth vertical support interval.

Since the 1980s, the NPS has worked to restore the agricultural fence lines thought to have existed on the site at the time of the Civil War Battle of Wilson's Creek. These appear on period maps as wooden **worm fencing**, used at the time to enclose crop fields and restrict access to them by free-ranging livestock. Worm fencing has been constructed to replicate the fencelines associated with the historic Ray and Sharp properties in the northeastern corner and south-central portion of the park. Approximately five to seven miles of fencing have been constructed to date [*Photo 64*]. Worm fencing has also been constructed near the park entrance [*Photo 65*], at the Manley family cemetery, and in association with one of the interpretive waysides along the Tour Road [*Photo 66*].

Remnants of former fencelines are sparsely evident within the park. Woven wire fencing, typically used to enclose hogs, observed during field investigations along the Gibson's Mill Trail. A large stone that sits in the field near the parking pull-off for Sigel's final position bears evidence of a metal anchor and connected wire [*Photo 67*]. The stone may have been used in the past to affix field fencing.

Small-scale features associated with other visitor use areas include wooden **hitching rails** for horses [*Photo 68*], wooden **bollards** along parking pull-offs, wooden **footbridges** [*Photo 69*] along the Gibson's Mill Trail and the trail leading from the Wire Road to the East Battlefield Overlook parking pull-off, replica **cannon** marking the location of Backoff's Battery [*Photo 70*], at Bloody Hill, Pulaski's battery, and Guibor's battery, interpretive waysides along the trails and at parking pull-offs [*Photo 71*], and a wooden **stair landing** at the Edwards Cabin trailhead.

Small-scale features located within the maintenance area include **chain link fencing** around the shop complex, wood directional signs, propane tanks, wooden picnic tables with benches, and a metal **dumpster**.

Inventory of Small-scale Features

- Lyon Marker (LCS #05074)
- Etched stone on Bloody Hill
- Headstones located within the Edgar and Manley family cemeteries included on the List of Classified Structures:

Manley, Caleb & Rebecca headstone, Manley cemetery (LCS #05076)

Manley, Martha (?) headstone, Manley cemetery (LCS #70048)

Prunty, D.C. headstone, Manley cemetery (LCS #70049)

Jennings, William headstone, Manley cemetery (LCS #70050)

Howe family headstones, Manley cemetery (LCS #70051)

Edgar, Susanah & J.J. headstone, Edgar cemetery (LCS #05077)

Couch, Elisha P. headstone, Edgar cemetery (LCS #70041)

Couch, Sarah J. headstone, Edgar cemetery (LCS #70042)

Couch, Elisha M. headstone, Edgar cemetery (LCS #70043)

White, Elizra B. headstone, Edgar cemetery (LCS #70044)

Elmer, Hubert headstone, Edgar cemetery (LCS #70045)

Edgar, John & Centha headstone, Edgar cemetery (LCS #70046)

Edgar, Jannie L. headstone, Edgar cemetery (LCS #70047)

- Directional and informational signage, routed, painted wood, NPS (various, Gibson's Mill Trail
- Directional and informational signage, metal (horse crossing)
- Interpretive waysides, metal carriers, fiberglass panels (various at Ray House precinct, various along Gibson's Mill Trail, East Battlefield Overlook, Pulaski battery site, West Battlefield Overlook, Edwards Cabin, Guibor's battery, Sigel's second position, Sigel's final position, and Bloody Hill)
- Picnic tables and benches (at maintenance area, Visitor Center, McElhaney House)
- Trash receptacles (at Visitor Center)
- Drinking fountains (Visitor Center)
- Flagpole (at Visitor Center)
- Bike racks, metal (Visitor Center)
- Pole mounted overhead and bollard-type lighting (Visitor Center)
- Telephone pedestal (Visitor Center)
- Gas pumps (maintenance area)

- Propane tanks (at Visitor Center, maintenance area, McElhaney House)
- Metal gates limiting access to the Tour Road
- Metal gates at various junctions between public roads and park boundaries (maintenance area, park entrance, near park entrance, Edgar family cemetery access road, near McElhaney Branch, Farm Road 194, near Skegg's Branch)
- Metal post and wire perimeter fencing
- Worm fencing associated with Ray cornfield
- Worm fencing associated with Sharp crop fields
- Worm fencing at Manley cemetery
- Worm fencing at park entrance
- Worm fencing at wayside(s)
- Hitching rails, wooden, with metal rungs (at Gibson's Mill and Ray House pull-offs)
- Bollards
- Footbridges associated with trails (three along Gibson's Mill Trail, trail between Wire Road and East Battlefield Overlook parking pull-off)
- Cannon (at Bloody Hill, Backoff's Battery, Pulaski's Battery, Guibor's Battery)
- Stair landing
- Chain link fencing at maintenance area
- Dumpster (at maintenance area)
- Fire hydrants, various
- Metal culverts, various

Small-scale Features



Photo 57. A sign indicating the location of an equestrian trail crossing.



Photo 58. The Lyon Marker.

Small-scale Features



Photo 59. An etched stone atop Bloody Hill thought to have been carved by a soldier or veteran.



Photo 60. Two family cemeteries exist within the boundary of Wilson's Creek National Battlefield. Numerous granite headstones mark the graves of those buried in the Edgar and Manley family cemeteries. The National Park Service has provided signage to inform visitors about these sites.

Small-scale Features



Photo 61. There are three drinking fountains in the vicinity of the Visitor Center.



Photo 62. Numerous picnic tables are located in a picnic area near the Visitor Center.

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Small-scale Features



Photo 63. Metal post and wire fencing marks the park boundary for most of its perimeter. The Tour Road is visible in the background in this view from Farm Road 182.



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Photo 64. Worm fencing depicts the historic configuration of the Ray cornfield.

Small-scale Features



Photo 65. Worm fencing marks the entrance into the park.



JMA 1999/2000

Photo 66. Worm fencing and interpretive wayside exhibits sited along the Tour Road support interpretation of the Battle of Wilson's Creek.

Small-scale Features



Photo 67. This large stone, located near the Sigel's final position parking pull-off, appears to have been utilized in the past to anchor fencing.



Photo 68. Hitching rails edge the Gibson's Mill Trail pull-off.

Small-scale Features



JMA 1999/2000

Photo 69. Wooden footbridges occur along some of the park's trails, such as this one along the Gibson's Mill Trail, to provide crossings of intermittent stream and drainage corridors.



JMA 1999/2000

Photo 70. Replica cannon are located around the park to facilitate interpretation of the events associated with the 1861 Battle of Wilson's Creek. The cannon shown here mark the location of Backoff's Battery during the battle, near the junction of the Tour Road and the Wire Road.

Small-scale Features



Photo 71. The interpretive wayside located at the East Battlefield Overlook.

Utilities

The utilities located within the Wilson's Creek NB landscape are associated with both park use and operations, and with uses that extend beyond the limits of park boundaries. The two rights-of-way that cross the park include a KAMO 69 kv overhead electric transmission line located to the southeast of the Visitor Center, with an associated 100-foot-wide cleared easement, and a former gas pipeline, comprised of two buried 10-inch pipes, which crosses the park near the Greene and Christian County line. As noted earlier, one of the two pipes is currently not in use. The other houses a fiber optic communications line. These pipelines are buried, and there is little above-ground evidence of their existence.

On-site utility systems include a former wastewater treatment facility located to the east of the Visitor Center, replaced in 1995 by a leach field, a 550-foot deep well and underground water storage and pump room at the maintenance area, a well and septic tank at the Ray House, and a 525-foot deep well and septic tank with associated leach field located at the McElhaney farm complex. In addition, overhead electric lines provide power to the Visitor Center, maintenance area, McElhaney farm complex, and the Ray House.

The water system at the maintenance area is described in the 1986 Statement for Management as follows: "The water enters the 8,600-gallon concrete, below-grade reservoir immediately east of the pump room. It is pressurized by a hydro-pneumatic tank. Chlorination is provided in-line before entering the reservoir, The chlorinator operates only when the well pump is filling the reservoir....A separate 60,000-gallon reservoir, filled by the same well pump and stored at the same underground facility," supports the irrigation system for the Visitor Center lawn.

The park's wastewater treatment plant was replaced in 1995 with a leach field. Formerly, the plant served the Visitor Center and maintenance area. It was described in the 1986 Statement for Management as a "15,000 GPD physical-chemical treatment plant located just east of the visitor center. The plant is totally enclosed in a concrete building, partially underground to minimize intrusion on the local scene."

Electrical power is supplied by Ozark Electric Cooperative of Mount Vernon, Missouri, to the Visitor Center, Ray House, McElhaney farm complex, former wastewater treatment plant, and maintenance area. Behind the Visitor Center to its west is a transformer set on a concrete pad.

Inventory of Utilities

- · Overhead electrical transmission line
- Buried pipeline
- Wells at Ray House, McElhaney farm, maintenance area
- Septic systems at Ray House, McElhaney farm, Visitor Center
- Overhead electrical lines to maintenance area, Visitor Center, Ray House, McElhaney farm, former water treatment plant

Views and Viewpoints

The undulating topography of the Wilson's Creek landscape, and the extent of open vegetative cover on the site, allows for numerous views across the park. These views occur both from open knolls, and from lower lying areas that are maintained in open vegetative cover. Specifically, the dramatic, panoramic views of the battlefield landscape are afforded from the upland areas occupied by the Ray House precinct [*Photo 72*], the East [*Photo 73*] and West Battlefield Overlooks, and Bloody Hill. Other distant views are available along the Tour Road [*Photo 74*] and some of the pedestrian interpretive trails, for example at the Sharp House/Sigel's Final Position wayside, Price's Headquarters/Edwards Cabin site, and the pull-off where Guibor's Battery is interpreted.

For the most part, non-compatible adjacent conditions are currently well screened from view. Landscape features that intrude on park views include the 390-foot-tall exhaust stack associated with a City Utilities of Springfield power generating plant visible from portions of the park, the overhead electric transmission line and associated 100-foot-wide easement, and adjacent residential development along the northern and northeastern park boundaries.

Inventory of Views and Viewpoints

- West Battlefield Overlook
- East Battlefield Overlook
- Views from Bloody Hill to the east
- · Views from Ray House towards the south and west
- Views from Sigel's final position wayside across Sharp's fields and towards Bloody Hill
- Views from Guibor's battery wayside to the east and north
- · Views from Pulaski battery wayside toward Bloody Hill
- Views from Price's headquarters/Edwards Cabin wayside towards Bloody Hill

Views and Viewpoints



Photo 72. Residents of the Ray House are thought to have witnessed much of the Battle of Wilson's Creek from their porch atop an open knoll in the northeastern portion of the park. The precinct around the house, shown here, affords wonderful views to the west and southwest.



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Photo 73. High points within the park often afford dramatic panoramic views of the battlefield landscape. The National Park Service established two overlooks with viewing platforms, including the East Battlefield Overlook shown here, to facilitate these views.

Views and Viewpoints



Photo 74. Interpretive wayside exhibits throughout the park provide visitors with an understanding of the events and landscape resources associated with the Battle of Wilson's Creek. The wayside exhibits often are placed to provide unobstructed views of important resources and the surrounding landscape.

Archeological Resources

The end of this chapter contains an extensive summary of the NPS's knowledge of archeological resources associated with Wilson's Creek NB. The summary identifies all of the investigations that have been conducted at the site in support of research and protection of archeological resources over the past forty years. As part of this existing conditions documentation chapter, archeological resources are inventoried in a manner consistent with other landscape characteristics, but are not described in detail here. *Figure 87* indicates the general locations of known and potential archeological resources; area delineations and site numbers indicate the locations of known archeological resources based on previous investigations. Use of this map is restricted due to the sensitive nature of the information conveyed. The features listed below are the resources thought to have originated during historic periods, that have either been observed or have been previously documented in readily available literature and historic maps. Generally it should be noted that the entire park is a potential archeological resource and should be treated as sensitive.

Limited Inventory of Known and Potential Historic Archeological Resources

- Gibson's Mill site (LCS #70040)
- Remnant millrace (LCS #70040) (dam?)
- Gibson House site
- E.B. Short House site
- Trace road along county line
- Ford site, Wilson's Creek
- Missouri-Pacific Railroad line (abandoned) (Springfield Southern)
- Sinkhole(s) used for burials
- Well on Bloody Hill used for burials
- Edwards Cabin site
- T.B. Manley House site
- C.B. Manley House site
- Gwinn (or Guinn) House site
- Joseph Sharp House site
- Town of Wilson Creek site
- Quarry site

- Lime kiln near quarry
- Remnant stone wall along Wire Road
- Remnant dam along Manley Branch
- Foundation ruins along Wire Road near Pulaski Battery site
- · Foundations and ruins in woodlands north of Ray House
- House site near Osage orange living fence along Wire Road
- Trace roads, various, based on Civil War-era mapping

Condition Assessment of Landscape Features

The condition of features that have been inventoried in this chapter is assessed below. Each inventoried feature has been given a condition rating based on the definitions provided in either the NPS List of Classified Structures inventory program or the Cultural Landscapes Inventory program. Known and potential archeological resources have not been assessed. Many of the feature condition ratings have been annotated to include condition-related observations made in the field by the CLR team. Representative photographs of condition-related observations are included at the end of the section.

Condition Assessment by Landscape Characteristic Inventories

Responses to Natural Features and Systems

Feature Name	Rating
Wilson's Creek	Fair/Poor
This stream corridor is suffering from bank undercutting and erosion, channel widening, and stream bed scouring due to high velocities, heavy volumes, and surges in stormwater flow. The water quality of the corridor is poor due to the introduction of treated effluent one and one-half miles upstream at a wastewater treatment plan.	
Bloody Hill	Fair
The landform associated with this important knoll remains in good condition. However, the existing vegetative cover is not contributing to percolation of rainwater into the soil. Runoff is causing erosion and degradation of soil conditions. Glade vegetation communities are currently being degraded by a combination of invasion by Eastern redcedar trees, shading, and soil erosion.	

Skegg's Branch (also known as Schuyler Branch)	Fair/Poor
This intermittent stream corridor is suffering from bank undercutting and erosion, channel widening, and stream bed scouring due to high velocities and heavy volumes of stormwater flow.	
McElhaney Spring Branch or Creek	Fair
This intermittent stream corridor is also suffering the negative effects of periodic large volumes of high velocity stormwater flow.	
Manley Branch	Fair
This intermittent stream corridor is also suffering the negative effects of periodic large volumes of high velocity stormwater flow.	
Short's Branch	Fair
This intermittent stream corridor is also suffering the negative effects of periodic large volumes of high velocity stormwater flow.	
Cave(s)	N/A
Springs observed during field investigations	
• spring at Ray House	Good
Continues to maintain a strong flow.	
• spring at Short springbox	Good
• spring west of Tour Road near West Battlefield Overlook	Good
 spring east of KAMO overhead transmission line 	Good
• spring within cave east of Lyon Marker	Good
• spring within cave near southern park boundary with stone edging	Good

Circulation Patterns and Features

Feature Name	Rating
Wire Road (abandoned) (LCS #05075)	Fair/Good
This trace road has been rehabilitated during NPS administration of the site. Portions have been re-surfaced using brown gravel, but this treatment is not comprehensive over the system. The current route does not always follow the historic alignment.	

Highway ZZ	Good
Farm Road 182/Elm Street	Good
Edgar cemetery access road	Fair
This grass and hard-packed earth route includes some rutting and areas where water likely ponds after it rains.	
Farm Road 111	Fair
The pavement associated with this road and the parking/turnaround area that abuts the park is cracked and broken.	
Farm Road 194	Good
Wilson Road and ford along southern park boundary	Good
Abandoned Missouri-Pacific Railroad rail line grade	Good
Tour Road, and associated parking pull-offs (9):	Good
The vegetation associated with the road margins is not currently controlling stormwater, and erosion is evident along the margins of the roadway in places. The Tour Road paving is extremely light in color and visually intrusive.	
• Gibson's Mill site pull-off	Good
• Ray House pull-off	Good
Price's headquarters/Pulaski's battery/East Battlefield Overlook pull-off	Good
• Sigel's second position pull-off	Good
• Sigel's final position pull-off	Good
• Guibor's battery pull-off	Good
• Bloody Hill pull-off	Good
West Battlefield Overlook pull-off	Good
Horse trailer parking pull-off	Good
Horse trailer parking area	Fair
This designated grass and hard-packed earth overflow parking area is rutted in some places.	

Visitor Center parking area

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Good

Visitor Center sidewalks	Good
Picnic area walks	Fair
The gravel from these walks is migrating outside the intended prism.	
Nature Trail at Visitor Center	Fair
Vegetation is encroaching on the width of the trail. The trail surface is evidencing some erosion.	
McElhaney access drive	Good
This road is part asphalt, part hard-packed earth and gravel. Some cracking and ponding occurs near the junction of Farm Road 194 and the access road. Grass is growing within portions of the road prism.	
McElhaney sidewalk (LCS #70059)	Poor
At least portions of this sidewalk are cracked, and represent a trip hazard.	
Bloody Hill Interpretive Trail	Good
Trail between Bloody Hill and Edwards Cabin	Good
Gibson's Mill Trail	Good
Farm Lane (Ray Cornfield Trail)	Good
This hard-packed earth route is rutted in some places.	
Fire Road southeast of McElhaney House (Manley Uplands Trail)	Fair/Good
This grass, hard-packed earth, and gravel route is rutted in some places.	
Pulaski Battery Trail	Good
Trail between Gibson's Mill site and Wire Road	Good
West Battlefield Overlook Trail	Good
East Battlefield Overlook Trail	Good
Trails to access Ray House, Ray springhouse	Good
The walk leading to the Ray House is paved with asphalt. Between where the walk ends and the house, there is grass cover that is becoming compacted and eroded in places.	
Equestrian trails	Good

Equestrian trails

Good

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Cultural and Natural Vegetation

Discussion of Condition-Related Issues

Overall, the Wilson's Creek NB landscape—namely vegetation communities, soils, and hydrology—evidences observable on-going degradation. This is clearly depicted in the photographs taken during site visits in the spring of 2000. The series of photographs tell a compelling story of a landscape system that has become progressively depauperate from years of instability [*Photos 75-77, 80*].

Photos 78 and 79 illustrate changes in the Wilson's Creek watershed over the last several decades. It is evident from the lateral scouring and undermining of now exposed root systems of both old and young trees that significant amounts of water move through Wilson's Creek at unsustainable velocities. The movement of water through the watershed has eroded the depths of Wilson's Creek vertically over the course of millions of years, probably with the help of plateau uplift. Today, bedrock is exposed and the riverbanks continue to erode laterally [*Photo 81*]. Further assessment of the riverbank and low terrace line of Wilson's Creek indicates that the terraces are laden with several feet of sediment [*Photo 83*] and are dominated by young, even-aged tree species. A large oak located in the foreground of *Photo 82* likely established itself on the bank before World War II, indicating the terrace line during that time period. From the age of the young trees (about 20 years old), and the general condition of the ground cover vegetation, it would appear that much sediment was laid down during the post-war proliferation of mechanically implemented row-crop agriculture and its attendant soil erosion problems. Photos 84-85 further document problems within the watershed. Increases in runoff represent roughly the reciprocal of infiltration. As the land degrades floristically and the resultant runoff increases, the stream bottoms are headcut and their banks spread, while the springs dry up. The progressive loss of soil exacerbates the difficulty for native plants to retain their competitive advantage in the attendant ecosystems.

Today, most of the park is maintained in mown meadows of cool season Eurasian grasses or woody thickets with an overgrown shrub layer of non-native coralberry. The loss of stable plant communities continues to cause the loss of soil organic matter due to damaging surface runoff [*Photos 86-96*]. These areas now comprise what is referred to in this document as "old field" communities. Chronic inhabitancy by Eurasian species, row-crop tillage, and fire suppression have led to diminishment of the topographic and hydrologic integrity of these areas. The shading of the wooded tracts had led to a loss of the woodland groundcover species with fibrous root systems that are necessary for retaining topsoil. The loss of organic soil matter in the tilled soils has contributed to the shift from infiltration to runoff. Native grassland can produce 13,000 to 18,000 pounds of root mass per acre, while corn and soybeans produce less than 800. Without root mass, there is little to catch or hold available water from precipitation or condensation. Roads and other impervious surfaces contribute by focusing runoff into channels and ditches. The result is a transition from infiltration to runoff causing erosion, and a loss of available soil moisture to support plant life. While the old fields comprise the largest existing vegetation cover in the park, they also contain the fewest native plant species and the lowest floristic quality. These areas contain an abundance of non-native weeds as listed previously in this chapter. These invasive plants fail to contribute to the sustained health and stability of the ecosystem.

The fire-suppressed savannas are deprived of sunlight on the ground plane and contain few remnants of native groundcover species, many of which have been displaced from their original habitats [*Photos 97-101*]. Of the few remaining trees that are likely to be of pre-settlement vintage, most have been severely shade-pruned and are in decline [*Photos 102-103*]. Existing native plant

community vestiges persist at Wilson's Creek largely in areas that have been subject to prescribed fire by NPS [*Photo 104*].

Photo 105 is the view from the East Battlefield Overlook on the eastern high ground. The landmarks referenced on the wayside are obscured by the dense growth of young trees and other woody vegetation, even though the photo was taken in the early spring of 2000 prior to the emergence of any leaves. This underscores the rapid landscape transformations that undesirable surges in woody growth in today's fire-suppressed landscape.

The current condition of the glade communities is best depicted in *Photos 106-109*. Once open, the glades are now dominated by Eastern redcedar. The resulting dense shade is a significant threat to the survival of the glade ecosystem.

Feature Name	Rating
Springs plant community	Poor
Riverbanks, low terraces, and bars plant community	Poor
High terraces plant community	Poor
Mesic and cherty savannas plant community	Poor/Fair
Glades plant community	Poor
Old fields and pasture plant community	Poor
Restoration areas plant community	Fair
Cultural areas:	
Living fence remnant	Fair
Ornamental plantings associated with Visitor Center	Good
• Screen plantings (associated with Tour Road views)	Good
• Ornamental plantings (associated with Tour Road pull-offs and trailheads)	Good
• Row of sugar maples at Ray House	Good
• Row of sugar maples near Sharp House site	Good
Eastern redcedars at cemeteries	Fair

Feature Name	Rating
Ray House (LCS # 01381)	Good
Some paint is peeling from the rear façade of the house. The wood shingles are in fair condition and should be carefully inspected. Care should be taken to keep the grade at least four inches below the siding at the rear of the house, as some wood rot is beginning. The foundation shows the need for some maintenance—stones are loose and mortar is deteriorating in many locations.	
Springhouse at Ray House (LCS #70052)	Good
The renovation of the springhouse in 1985-86 is evident due to its overall condition. The stone joints should be periodically evaluated, as some deterioration in the mortar is apparent. Tuck-pointing of the joints should be done as necessary.	
Water storage structure	Good
Short springbox (LCS #70053)	Good
Hydric plants and moss are growing in and around the spring, but the stone work appears to be unaffected.	
McElhaney House/Building No. 6 (LCS #70054)	Good
The fascia boards show some signs of wood rot. Biotic growth is apparent on the roof and fascia boards. Some wood rot was detected on the north side of the second floor.	
McElhaney smokehouse/Building No. 7 (LCS #70057)	Fair/Good
Repairs, including new sheathing and shingles, appear to have stabilized the roof. Metal screen/grate panels over the windows have begun to rust, are staining the siding and should be removed. Paint is peeling most notably on the east side of the structure. Minor wood rot is apparent at the door and threshold due to lack of paint. Some minor cracking of the foundation is evident on the north side of the building.	
McElhaney barn/Building No. 8 (LCS #70055)	Fair/Poor
The structure is in overall fair condition. Water infiltration has caused severe deterioration of wood structural and surface materials. Water from the road has eroded the ground to the east of the barn, allowing severe damage to the board and batten sheathing and to the structural columns in the lower level and sill beam on the first floor. Insect infestation is also evident and appears	
Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I	
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to be deteriorating structural members on the first floor. Most of the paint has weathered away. Corrugated metal roofing has stabilized the roof structure at the present time.	
McElhaney root cellar (LCS #70056)	Fair/Poor
The concrete of the cellar entrance is deteriorating. Cracking of the material is evident especially at the upper corner of the entrance. The wood door is in poor condition. Due to unpainted surfaces, the wood has been exposed to the natural elements which has led to weathering and rot of the wood. Vents are rusting, dented, and in overall poor condition.	
McElhaney cistern (LCS #70058)	N/A
The cistern is covered. Only a concrete sill and wooden cover are apparent.	
Stone wall #1, near Steele farmstead (LCS #70060)	Good
No significant deterioration was observed.	
Stone wall #2, near Sharp farmstead (LCS #70061)	Fair/Good
A portion of the wall ends in a rubble pile.	
County Road Bridge	Good
The bridge is in overall good condition. The steel shows very little rust. Paint should be maintained to prevent future deterioration. Some deterioration of the wood is apparent on the top drive boards. The wood is weathered, but in overall good condition. The creek banks should be checked periodically to ensure stability for the bridgeheads. The earth appears to be eroding at those locations.	
Visitor Center	Good
Some joints are showing signs of damage.	
Picnic shelter at Visitor Center	Good
Former wastewater treatment plant	Good
Maintenance buildings (5)	Good
Tour Road bridge at McElhaney's Branch (Bridge 1)	Good
Tour Road bridge at Wilson's Creek (north) (Bridge 2)	Good
Tour Road bridge at Wilson's Creek (south) (Bridge 3)	Good

Concrete culvert associated with rail bed crossing of Manley Branch	Fair/Good
This structure is being undercut by surges in stormwater flow.	
Edwards Cabin (ca. 1850)	N/A
This structure is "mothballed" under protective plywood and corrugated metal. A trip report by regional NPS personnel in March 2001 described a "relatively intact log structure."	
Small-Scale Features	
Feature Name	Rating
Lyon Marker (LCS #05074)	Good
The stone is overall in good condition. Some biotic growth is apparent, which should periodically be removed. The monument's concrete footing is becoming exposed due to compaction and erosion of the hard-packed earthen trail around it.	
Etched stone on Bloody Hill	Fair/Poor
The inscription is fading due to weathering.	
Metal post and wire perimeter fencing	Good
Worm fencing associated with Ray cornfield	Good
Worm fencing associated with Sharp crop fields	Good

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Worm fencing at Manley family cemetery	Good
Worm fencing at park entrance	Good
Worm fencing at wayside(s)	Fair/Good
Chain link fencing at maintenance area	Good
Metal gates limiting access to the Tour Road	Good
Metal gates at various junctions between public roads and park boundaries	Good
Footbridges associated with trails	Good
Replica cannon	Good
Picnic tables and benches	Good

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Benches	Good
Trash receptacles	
Dumpsters	Good
Flagpole at Visitor Center	Good
Bike racks, metal	Good
Bike posts, wooden, with metal locking devices	Good
Telephone stand	Good
Overhead and bollard-type lighting at Visitor Center	Good
Drinking fountains at Visitor Center	Good
Gas pumps at maintenance facility	Good
Propane tanks (various locations)	Good
Directional and informational signage, painted wood, NPS (various locations)	Good
Directional and informational signage, metal	Good
Interpretive waysides, metal carriers, fiberglass panels	
A few of the older panels, particularly those located along the Gibson's Mill Trail, are green with mildew.	
Headstones located within the Edgar and Manley family cemeteries ¹²	Good
Individual stones exhibit different degrees of weathering, related primarily to age. A few of the stones are tilting. Some of the older stones are becoming difficult to read, and contain lichen growth. Individual stones have not yet been assessed.	
• Manley, Caleb & Rebecca headstone, Manley cemetery (LCS #05076)	Good
• Manley, Martha (?) headstone, Manley cemetery (LCS #70048)	Good
• Prunty, D.C. headstone, Manley cemetery (LCS #70049)	Good
• Jennings, William headstone, Manley cemetery (LCS #70050)	Good
• Howe family headstones, Manley cemetery (LCS #70051)	Good
• Edgar, Susanah & J.J. headstone, Edgar cemetery (LCS #05077)	Good

¹² Headstone condition ratings taken primarily from NPS List of Classified Structures.

•	Couch, Elisha P. headstone, Edgar cemetery (LCS #70041)	Good
•	Couch, Sarah J. headstone, Edgar cemetery (LCS #70042)	Good
•	Couch, Elisha M. headstone, Edgar cemetery (LCS #70043)	Good
•	White, Elizra B. headstone, Edgar cemetery (LCS #70044)	Good
•	Elmer, Hubert headstone, Edgar cemetery (LCS #70045)	Good
•	Edgar, John & Centha headstone, Edgar cemetery (LCS #70046)	Good
•	Edgar, Jannie L. headstone, Edgar cemetery (LCS #70047)	Good

Views and Viewpoints

Feature Name	Rating
West Battlefield Overlook	Good
The primary intrusion on this view is the electrical transmission line.	
East Battlefield Overlook	Fair/Good
During the growing season, woody vegetation partially obscures the view.	
Views from Bloody Hill	Fair/Good
Views from Bloody Hill remain partially obscured by woody vegetation.	
Views from Ray House	Good
Views from Sigel's Final Position wayside	Good
Views from Guibor's Battery wayside	Good
Views are partially obscured by woody vegetation.	
Views from Pulaski Battery wayside	Fair
Although attempts are made to mechanically clear this view, it continues to be partially obscured by woody vegetation, and views to Bloody Hill are not easily interpreted.	
Views from Price's Headquarters/Edwards Cabin wayside	Good



Photo 75. A young elm growing along the Tour Road ditch. This ditch shows major erosional activity which has formed downcutting of 6 to 8 feet in some locations. This ditch is one example of the many dewatering conduits for the groundwater infiltration that once sustained fresh water springs within the park.



CDF 2000

Photo 76. One of only a few remaining pre-settlement trees located within the park. It is being undermined along the ditch referenced above.

Vegetation Condition Assessment



Photo 77. An old field fence and young trees undermined by contemporary erosion.



Photo 78. The lateral scouring and exposure of tree root systems evident in this photo illustrates the significant erosion occurring along the Wilson's Creek channel. In a related process, post-World War II-era trees are growing on a terrace above the creek bank that is now laden with one to two feet of sediment.



Photo 79. Additional view of the banks of Wilson's Creek and associated erosion problems.



Photo 80. Skegg's Branch entering Wilson's Creek. The photo shows sloughing banks and undermined trees. The problem is exacerbated by overland flow entering from off site.

Vegetation Condition Assessment



Photo 81. The energy of the flow within Wilson's Creek, which once eroded the depths of the stream, has reached bedrock. During periods of heavy flow, the creek is eroding the channel laterally.



Photo 82. The large oak in the foreground likely originated prior to World War II. Its current position indicates the terrace line of the creek at that time. Note the accumulation of sediment along this terrace. All trees growing on the upper terrace are less than 20 years old, indicating that this disturbed area was once open.

Vegetation Condition Assessment



Photo 83. The base of a sycamore tree growing on a sediment-laden terrace. The excess layers of sediment suffocate the root systems of mature trees resulting in their decline or death.



Photo 84. An accumulation of debris indicates the intense velocity and volume of stormwater during periods of heavy rainfall.

Vegetation Condition Assessment



Photo 85. A young elm on a steep slope near Skegg's Branch showing dammed colluvium above the root flare and undermining of the downslope root system. Some remnant vegetation exists on the slope. However, the native grasses and sedges that would have secured the slope and captured surface water are missing.



Photo 86. A gully originating within an old field or pasture that is currently covered with weedy thicket vegetation. The groundcover layer is dominated by woody root systems or shallow-rooted weeds; the original fibrous root matrix that would have helped hold the soil has been shaded away.

Vegetation Condition Assessment



Photo 87. A gully formed in an old field. Note the thicket which has emerged from the fallow field. The gully still carries water, but not with the intensity that it did prior to the abandonment of agricultural activities. It is likely that, as the shade intensifies in this watershed, the gully will begin to carry a new load of surface runoff.



Photo 88. The mouth of the gully shown above indicates that it is both headcutting and widening with the amount of water currently flowing through it. Notice the young exposed roots and sloughing of vegetation.

Vegetation Condition Assessment



CDF 2000

Photo 89. Here, an old agricultural gully originating prior to the 1960s has healed over as a result of supplemental seeding of warm season grasses and abandonment of agricultural activities. Note that the shading by the even-aged thicket is preventing the regeneration of native vegetation and will gradually reintroduce erosion into the system.



Photo 90. Evidence of on-site erosion beginning to occur in fallow fields now shaded by young weedy tree species.



Photo 91. A deep, active gully hidden by coralberry and blackberry shrubs.



Photo 92. A former pasture now dominated by weedy trees and shrubs.



Photo 93. Eastern redcedars in an abandoned field are evidence that prescribed burning is not occurring on a regular basis.



Photo 94. A stand of poison ivy in a fallow field along a farm road.



Photo 95. This field is dominated by invasive Sericea lespedeza which was likely planted for wildlife habitat. Monocultures of warm season grasses provide no substrate for pollinators (insects) and their food chain.



CDF 2000

Photo 96. This fencerow is elevated above the soil levels of the surrounding fields. This suggests that significant erosion occurred when the fields were planted in row crops.



Photo 97. A steep east-facing palisade along Wilson's Creek showing a small cave. The talus slope has both colluvial and erosional components with significant shading from young trees.



Photo 98. Post-settlement trees growing along an old rock wall on the north edge of a large field located north of Bloody Hill. The wall extends due east and west.



Photo 99. A rock wall looking uphill to the south. Note the colluvial sediment built up behind the wall during periods of row crop agriculture.



Photo 100. Post-settlement trees along an old rock wall. Note the extreme size class differential between the young and old post-settlement trees. This indicates a long period where the landscape was maintained as open, with a more recent growth of weedy trees that are shading out native understory species.



Photo 101. A view of a remnant talus slope along the abandoned rail bed. The area has been damaged by post-settlement fire suppression, intense shading, and sheet erosion.



Photo 102. Effects of ambient shading on a pre-settlement tree by the dense thicket growing in a post-World War II fallow field.

Vegetation Condition Assessment



Photo 103. A pre-settlement chinkapin oak at the edge of a glade. Note that there are still a few original large lower branches that have not been shade-pruned by the recent flush of weedy tree and shrub species. The broad canopy of this tree indicates years of growth in an open landscape.



Photo 104. Evidence of burning at the base of an oak in the Manley woods. Note the healthy tufts of a native sedge which once clothed these slopes, providing a matrix for water absorption and the growth of many flowering species and associated insects.

Vegetation Condition Assessment



Photo 105. An obstructed view of featured landmarks from the East Battlefield Overlook above the Manley woods.



Photo 106. Fast-growing Eastern redcedars threaten existing glade and chinkapin oak communities. Cedars are not believed to be native to this area.

Vegetation Condition Assessment



Photo 107. A close up view of a glade overrun by Eastern redcedars and Japanese honeysuckle. The native glade vegetation is at risk of extinction at Wilson's Creek due to dense shading by such invasive species.



Photo 108. Eastern redcedars overtaking a glade and shading native vegetation. What little soil remains on the glade is at risk of being washed away by surface erosion. As the soil erodes away, it will carry with it any remaining native seeds.



Photo 109. The glade along a limestone break now dominated by Eastern redcedar trees. Many of the native glade lichens are being shaded away.

Summary of Existing Knowledge of Archeological Resources

Introduction

The approximately 1,750 acres of rolling hills and Ozark uplands which encompass the Wilson's Creek NB contain archeological resources that provide evidence for a continuous 10,000 year use of the area. American Indians occupied the battlefield and surrounding vicinity intermittently from about 10,000 years ago [BP], to the first quarter of the nineteenth century. European-American settlement of the battlefield and general vicinity began during the second quarter of the nineteenth century.

Despite the relatively recent establishment of the park, a substantial amount of archeological investigation has been performed within its boundaries. Most of this work has been initiated as a result of development and management decisions or completed in compliance with Section 106 of the National Historic Preservation Act. Because extensive survey and archeological sampling has been performed on a limited number of targeted, mostly historic sites, little is known about the archeological potential of the greater park landscape.

A recent assessment of Wilson's Creek NB's archeological resources notes that there are fifty *recorded* archeological sites within park boundaries, about half having historic components and the rest having prehistoric components.¹³ Given the existing knowledge of the extensive pre-1960 historic occupation within the battlefield, and the larger knowledge of regional American Indian occupation within the Ozark plateau, it may be assumed that the park contains a substantial number of additional, unidentified archeological sites.

Wilson's Creek NB was created in 1960 to preserve the site of the August 10, 1861, Battle of Wilson's Creek. Since its establishment, management objectives have been to restore, as accurately as possible, the 1861 historic scene and conditions, including cultural and natural resources. In order to fulfill and implement this directive, the park must have a working knowledge of the entire property's archeological resources. This section will summarize and review known archeological sites within park boundaries, discuss evidence for unrecorded prehistoric and historic finds, and propose a survey for their identification.

Archeological Reports on Investigations conducted within Wilson's Creek National Battlefield since 1960

Archeological reports on investigations conducted within Wilson's Creek NB have been carried out within two major periods. These periods have been identified for the purposes of this summary as *Preliminary Identification and Interpretation of Park Resources*, and *Park Development Mitigation and Stabilization and Restoration Efforts*. The first phase of investigations—Preliminary

¹³ Douglas D. Scott, DRAFT "Archeological Overview and Assessment for Wilson's Creek National Battlefield, Greene and Christian Counties, Missouri" (Lincoln, NE: National Park Service, Midwest Archeological Center, 1999), 23-24. Although Scott states that of the fifty sites, twenty-five have historic components, a count of his table shows only twenty-four having this distinction. There may be some confusion because some sites may have both historic and prehistoric components, as is clearly suggested in some of the original archeological field reports. In addition, the 1986 "Statement for Management" includes a list of thirty prehistoric 'sites,' five of which have historic components, identified within park boundaries. See National Park Service, "Statement for Management" (Republic, MO: Wilson's Creek National Battlefield, December 1986), 23-24.

Identification and Interpretation of Park Resources—was conducted in 1966-67 and 1974-75, and targeted a range of known historic sites. Investigators focused on locating and identifying every known historical feature dating to the 1861 period of significance within the park boundary. The second phase of investigations—Park Development Mitigation and Stabilization and Restoration Efforts—began in 1978 and continued intermittently over the next eight years. The investigations conducted during this period related to planned park development of natural and cultural resources. Much of the work accomplished during this phase was archeological mitigation associated with the construction of the Visitor Center and Tour Road. In addition, interpretive archeological research was carried out at the Ray House in conjunction with the proposed architectural stabilization and restoration of the historic structure.

The reports below are summarized in order of their publication date. In some cases a report was issued several years after the initial fieldwork.

Preliminary Identification and Interpretation of Park Resources

Formal archeological investigations within Wilson's Creek NB began in the mid-1960s after substantial portions of the battlefield had been transferred to the federal government. This initial work focused on the northern part of the site located in Greene County, particularly those historic properties which were significant to the Battle of Wilson's Creek. Surveys and excavations investigated targeted historic features including the area of Bloody Hill and other important domestic sites present in 1861 such as the Gibson House, Mill, and dams, the E.B. Short House, and the Gwinn [sic] House. A year later, the archeological investigations continued. Historic sites targeted during this work were the Edwards Cabin, the Short spring, and completion of the excavations at the Gibson House and Mill sites. During survey and excavations conducted in 1966, several 'incidental' historic and prehistoric sites were also identified. In 1974 and 1975, archeological investigations were begun in the southern part of the battlefield in Christian County after transfer of the remaining properties within the proposed limits of the park to the federal government. These investigations continued the work of locating and identifying known historic sites including the Joseph Sharp House, the T.B. Manley House, the C.B. Manley House, and various outbuildings and features associated with the Ray House. In addition, efforts to locate a second sinkhole and a well were unsuccessful. The scope of the archeological investigations during this period was also expanded to "locate and evaluate the significance of prehistoric sites."

Bray, Robert. Inventory and Assessment of the Archeological Resources at WCNB, Republic, Missouri (1966)

During April and May, and August through October 1966, archeologists from the University of Missouri conducted surveys and excavations at Wilson's Creek NB designed to locate, excavate and define various cultural and natural features present on the field during the Battle of Wilson's Creek and to accumulate basic data to be used in possible restoration and/or on-site and museum interpretation. The particular requirements included a metal detector survey of Bloody Hill to recover artifacts and to discern evidence for encampments, troop, and artillery positions, to locate and excavate the sinkhole and to determine its 1861 appearance, and to conduct an intensive survey to locate and excavate the sites of the E.B. Short farmstead, Gibson House and Mill sites, and the Gwinn House site.

The Bloody Hill survey was conducted with the aid of a metal detector, and a grid of four quadrants was laid out over the entire project area. Very little was found during the survey due to previous metal detecting prior to the establishment of the park, and the density of brush in some areas. No troop or artillery positions could be identified. A total of three battle-related items were recovered,

and nine other artifacts were identified as possibly dating to 1861. These included a horseshoe, lead buckshot, iron canister pieces, and an iron chain.

Excavations at the sinkhole were preceded by a general site clearing of the vicinity. Before excavations, the sinkhole measured twenty-five by fifteen feet and was recorded as having a relative depth of thirty-seven inches below ground surface. A substantial amount of fill, including soil, five tons of field rock, and metal and glass debris was removed from the top level of the feature, probably the result of years of filling the sinkhole. Few human remains or period artifacts were recovered at this level. At a depth of ninety-two inches below ground surface, natural rock ledges on the south and north sides of the sinkhole were encountered. Significantly more artifacts were recovered below this level. These included bottle glass, minié balls, canister shot, bail brackets, a steel trap, bone and porcelain buttons, brass military buttons, uniform twill cloth, and a total of 222 human remains, mostly hand and foot bones.

Several period battlefield maps were used to locate the Gwinn House site. Two potential locations for the house site were surveyed using a metal detector, an area north of the Wire Road and an area south of the Wire Road, each east of Wilson's Creek in the southwest quadrant of the northwest quadrant of Section 25. A knoll overlooking Wilson's Creek was chosen as a likely spot for the Gwinn House. Archeological trenches were excavated in three separate areas. The last trench, ninety-five by three feet, revealed a substantial amount of ceramics including stoneware and whiteware. Several limestone blocks were also found that may have served as house or chimney foundation. Several prehistoric artifacts were also recovered from the Gwinn House site. Three projectile points, one a Graham Cave notched, and two lanceolate forms with stem and base, two choppers, a blade fragment, and several chert flakes were also found in the trench.

The Gibson House and Mill sites were located with the assistance of park personnel and former residents of the Wilson's Creek area. The Gibson Mill site was found on the east bank of Wilson's Creek with one quarter of the mill house extending into the water. The structure's remains consisted of several submerged wooden sills in Wilson's Creek, and a stone foundation with chimney base and some burned wooden timbers on land. The mill structure remnants located on land was entirely excavated. In the efforts to expose the submerged sills, a rectangular frame and housing for a turbine was discovered. Several parts of a turbine were also found. Within the turbine housing numerous mill stone fragments were found. Three large fragments of a single disk millstone, and a total of 59 complete sections and section fragments of a bound type were recovered throughout the site. All were identified as a brecciated and cellular chert that was quarried locally. Artifacts recovered at the mill site included an iron hub and spokes, gearing fragments, bottle glass, window glass, millstone hoops, a snow knocker, whiteware and porcelain ceramics, charred wood, several unidentified ferrous milling-related implements, and two prehistoric tools. Hundreds of machine cut nails were recovered throughout the site.

Examination of Wilson's Creek identified a headrace paralleling the watercourse and two dams related to the Gibson Mill. The headrace was traced upstream 3,862 feet where it crossed Wilson's Creek near the northern park boundary.¹⁴ At its confluence with Wilson's Creek, approximately 1,193 feet north of the park, a 30-foot long sluice was identified. The long headrace is likely related to an overshot wheel known to have existed at the Gibson Mill. The sluice and northern quarter of this headrace is located outside the boundary of Wilson's Creek NB. A second dam closer to the

¹⁴ The headrace may have crossed Wilson's Creek on a raised wooden trestle. See Robert T. Bray, "Inventory and Evaluation of the Archeological Resources at Wilson's Creek National Battlefield, Republic, Missouri" (Columbia, MO: University of Missouri-Columbia, 1966), 107.

mill, and only 110 feet upstream, was found. This dam created a pond and may have been related to the later turbine.

The Gibson House site was located approximately 150 yards northeast of the mill site on a subtle terrace. The house site was severely disturbed by subsequent agricultural plowing and much of the house foundation had been thrown into a basement 'ell' extension through field clearing. Charred wooden remains were found, suggesting the house had burned. Several large excavation units were placed within the ell extension. A four-inch-thick layer of charcoal and charred wood were found at the bottom of the units. The artifacts recovered from the Gibson House site included window glass, escutcheon plates, doorknob fragments, a lead shot mold, bone handled cutlery, a pewter pitcher handle and utensil fragment, whiteware and porcelain ceramics, horseshoes, and various iron agricultural hardware and implements. Numerous machine cut nails were found throughout the site.

The E.B. Short farmstead was located through a metal detector survey and the presence of lowprofile mounds and a depression in the selected survey area. The site was later verified by local residents as the Short farmstead. Three potential features were identified: a house, a barn and a root cellar. At the house, excavations revealed a twenty-foot-square limestone foundation and chimney base. The house site was severely impacted by subsequent agricultural plowing and much of the foundation and chimney was likely deposited into the adjacent root cellar. Excavations at the root cellar revealed a three-foot-square foundation. An elliptical arrangement of limestone surrounded the root cellar. These stones may have been placed in and near the root cellar by subsequent farming activities. Artifacts recovered from the Short farmstead included typical agricultural and farm related tools and implements dating from the late nineteenth to the early twentieth centuries including bottle and flat glass, ceramics, shovel blades, hoe blades, nails and horseshoes. Several battle-related items were recovered including a cannon shell, mess spoons, and an infantry belt buckle with a raised 'U.S.' The barn site was not positively identified.

Several historic and prehistoric sites 'incidental' to the proposed work were discovered as well. At the Gwinn House site, these artifacts were dated to the Paleo-Indian or Archaic periods. At the Gibson House and Mill site and the E.B. Short farmstead, the prehistoric artifacts recovered were all non-diagnostic. Adjacent to the E.B. Short farmstead, a spring and prehistoric site were discovered in connection with the search for the Short House location. The site consisted of a deep midden containing abundant chert lithics. A sample of artifacts was collected from the Short spring site.

Bray, Robert. Wilson's Creek Revisited: An Account of the 1967 Excavations (1967)

Archeologists from the University of Missouri returned to Wilson's Creek NB in the summer of 1967 to continue the excavations begun in 1966. The goals for the 1967 survey and excavations were to locate the Edwards Cabin site, excavate the prehistoric Short spring site, complete the excavations of the Gibson House including basement ell and root cellar, explore the millrace crossing site, and complete additional work at the Gibson Mill site.

At the Gibson House site, the excavation of the basement ell was completed and the fill entirely removed. A substantial number of artifacts were recovered from the ell basement and were consistent with earlier excavations, dating to between 1860 and 1900.

A surface depression located sixty feet southwest of the Gibson House was also excavated. The feature measured approximately eighteen feet in diameter and was excavated to a depth of seven feet. A large amount of the fill was soil and limestone rubble. Artifacts recovered from the feature included a large amount of early-twentieth-century bottle glass and whiteware and ironstone

ceramics; faunal remains; and typical metal agricultural and farming tools and equipment. Preliminary interpretation suggests that the feature may once have been a root cellar but that during the late nineteenth and early twentieth century it also served as a receptacle for domestic trash.

The probable location of the Edwards Cabin was identified using battlefield period maps. A total of three trenches were excavated on a relatively high terrace to identify the cabin's particular location. The first trench was excavated in an east-west direction and measured three by fifty feet. Only a few ceramics were found at the eastern end. A second trench measuring three by fifty feet was excavated perpendicularly on the east end of the first trench. Additional ceramics, nails and glass were found. A third trench was excavated two hundred fifty feet south recovering only one artifact. No foundation stones were found. Despite the lack of structural evidence it was presumed that the concentration of material culture indicated the general location of Edwards Cabin.

The excavation of a thirty-foot trench through the thick midden deposit in the location of the Short spring prehistoric site failed to recover any prehistoric artifacts and the investigations were concluded.

Minimal excavations at the Gibson Mill headrace crossing in the bed of Wilson's Creek failed to recover any evidence for the wooden trestle structure which carried the headrace across Wilson's Creek.

Additional excavations at the Gibson Mill site in the bed of Wilson's Creek recovered more mill stone fragments, a mill pick, a leather and metal grain cup, and a turbine drive shaft and pulley hub with broken spikes.

Additional documentary research into the Gwinn House site revealed a possible alternate location for the structure, approximately three quarters of a mile east-southeast of the originally identified site.

Bray, Robert. Inventory and Evaluation of the Archeological Resources, WCNB, Missouri. (1975)

During November 1974 and April and October 1975, archeologists from the University of Missouri conducted a survey and excavation of the southern part of Wilson's Creek NB in Christian County. The project goal was to inventory and evaluate all prehistoric and historic sites, in particular the location of the Joseph Sharp House, the T.B. Manley House, the C.B. Manley House, and to locate and evaluate the significance of the outbuildings and features associated with the Ray House. Archeologists also attempted to find a well and second sinkhole referred to in the burial records of the National Cemetery, and to locate and evaluate the significance of known historic and prehistoric sites. During the project, archeologists also examined the potential sites for the location of a new Visitor Center and two new employee houses.

The site chosen for the new Visitor Center was surveyed by metal detector and systematic excavation of shovel test pits. No evidence of previous historic or prehistoric occupation was discovered. Examination of both house sites with a metal detector concluded that no historic or prehistoric remains would be impacted.

An examination of the immediate vicinity surrounding the Ray House identified several potential areas for subsurface features. A coal pile was identified within the eastern corner of the Ray House fenced yard. A metal detector survey was conducted outside the fence. A sixty-by-eighty-foot area southwest of the Ray House contained a substantial amount of metal and was highly disturbed, suggesting it may have been a barn. Documentary and oral history sources also suggested the

presence of a slave cabin, barn, chicken house, cattle house, smokehouse, fenced garden, privy, and springhouse. Both the cattle shed and springhouse were located across the Wire Road from the Ray House. While none of the locations of the structures could be identified by metal detector, a map of the probable locations was drawn. Artifacts recovered from the vicinity of the Ray House included a plow hitch fragment, a barrel hoop, a cast iron stove leg, and a wagon wheel fragment.

Despite a significant amount of testing, no physical remains dating to the Joseph Sharp farmhouse period of occupation could be identified. The probable location of the farmhouse was determined through battle period maps. An extensive area was surveyed by metal detector and examined with a probe and soil corer. Only limited subsurface testing was performed because a later domestic residence occupied by the Steele family was constructed in approximately the same location and the area was likely plowed for agricultural purposes. Artifacts recovered from the Sharp/Steele site dated to the period between 1880 and 1920 and included farming and agricultural tools and implements, stoneware and whiteware ceramics, and window and bottle glass.

A second burial sinkhole from which bodies were recovered for reburial is documented in the records from the National Cemetery at Springfield, Missouri. The records described the location of the second sinkhole. Two probable areas were examined by metal detector and magnetometer. Efforts to locate this sinkhole again were not successful.

In addition to the two sinkholes, the records from the National Cemetery noted a well that was used for burial purposes. No well could be located using the exact information from the reburial records. However, a re-scaling of directions came close to a known well site discovered in 1967. This circular well was twenty-eight inches in diameter and was lined with limestone cobbles. The well shaft was nearly seventeen feet deep. The well was not examined archeologically.

The C.B. Manley House site was located with the assistance of battle period maps. No archeological survey or excavation was conducted. The Manley cemetery was also located south of the C.B. Manley House site. A total of fifty-seven markers were noted.

The probable location of the T.B. Manley House was located with the assistance of former Wilson's Creek area residents. It was approximately four hundred feet north of the basement of the Glidewell House. No archeological survey or excavation was conducted.

A total of nine prehistoric sites, including two cave sites, were identified. A brief description of their locations suggests that they were found by residents and park employees after noting artifact concentrations in plowed fields and eroded embankments. A sampling of artifacts from each site was recovered. Within 23GR248, a cave with a thirty-foot entrance, a single one-by-two-foot test unit was excavated. Some faunal material and chert flakes were recovered.

Park Development Mitigation, Stabilization and Restoration Efforts

Archeological investigations within Wilson's Creek NB continued in 1978 with pre-construction mitigation of the proposed sites for the Visitor Center and Tour Road route. In 1978, shovel testing of the construction site proposed for the Visitor Center did not identify any cultural resources. In 1980, a sewer line running to the Visitor Center was constructed through a known prehistoric site at the location of the Short spring. The groundbreaking was monitored and a report filed. From 1981 to 1983 archeological survey and shovel testing was carried out on the route of the proposed Tour Road. In 1984, eight archeological sites identified along the route of the proposed Tour Road were investigated in order to determine their significance and chronological and spatial contexts.

Contemporaneous with the mitigation work along the proposed route of the Tour Road, survey and excavations were conducted in 1982 and 1983 both within and outside the Ray House in conjunction with proposed stabilization and restoration efforts. In December of 1983, shovel testing to locate and identify archeological resources was carried out in four proposed areas designated for the removal of exotic or adventive vegetation. In 1999, the human remains recovered from the 1966 sinkhole excavations were analyzed. In the same year, a report was filed on the impact of illegal collecting in the vicinity of the Ray House. Also in 1999, a draft Overview and Assessment of the archeological resources present in Wilson's Creek NB was completed.

Cellar, Craig. Trip Report, 10/2/1978 (1978)

During September of 1978, Craig Cellar of the Midwest Archeological Center (MAC) visited Wilson's Creek NB to examine archeological resources and suggest ways in which MAC could assist the park's future development and interpretation. In particular Cellar suggested that he examined, with occasional subsurface shovel testing, the site of the proposed Visitor Center and did not locate any cultural resources. He later re-identified all of the archeological resources located by Robert Bray in 1975 and drove the route of the proposed Tour Road. While acknowledging that the park's cultural resources had been surveyed and inventoried, he stated that only half of existing sites had likely been located due to the density of grasses and undergrowth throughout the battlefield property. Based on this, he recommended that the proposed route of the Tour Road and associated cuts be resurveyed to identify any new cultural resources.

Lynott, Mark J. Trip Report, 6/1/1979 (1979)

During the spring of 1979, Mark Lynott of the MAC visited Wilson's Creek NB to conduct a preconstruction survey for a sewer line associated with the new Visitor Center. A prehistoric site, 23GR250, had previously been identified by Robert Bray in the general vicinity of the sewer line route. Despite an intensive visual check of the area to be impacted, 23GR250 could not be reidentified. Lynott recommended that the construction of the sewer line be delayed until the fall when a more intensive search could be carried out. He recommended that, if construction was to proceed, archeological monitoring should be conducted.

Helm, Carolyn. Construction Monitoring of Archeological Site 23GR250, WCNBP, Greene County, Missouri (1980)

During the excavation of a sewer line to service the new Visitor Center, archeological monitoring was conducted on the portion of the trench that bisected previously located site 23GR250, a prehistoric lithic scatter ninety meters long adjacent to the Short spring site. Trenching activities commenced and monitoring occurred in March 1980.

The pipe trench was dug to a depth of between four and seven feet. The trench was excavated mechanically and the soils likely to bear material culture were placed on one side of the trench, while deeper soils were placed on the other side. Only soils believed to bear material culture were visually surveyed for artifacts. Artifacts were collected in fifty- and one-hundred-foot segments in order to maintain some control over provenience.

Over 200 lithics, mostly flakes and shatter, were recovered from the trenching activities. Several diagnostic artifacts, dating from several periods, were identified. These included Dalton, Big Sandy Notched, Jakie Stemmed, Johnson, contracting stemmed, and large-corner notched points, a drill or perforator, and a uniface scraper. The dates correlating to these diagnostic tools suggest a site use dating to the Early to Middle Archaic periods, and possibly to the subsequent Late Archaic or Early Woodland periods.

Pipe trenching also identified previously unknown prehistoric site 23GR431, "a shallow deposit of lithic materials, most of which are associated with the Early and Middle Archaic periods." The trench bisected 23GR431, and it is believed that only some of the southern portions of the site may be intact. No testing was done to determine the extent of the site. One diagnostic tool, a Stone Square-Stemmed point, was recovered and likely dates to the Middle to Late Archaic period.

Despite the unknown extent of the site, it was presumed that a substantial area of sites 23GR250 and 23GR431 was disturbed by the trenching activities.

Lynott, Mark J., Susan M. Monk, Jeffrey J. Richner, and Therese Ryder-Chevance. Archeological Survey and Testing at WCNB: Tour Road Alternatives A, B and C (1982)

Prior to the construction of the new vehicular Tour Road, archeologists from the MAC were contracted to investigate three proposed routes in Christian County. The primary objective of the archeological survey was to locate, identify, and determine the significance of archeological sites along the routes of the proposed Tour Road alternatives. In addition to this goal, a secondary objective was to expand the knowledge of the history of park property and the site inventory.

The first archeological survey was conducted in August 1981. During this phase, "the survey was undertaken with the knowledge that only one design alternative [A] was under serious consideration." After the identification of several archeological sites, two additional Tour Road routes [B and C] were proposed. The archeological survey was continued in 1982 focusing on the two new alternative routes. In 1981, shovel testing was performed every 20 meters and soil was examined by hand. In 1982, shovel testing was performed every 15 meters and soil was examined by hand.

Three significant sites were identified during the 1981 survey. A scatter of lithic debris between the railroad grade and Wilson's Creek suggested that 23CN79, a site initially recorded in 1975 by Dr. Robert Bray, had been re-identified. Additional transects run at right angles to the original transect line determined the dimensions of the site to be 360 meters north-south and 80 meters east-west. West of Wilson's Creek, 23CN81, a shallow lithic scattering was identified, and 23CN76, the Joseph Sharp House and farm and later Steele House and farm, originally located by Robert Bray, were re-identified. The area containing the site of the Town of Wilson Creek—23GR250—was visually surveyed and a single transect of shovel tests revealed historic artifacts.

During the 1982 archeological survey, one new archeological site, 23CN700, a small lithic scatter, was located immediately west of Wilson's Creek. In addition, an area proposed for a scenic pull-off along the old railroad grade within 23CN250, the site of the Ash Grove Lime and Cement Company within the Town of Wilson Creek, was examined. Although some disturbance was identified, the site was determined to be "potentially significant."

After the initial survey of the three proposed Tour Road routes was completed, a more detailed testing of the identified sites was begun in order to determine their significance. While the number and size of test units varied from site to site and was based on the nature and size of each site, all soils were screened through one-quarter inch wire mesh. A total of four 1-meter-square test units were excavated at 23CN76, the Joseph Sharp House and farm and later Steele House and farm. A small artifact sample was recovered and included typical domestic trash from the mid- to late nineteenth century. Only a few artifacts could tentatively be connected with the Sharp period of occupation and the 1861 historic scene. The site was determined to be "of historical significance because it has the potential to provide conclusive evidence about the location of the 1861 Joseph Sharp farm."

At 23CN81, two 1-meter-square test units were excavated in the area that might be impacted by the Tour Road. A total of forty-four pieces of non-diagnostic shatter, seven flakes, a Harden Barbed point dating to the Early Archaic period, and a retouched point base were recovered. In addition two machine cut nails were recovered. Most of the lithics recovered were white chert. Based on the small site size and the limited amount of material culture recovered, the site was determined to be a seasonal base camp dating to between ca. 8,000 - 5,000 BP. The site was determined to have "the potential to contribute to the understanding of regional prehistory."

Because 23CN79 was the largest site identified during the 1981 survey, it was determined to have an impact on each of the three proposed Tour Road routes. Three 1-meter-square units were excavated along the alignment of alternative A, and two 1-meter-square units were excavated along the alignment of alternatives B and C. The site was found to cover 25,000 square meters and was determined to be reasonably intact, impacted only by historic plowing and bovine grazing. Most of the material culture recovered was white chert flakes and non-diagnostic shatter probably obtained locally. A total of twenty-one tools were recovered. Points dating to the Middle to Late Archaic periods were the only temporally diagnostic artifacts. The large size of the site was attributed to its location on a colluvial bench and its likely intermittent use over the Archaic period. The site was determined to have "the potential to greatly expand our knowledge of material culture, settlement patterns, and human adaptations in the Late Archaic [period]."

No test units were excavated at site 23CR700, a small lithic scatter. Little is known about this site and few diagnostic materials were recovered. Site 23CR700 "is less likely to be determined significant."

No test units were excavated on 23CR250, the site of the Town of Wilson Creek. Excavations performed as part of the original survey determined that the Town of Wilson Creek "is significant because it contains data about life in a pre-World War I company town. ...The short duration of the occupation [between 1905 – 1912] ...will further increase the importance of the site, which in effect represents a relatively pristine time capsule" of early-twentieth-century material culture.

Final recommendations were that Tour Road alternative C would have the least impact upon archeological resources at Wilson's Creek NB. For each alternative route, it was recommended that the scenic pull-off proposed at site 23CR250 be moved to an area immediately south of the Town of Wilson Creek.

Hensley, Tom. Trip Report, Wilson's Creek, November 8 – 9, 1982 (1982)

In early November 1982, Tom Hensley and the staff of the MAC visited Wilson's Creek NB to plan and coordinate the architectural and archeological work to be conducted on the Ray House. During the planning session, archeologists dug a test pit in the expected area of the chimney foundation on the west side of the house. No conclusive evidence for a chimney foundation was found during these limited excavations. An archeological scope of work was to be developed for future projects there.

Monk, Susan M. A Preliminary Report on Survey Reconnaissance and Evaluation of the Phase II section of the proposed Tour Road right-ofway at Wilson's Creek National Battlefield (1983)

In October 1983, an archeological survey and reconnaissance was carried out in the proposed Tour Road corridor.¹⁵ The project goal was to locate and identify all archeological sites that might be impacted by the proposed Tour Road construction, evaluate their spatial and chronological context, and determine the significance and integrity of deposits. Secondary to these goals was an effort to increase the archeological site inventory for Wilson's Creek and supplement the general knowledge of the history of the Park and wider southwestern Missouri region. A total of ten artifact concentrations were identified during the survey investigations. Further investigation of the ten concentrations found that four were potential sites and six were isolated artifacts that warranted "no further investigation."

This document is a draft of the findings of this investigation. The final report (1985) is summarized later within this section.

A final synthesis of the survey results was scheduled to be completed in April 1984. Preliminary recommendations suggested further archeological investigations at 23GR629, 23GR630, 23GR631 and 23GR632. It was also thought that construction of the Tour Road through 23GR245 would adversely affect the site. It was recommended that the proposed route of the Tour Road be moved thirty meters north of its present location to avoid the densest part of the site.

Ray, Jack H. and Susan M. Monk. Archeological Survey of Tree Removal Zones at WICR (1984)

Due to a decision to remove exotic or adventive trees and vegetation—predominantly Osage orange and Eastern redcedar—from four targeted areas, an archeological survey was conducted during November and December 1983. The project goal was to locate and identify archeological resources in the four proposed areas that might be impacted by the use of heavy machinery. In addition, a secondary goal was to contribute to the park site inventory and generally increase the knowledge of the history of Wilson's Creek NB and the larger southwestern Missouri region.

The four areas targeted for tree removal were intensively surveyed using surface collection and shovel test excavation. Each area received different coverage. A total of five sites and eight isolated finds were recorded during the survey phase. In addition, the Edwards Cabin site, 23GR237, was revisited in order to delineate the home site and an adjacent prehistoric site.

Area 1 tested a half-mile strip of land just west of and adjacent to Sharp's cornfield. Two transects spaced five meters apart were placed within the area. Shovel test units every ten meters were excavated on each transect. Within this area, survey results confirmed only five isolated finds, three prehistoric and two historic. In addition, the Sharp/Steele House site, located at the north end of Area 1, was investigated very briefly. Two of the survey transects terminated at this site. General surface collections were made at this site and one artifact was recovered from the last test unit.

Areas 2 and 3 were located in the northwest quadrant of Section 25 in Greene County, between the Missouri-Pacific Railroad right-of-way and the eastern boundary of the park. Within Area 2, five transects located "in the disturbed area on the crest and shoulders of the ridge," were spaced 25 meters apart and contained shovel test units every 25 meters. Four transects, "located below the

¹⁵ It is not known which Tour Road alternative this was, as no designation was given in this 'preliminary' report. The archeologists sampled a 'mown corridor' through the project area.

disturbed area on the ridge slopes," were spaced 15 meters apart and contained shovel test units every 15 meters. A previously unknown prehistoric site, 23GR636, measuring approximately 375 by 400 meters, was identified 200 meters east of Wilson's Creek and 20 meters north of Manley Branch. A total of 30 artifacts were collected from test units and included a Langtry stemmed point dating to the Late Archaic to the Woodland period, a biface fragment, and 27 flakes. Most of the stone recovered was obtained locally from the Burlington chert formation. Based on an analysis of limited material culture, the site most likely served as a temporary field camp and knapping station during the Late Archaic to Woodland periods.

Survey Area 3, located immediately south of Area 2, was subdivided into three distinct sub-zones. Area 3a was shovel tested every 10 meters. Areas 3b and 3c were shovel tested every 15 meters. Within Area 3a, one historic site was identified. A dam site and associated mill and storage structures were located on Manley Branch. A poured concrete dam approximately 1 by 20 meters across Manley Branch, and a dry-laid limestone foundation were located by visual inspection of the area. The dam is inscribed with the initials J.G. and the date November 11, 1938. Low earthen banks upstream from the dam suggest a race and the likely presence of a mill. Shovel test units throughout the site recovered nails and ceramics typical of a late nineteenth to early twentieth century domestic site. Within Area 3b, one site and three isolated finds were located. A natural sinkhole trap, 23GR640, 210 meters west of the park boundary was identified. The sinkhole had a 1-meter-square opening and after descending approximately 3 meters opened into a small, 1-1/2by-2-meter room. No cultural remains were identified, and only a few domestic and wild animal skeletal remains were discovered. Within Area 3c, one prehistoric and one historic site were identified. The prehistoric site 23GR638 was located between Manley Branch to the north and an unnamed intermittent branch 45 meters to the south. The site is approximately 130 x 300 meters and is disturbed by the Manley family cemetery and agricultural plowing in the eastern half. A total of 197 artifacts were collected including one biface, four cobbles, and 181 flakes. All stone artifacts recovered were from the local Burlington chert formation. Analysis of the artifacts suggests that the site may have been a temporary knapping station. The temporal context and cultural affiliation of this site is unknown at present. A historic sandstone quarry site, 23GR639, was located approximately 80 meters southwest of the Manley cemetery. While Burlington limestone deposits are dominant within Greene County, infrequent sandstone deposits do occur. The sandstone quarry was likely utilized by European-American settlers possibly for foundation or chimney blocks.

Survey Area 4, a narrow piece of land measuring approximately 50 by 180 meters, was located west of the Missouri-Pacific Railroad right-of-way near the Ray springhouse. This area was surveyed with transects 10 to 15 meters apart containing shovel test units every 10 to 15 meters. No sites were located within survey Area 4.

The Edwards Cabin site, 23GR237, originally discovered by Robert Bray in 1967, was rediscovered and artifacts were collected from the surface in 5-meter interval transects. Disturbances to the site included plowing, road construction, and limited test excavations. Eighteen prehistoric artifacts were collected including two points, one unidentifiable point base, two bifaces, six biface fragments, one scraper, one sandstone mano fragment, and three flakes. One of the points was an expanding stem Rice side-notched point associated with the Late Woodland period and the second point resembled a Kings Corner Notched point type associated with the Woodland period in general. Most of the stone artifacts recovered were produced from Burlington chert. Analysis of the artifacts suggests that this site may have served as a seasonal field camp and knapping station, most likely occupied in the Middle to Late Woodland period. Minimal historic artifacts were recovered from the surface.

Monk, Susan. Trip Report, December 19, 1984 (1984)

In mid-December 1984, Susan Monk from the MAC visited Wilson's Creek NB to conduct an examination of four separate areas. Visual examinations of the ground surface in the vicinity of the former Edwards Cabin were carried out. No historic remains could be identified. Archeologists marked an area where it was appropriate to place the relocated Patterson log structure (now called the Edwards Cabin). In addition, an attempt was made to locate the historic Wire Road running by this location. Again, no traces or visible evidence for the Wire Road were found on the ground surface. Documentary records had to be consulted to determine an approximate location. A culvert at the Ray House was also to be re-identified. The proposed area for the new culvert was previously examined by the MAC and was approved by Monk. Finally the possible location of the second sinkhole, a shallow depression south of Bloody Hill, was visually examined. No cultural remains were noted on the ground surface. It was suggested, however, that subsurface excavations could likely determine if it was a sinkhole.

Monk, Susan M. Archeological Excavations at Eight Sites in WCNB (1985)

Four previously known sites, 23CN76, 23CN81, 23GR245 and 23GR250, and four additional sites identified by a recent archeological survey, 23GR629, 23GR630, 23GR631 and 23GR632, located in the proposed Tour Road route, were excavated between April and June 1984. The project goal was to collect as much information as possible regarding each site's temporal and spatial context and cultural history. In addition, a new site, 23CN702, was discovered during surveying and testing.

Units excavated were 1 meter square. All soils were screened through quarter-inch mesh. Flotation samples were taken from all levels below the plow zone. Soil samples were taken from each natural and arbitrary level for chemical and particle size analysis.

The Steele/Sharp farm site, 23CN76, was first identified by Robert Bray in 1974. A total of sixty test units were excavated along the Tour Road right-of-way. Nine separate historic features and significant amounts of cultural debris were identified at 23CN76, all of which dated to the late nineteenth through the mid-twentieth century Steele family and subsequent occupation. A significant number of historic artifacts were found, including bottle glass and, in particular, food preserving containers and window glass. Ceramics were dominated by undecorated whiteware which was produced during the mid- to late nineteenth century and is guite common in southern Missouri, but also included colored glaze and transfer print patterns as well as saltglazed stoneware, ironstone, redware, yellowware, Albany and Bristol slip, and porcelain. A substantial amount of nails were recovered with more than 50 percent identified as machine cut and the remainder as screws and wire nails. Faunal remains were dominated by domestic hog but also included cattle, eastern cottontail rabbit, and domestic chicken. An analysis of the historic artifacts does not support evidence of occupation prior to the fourth quarter of the nineteenth century. The prehistoric artifacts recovered included two biface blanks, four biface preforms, one drill, three points, one core fragment, 189 flakes and a significant amount of non-diagnostic shatter. A majority of the stone tools were made of local Burlington chert. One point was an expanding stem, corner notched, typical of mid- to late Woodland period occupation, and a second was a Langtry point dating to the Late Archaic period.

Site 23CN76, a small lithic scatter, was also originally located by Robert Bray in 1974. It is adjacent to and west of 23CN81. A total of forty 1-meter-square units were excavated at this site. Both historic and prehistoric artifacts were recovered during the excavations. Three soil samples were taken for chemical and particle size analysis. The historic artifacts recovered included ceramics, a predominant number of which were whiteware but also included salt-glazed stoneware, and Albany

and Bristol slip decorated wares. Faunal remains were minimal but included domestic hog, cattle, and rat. Container glass was dominated by food storage vessels. A significant amount of flat glass was also recovered. Only sixty-eight nails or nail fragments were recovered, a majority of which were wire. Like 23CN76, the historic assemblage reflects a late nineteenth to mid-twentieth century occupation of the site. The prehistoric artifacts recovered included one point, eleven bifaces, 424 flakes, and a significant amount of non-diagnostic shatter. A majority of the stone tools recovered were of local Burlington chert origin. The temporal context and cultural affiliation of the prehistoric component of the site is unknown at present.

At 23GR629, a total of twenty 1-meter-square units were excavated with thirteen placed directly in the right-of-way of the proposed Tour Road route. Three soil samples were taken for chemical and particle size analysis. Both historic and prehistoric artifacts were recovered from the site. Two wire nails were recovered from the test units. The prehistoric artifacts recovered included 1 retouched flake, 39 flakes, and a significant amount of non-diagnostic shatter. Only one formal 'tool' was recovered. A majority of the stone recovered were of local Burlington chert origin. Based on an analysis of the artifacts, the site is likely a lithic reduction center.

At 23GR630, a total of twenty 1-meter-square units were excavated, eighteen of which were placed within the right-of-way of the proposed Tour Road route. Three soil samples were taken for chemical and particle size analysis. Both historic and prehistoric artifacts were recovered from the site. Three pieces of bottle glass were recovered from the test units. The prehistoric artifacts recovered included 62 flakes and a significant amount of non-diagnostic shatter. Three stone tools were recovered including a biface, one drill and a retouched flake. All stone tools were manufactured from local Burlington chert. Based on an analysis of the artifacts, the site was likely a small seasonal camp.

At 23GR631, a total of ten 1-meter-square units were excavated, eight of which were placed within the right-of-way of the proposed Tour Road route. Three soil samples were taken for chemical and particle size analysis. Only prehistoric artifacts were recovered from the site. The artifacts recovered included 23 flakes and a significant amount of non-diagnostic shatter. One formal stone tool was recovered, a retouched flake made of local Burlington chert. Based on an analysis of the artifacts, the site may have been temporary in nature, used only minimally.

At 23GR632, a total of forty-four 1-meter-square units were excavated within the proposed bridge location and the right-of-way of the proposed Tour Road route. Twenty-five soil samples were taken for chemical and particle size analysis. Both historic and prehistoric artifacts were recovered from the site. The site has been partially impacted throughout by road grading, bulldozing, tree removal, historic agricultural plowing, and the natural erosion of topsoil by runoff on a steep slope leading to a stream. Only the southern portion of the terrace appears to be significantly intact. Historic artifacts recovered were limited and included container glass, nails, barbed wire, and mortar. The quantity and nature of the historic assemblage suggest the site's use as a historic dump. The prehistoric artifacts recovered included 200 flakes and a significant amount of non-diagnostic shatter. Twenty-four diagnostic stone tools were recovered including two points, twelve bifaces, eight retouched flakes, and two drills. Nearly all of the tools were made of local Burlington chert. One of the points, a corner-notched, suggests a Late Archaic to Woodland period occupation. A potentially intact cultural deposit consisting of a charcoal gray silty soil was identified below the plow zone. Three features were identified below the plow zone, a shallow basin filled with gray paleosol, a linear gravel deposit approximately fifteen cm wide, and a layer of limestone slabs, the latter two most likely associated with a historic fenceline. Artifacts were found within and above this level. Despite the natural and cultural impact to the site, an analysis of the artifacts and features

suggest that 23GR632 may have been used repeatedly over a long period of time perhaps reflecting a variety of functions.

Site 23GR250, located adjacent to the Short spring site, was previously identified by Robert Bray in 1966. A total of ten 1-meter-square units were excavated along the proposed Tour Road route. Six soil samples were taken for chemical and particle size analysis. Both historic and prehistoric artifacts were recovered from the site. Historic artifacts included container and flat glass, a wire nail, and numerous metal artifacts including barbed wire and machine parts. The historic artifacts are likely tied to the development and occupation of the Short spring site. The prehistoric artifacts recovered included 2 bifaces, 2 retouched flakes, 58 flakes and a significant amount of non-diagnostic shatter. Only two of the four stone tools recovered were manufactured of local Burlington chert. Based on an analysis of the artifacts, the site may have been a lithic reduction center.

Site 23GR245, located on a point of land between Wilson's Creek and McElhaney Branch, was previously identified by Robert Bray in 1974. A total of seventy-nine 1-meter-square units were excavated outside of and along the proposed Tour Road right-of-way. Six soil samples were taken for chemical and particle size analysis. The site had been severely impacted by historic agricultural plowing. The plow zone was mechanically stripped on both sides of the Tour Road right-of-way. A majority of the artifacts recovered from 23GR245 were found in the plow zone. Diagnostic artifacts were collected from the site using a grid system. Both historic and prehistoric artifacts were recovered from the site. Historic artifacts included ceramics, nails, container and flat glass, metal artifacts, brick, shingles, linoleum, and wallpaper. The quantity and type of historic artifacts suggest a twentieth-century farm site. This data corresponds with evidence that a house once stood at the north end of the site. Two features were identified at the site: a possible rodent burrow, and a historic dump area dating to the twentieth century. The prehistoric artifacts recovered included 38 points, 136 bifaces, 1 scraper, 2 drills, 20 cores, 59 retouched flakes, 1,998 flakes and a significant amount of non-diagnostic shatter. Of the 256 diagnostic stone tools recovered, nearly all were manufactured of local Burlington chert. The 38 points suggest a broad temporal span and range from lanceolate and Dalton types from the Archaic period to triangular, corner-notched and Scallorn types from the Woodland to Mississippian periods. Based on an analysis of the quantity and types of artifacts, the site may have been a large camp or village intermittently occupied from the Archaic through the Mississippian periods.

Subsequent to the evaluation of the eight sites, a few days were spent searching for the location of the Joseph Sharp farm site. Two areas were investigated, one southeast of the Steele farm site, adjacent to the County Road, and a second south and west of the Steele farm site. Shovel testing was performed both east and west of the Steele farm site. Testing in the eastern area located a previously unidentified prehistoric site, 23CN702, about 35 by 40 meters and about 40 meters west of Wilson's Creek. A total of ten 1-meter-square units were excavated within the area defined by the densest concentration of artifacts. Nine soil samples were taken for chemical and particle size analysis. Both historic and prehistoric artifacts were recovered from the site. Only a few historic artifacts were recovered. These were consistent with the occupation of the Steele family farm site from the late nineteenth to the mid-twentieth century. A prehistoric feature, a concentration of burnt limestone, sandstone, and other fire altered rocks was discovered. However, very little charcoal was present. The prehistoric artifacts recovered included 2 points, 8 bifaces, 2 retouched flakes, 170 flakes, and a significant amount of non-diagnostic shatter. The points recovered were a Smith Basal notched dating to the Late Archaic and a basal portion of a Kings corner notched dating to the Woodland period. All of the stone tools recovered were made of local Burlington chert. Based on an analysis of the artifacts, 23GR702 may possibly have been a base camp occupied during the Archaic to Woodland periods.
Monk, Susan M. Archeological Testing at the Ray House, WCNB, Missouri (1985)

In conjunction with the architectural stabilization and restoration of the historic Ray House, archeological testing was proposed to mitigate areas that might be impacted by construction and also to answer specific research questions. The primary goal of this archeological work was to perform subsurface testing in areas adjacent to the existing Ray House foundation. Five research questions directed the excavations. The objectives were to: 1) investigate the east and west fireplace remains; 2) locate a cellar entrance on the east side of the house or under the back porch; 3) examine evidence for a kitchen or fireplace inside the house; 4) evaluate archeological resources in the basement; and 5) locate an appropriate area in the back yard for a septic and water tank which would have minimal impact on archeological resources. However, as a result of 'more immediate management concerns' and time constraints, testing in the house and basement was not performed and excavations along the east wall foundation were not completed during this project.

Archeological investigations at the Ray House were conducted during March 1983. After preliminary documentary research, a walkover survey and metal detector sweep were conducted around the outside of the house. A total of sixteen 1-meter-square units were excavated except under the back porch where units were determined by the location of floor joists. A total of thirtythree shovel tests were performed in the area selected for the water tank. All material was screened through quarter-inch mesh.

No archeological evidence for a fireplace was found on the west side of the house. Adjacent to the east foundation, no cellar entrance was found. However, a 'heavy stone support' for the fireplace was identified. Twenty-four of thirty-three shovel test units confirmed the presence of historic artifacts. In addition, the walkover survey of the land within and outside of the fenced-in portion of the Ray House identified the presence of several concentrations of artifacts, possibly corresponding to the location of historic farm structures. Prehistoric lithics, including a lanceolate point, were identified in the excavation units and in the plow zone directly south and east of the Ray House. The variety of lithics identified suggest a broad period of occupation for the Ray House site. In general, the report concluded that the artifact assemblage recovered was typical of postbellum farm life in southwest Missouri. No artifacts directly associated with the Civil War were recovered.

Monk, Susan M. Archeological Survey and Testing of the Proposed Tour Road, WCNB, Missouri (1985)

Phase II archeological survey and excavation work on the proposed Tour Road route continued in October 1983 on the northern section. The project goal was to locate and identify all archeological sites which might be impacted by the proposed Tour Road construction and to evaluate their spatial and chronological contexts and determine the significance and integrity of deposits. Secondary to these goals was an effort to increase the archeological site inventory for Wilson's Creek and supplement the general knowledge of the history of the park and the wider southwestern Missouri region. A total of ten artifact concentrations were identified during the survey investigations. Further investigation of the ten concentrations found that four were potential sites and six were isolated artifacts that warranted "no further investigation."

The proposed Tour Road route was a 40-meter corridor with shovel test units on transects placed every ten meters. All soil was screened through quarter-inch wire mesh. One prehistoric archeological site, 23GR245, was known to exist in the area of a proposed bridge site where heavy ground disturbance was anticipated. At this site, 1-meter-square units were excavated throughout the entire projected impact area. All soils were screened through quarter-inch wire mesh. Soil samples

were taken from each natural and arbitrary level for chemical and particle size analysis. New sites identified by survey were defined by size and artifact density.

A previously unknown prehistoric site, 23GR629, was identified in the southern extent of the survey area immediately north of, and located in the floodplain of, Skegg's Branch. Non-diagnostic shatter and 18 flakes were recovered from test units. The temporal context and cultural affiliation for this site is unknown at present.

A second previously unknown prehistoric site, 23GR630, was identified northwest of 23GR629, just west of an intermittent stream bed. Non-diagnostic shatter and 5 flakes were recovered from test units. Pending further investigation, it is believed that this site may have served as a seasonal field camp occupied for short periods of time. The temporal context and cultural affiliation of this site is unknown.

A third previously unknown prehistoric site, 23GR631, was identified northwest of Bloody Hill in a wooded area with heavy secondary growth. Non-diagnostic shatter and sixteen flakes were recovered from test units. Pending further investigation, it is believed that this site may have served as a seasonal camp or a knapping station occupied for short periods of time. The temporal context and cultural affiliation of this site is unknown at present.

A previously identified scatter of lithics, 23GR632, adjacent to the park's northern border where it intersects with Wilson's Creek was re-identified and shovel test units were placed to identify the site size and content. Non-diagnostic shatter and thirty-four flakes were recovered from test units. The quantity and quality of material recovered from this site suggests that it may be a substantial habitation site.

Two previously known sites, 23GR245 and 23GR250, were also re-identified during survey work. No further work was done on 23GR250 due to previous investigations. 23GR245, located on a broad floodplain west of Wilson's Creek on the northern edge of the park, had been investigated in 1983 after a plowing of the field identified a dense scatter of artifacts. Diagnostic artifacts suggest a broad period of occupation for the site, from the Archaic to the Mississippian period. Intensive shovel testing and surface collection during the survey phase in this area re-identified the site downslope and closer to Wilson's Creek and artifacts were eventually found along the entire right-of-way of the proposed Tour Road route in this area. The alignment of the Tour Road was then moved thirty feet north to avoid the densest part of the site. A total of fourteen test units were excavated throughout the site and a profile drawing of each was made. The site "represents the largest concentration of recovered prehistoric artifacts within Wilson's Creek Battlefield." Based on an analysis of the material culture recovered, it is believed that 23GR245 may have been a village or base camp with a good possibility of intact cultural features.

After a final mitigation of selected sites in 1984, it was noted that recommendations would be made.

Austin, David and William Martin. Phase I Cultural Resource Survey, Route ZZ, Greene County, Job No. 8-S-ZZ-379. Missouri Highway and Transportation Department, Jefferson City, Missouri (1988)

In March and April 1988, archeologists from the Missouri Highway and Transportation Department surveyed the proposed route for the relocation of Highway ZZ on property owned by Wilson's Creek NB. In addition to frequent isolated artifact finds, the survey located and identified two sites, 23GR680, the remains of the historic Short/McKeel farm, and 23GR685, the Golden Ram site. Shovel testing was carried out in fifty- to one-hundred-foot increments along transect lines. If a shovel test recovered artifacts, more shovel tests were dug every twenty-five feet to determine the extent of the potential site. In areas where it was possible, visual inspection of the ground surface was conducted. All soil was screened by hand.

The historic Short/McKeel farm site, 23GR680, was identified on a hilltop in the southeast quadrant of the northeast quadrant of Section 23, Township 28N, Range 23W. While Bray had identified the location of the E.B. Short site in 1975, the location of the Short/McKeel site had not been previously identified. Shovel tests in the area identified several features including a historic refuse pile, a concrete cistern, and numerous historic artifacts including coal, ceramics, glass and metal.

Wilson's Creek NB authorities reported that prior to the park's acquisition, two structures were standing at the Short/McKeel site, a house and a barn. In 1962, the structures were considered to be 'non-historic,' razed, and subsequently graded to make a parking lot for the temporary Visitor Center. Grading for the parking area may have severely impacted 23GR680. Three trailers were placed in the area including a residence trailer, an information trailer, and a restroom trailer. After the construction of the new Visitor Center and maintenance buildings, the trailers and parking area were removed. Post-1984 water lines placed across the site have also impacted the Short/McKeel barn.

The Golden Ram site, 23GR685, was located on a steep hillslope. Its dimensions were approximately fifty by fifty feet. A total of 3 non-diagnositc artifacts were collected from the site, 2 reduction flakes and 1 utilized flake. It is not known in what period the site may have been occupied.

Previous disturbances in the proposed route for Highway ZZ included the vicinity of the intersection of Farm Road 186 and the current route of Highway ZZ.

Sudderth, W. E. The 1983 Archeological Excavations at the Ray House, WCNB, Missouri (1992)

In December 1983, archeologists from the MAC conducted excavations within rooms three and four of the Ray House in order to assist the ongoing stabilization and restoration efforts. The particular objectives of the excavations were to map the remains of a fireplace, excavate those areas in rooms three and four scheduled to be disturbed by construction, obtain a representative artifact collection from rooms three and four, excavate in front of the original outside doorways of rooms three and four, and investigate the west and north walls of the cellar under rooms one and two.

A 1-meter-square grid was set up in rooms three and four. Six 1-meter-square units, two 1-1/2-meter square units, and one partial unit were excavated in rooms three and four.

Excavations concluded that the fireplace between rooms three and four opened up onto both rooms. Excavations also recovered a substantial number of historic artifacts from the Ray House. An abbreviated list of the artifact categories recovered includes food storage jars, tin cans, ceramic storage vessels, ceramic service ware, iron and steel table utensils, glass beverage and prescription bottles, kitchen related items, furniture related items, toys, marbles, doll fragments, personal and clothing items, faunal remains, brick fragments, plaster, window glass, nails, and roofing material. Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I

Analysis of the artifact distribution revealed that a large percentage of the material culture recovered was found in room three. This depositional patterning suggests two possibilities: that room three may have been used differently than room four; or that rooms three and four of the Ray House may postdate rooms one and two. An earlier and separate construction of rooms one and two might account for the trash disposal pattern of domestic debris outside the rear of room two.

Lynott, Mark J. Trip Report, WCNB, February 11-13, 1993 (1993)

In mid-February 1993, Mark Lynott of the MAC visited Wilson's Creek NB to examine the exposed cellar walls of the Gibson House, which were excavated in 1966 but never backfilled. The cellar walls were noted to be collapsing and several saplings were growing from the cellar floor. A schedule was set to organize a crew to backfill the cellar with clean fill.

Noble, Vergil. Trip Report, November 29 - December 2, 1994 (1994)

In November and December 1994, an archeologist from the MAC traveled to Wilson's Creek NB to conduct a survey of a site identified as the location for a new septic facility.

The site chosen for the new septic facility was located in a former agricultural field and measured approximately 100 by 200 feet. Adjacent to and west of the septic facility area was a previously identified large prehistoric site, 23GR245, the extent of which had not yet been determined. Systematic transect interval shovel testing was performed with shovel tests placed every 15 meters along three transects within the project area. A total of eighteen shovel test pits were excavated.

All test units on the eastern and central transects, a total of twelve, and three of the six test units excavated on the western transect, recovered prehistoric artifacts, predominantly chert flakes from the production of stone tools. This evidence strongly suggested that site 23GR245 did extend west into the proposed septic facility area. However, the artifact distribution processes of plowing and erosion were noted.

In an attempt to identify an adjacent area that did not demonstrate evidence for cultural deposits, the transect lines were extended north and south of the project area. South of the project area, dense cultural material was found, and north of the project area, cultural material was found, albeit in a less dense pattern. Ultimately no area devoid of cultural materials was evident in the immediate vicinity of the project area.

To move the septic facility to the west would have required cutting trees and increased the threat of flooding; moving it to the north would have placed it too close to the Tour Road. Given that only a small portion of site 23GR245 would be impacted and that previous surveys had not identified any subsurface features, and based on a park official's insistence that the proposed location was the preferred one, it was considered "logical to commit to the preferred location in the absence of any reasonable alternative." A final recommendation was not made, although it was suggested that if further controlled testing were conducted in the location, including excavation or mechanical stripping, construction could be done.

Noble, Vergil. Trip Report, September 13 – 15, 1995. Wilson's Creek (1995)

During September 1995, an archeologist from the MAC visited Wilson's Creek NB to monitor the controlled mechanical stripping of an area proposed for the development of a new wastewater treatment plant (septic facility), and noted to be on the western edge of 23GR245, a large prehistoric site.

The plow zone of the project area was mechanically stripped and the backdirt was visually inspected with a shovel; however, no artifact collection was made. No cultural features were identified below the plow zone. It was determined that future construction at the proposed location of the wastewater treatment plant would have no further impact on site 23GR245.

Scott, Douglas D. Buttons and Shot associated with Human Skeletal Remains from Wilson's Creek National Battlefield, Missouri, March 4, 1999 (1999)

Two collections of human skeletal remains presumed to have been gathered from the sinkhole at Wilson's Creek NB in the 1950s and in 1967 by Fleet Kerr were returned to the NPS by Manion's International Auction. Associated with these remains were other artifacts including military and civilian buttons and lead shot. A total of nine buttons were analyzed by Douglas Scott. Five were bone, two four-hole sew through, and three two-hole sew through. Two were brass buttons, one a standard U.S. General Service blouse button ca. 1855 pattern, and one possibly a cloth covered button with its front missing and a brass back. Two were ceramic buttons of the 'Prosser Mold' technique, one a two-hole sew through, and one a four-hole sew through. The buttons were determined to be typical clothing buttons from the nineteenth century. The military button was commonly used throughout the Civil War. It was suggested that the buttons could possibly have come from bodies associated with the sinkhole at Wilson's Creek NB.

Willey, P., Paulette Leach, and Deanna Grimstead. Analysis of Human Bones attributed to the Civil War Battle of Wilson's Creek: The Kerr-Glidewell and Manion's Auction Collections (1999)

Two collections of human skeletal remains, presumed to be gathered from the sinkhole at Wilson's Creek NB in the 1950s by an unidentified local resident, and in 1967 by Fleet Kerr, were returned to the NPS—one by Kerr in 1992, and the other by Manion's International Auction House in 1995. An analysis of the 237 human bones and fragments concluded that the minimum number of individuals represented was six. Many of the bones and bone fragments displayed postmortem exposure such as erosion of the bone surface and fragmentation.

Biological characteristics of the individuals suggested that at least one older adolescent, a young adult, and a middle-aged adult were represented. At least one individual was a female or perhaps a small male or subadult.

Racial characteristics were assessed from dental traits. At least one was probably white, and one was of non-white, possibly Asian or American Indian descent.

Carious lesions on teeth indicated the presence of disease. In addition, perimortem fractures present in the teeth suggested injuries sustained at or about the time of death.

Further analysis of the teeth suggested that some of the individuals consumed a gritty diet or possibly held clay tobacco pipe stems in their mouths. The presence of stained teeth also indicated the consumption of coffee or tobacco use.

The report concluded that the findings were in keeping with a Civil War period military life.

Hayes, David D. Assessment of Damage to the Archeological Resources at the Ray House, WCNB, Republic, Missouri. Buffalo National River, Harrison, AR. (1999)

On March 6, 1999, an unidentified trespasser excavated in the vicinity of the Ray House at Wilson's Creek NB without a permit as required by the Archeological Resources Protection Act of 1979. Three disturbed areas were noted, one near the Ray House in the vicinity of the smokehouse, a second one near the 'garden,' and a third at the base of a tree adjacent to the southwest corner of the Ray House. The disturbed areas were approximately forty-five to fifty centimeters long and fifteen centimeters deep.

On March 11, 1999, an archeologist from the Buffalo National River in Harrison, Arkansas, arrived at Wilson's Creek NB to assess the damage caused by archeological looting. Photographs of the archeological disturbances were taken and the intrusion pattern analyzed. An examination of the artifacts recovered from the suspect found them to be typical domestic refuse, dating from between 1850 and 1920.

On March 17, 1999, the archeologist returned to Wilson's Creek NB to formally excavate the disturbed areas in an attempt to better assess the damage to the Ray House vicinity. Two one by one meter units encompassing the two largest disturbed areas were excavated, photographed, and mapped. The disturbed area at the base of the tree was not excavated.

A damage assessment was determined by assigning an archeological value, a commercial value, and a cost of repair and restoration according to the federal guidelines contained in 43 CFR 7.14.

Scott, Douglas D. Wilson's Creek National Battlefield. Summary of Archeological Resources and Investigation Needs, August 11, 1999 (1999)

In this report prepared for a General Management Plan meeting, the author notes that there are 50 recorded archeological sites within the park, 26 of which are prehistoric and 24 of which are historic. No archeological sites are listed on the National Register and the battlefield itself is not recorded as an archeological site. Archeological reports published between 1966 and 1999 are briefly summarized. In addition, issues regarding the identification, assessment, and protection of archeological sites are recommended and include the need for an assessment and identification of the park's Civil War archeological collections, the need for an assessment and identification of General Sweeny's Museum archeological collections, the need to develop a GIS-based map of Civil War 'archeological finds' and known burial and archeological features and sites, and the need to conduct and develop a park wide archeological inventory which would include the location of all prehistoric and historic resources.

Scott, Douglas D. DRAFT Archeological Overview and Assessment for WCNB, Greene and Christian Counties, Missouri (1999)

The author conducted an overview and assessment of the archeological investigations that have taken place within Wilson's Creek NB since 1966. Collections at local repositories holding artifacts from Wilson's Creek NB are briefly discussed. The author's conclusions are based on the

Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I

fact that a majority of the park's archeological investigations have been mitigation-driven and are not a result of systematic inventory efforts. The report also took into consideration the information obtained from known archeological sites; the varying topography of the land contained within the park; and site distribution information from the larger Springfield plateau. Scott conjectures that more prehistoric sites may be found along valley bottoms and stream terraces. The author notes that a Cultural Sites Inventory has been begun at the MAC. This inventory records each prehistoric and historic site and notes its location and physical limits on U.S.G.S. base maps. The Cultural Sites Inventory would be periodically updated as new sites were identified and evaluated. In addition, a Midwest Region System-wide Archaeological Inventory Program Plan identified Wilson's Creek NB as being in great need of a park-wide archeological inventory. Such an inventory would include: a metal detector survey to locate camps, gun emplacements, and battle lines associated with the August 10, 1861, conflict; the preparation of archeological site forms for the Wire Road and battlefield; the development of an assessment and identification of the park's Civil War archeological collections; the development of an assessment and identification of archeological collections at General Sweeny's Museum; the development of a GIS-based map of Civil War 'archeological finds,' known burial and archeological features and sites; preparation of a GIS base map of land ownership which would help to identify historic buildings and features; and a parkwide archeological inventory which would identify the location and evaluation of all prehistoric and historic resources.

Other Archeological Investigations conducted within Wilson's Creek National Battlefield

From May 1985 through September 1986, Park Ranger and Historian Rick Hatcher supervised the metal detection of targeted areas along the route of the Tour Road prior to its opening to public traffic in September 1986. Areas investigated included the Bloody Hill pull-off and walking trail, the Wire Road between its crossing of Wilson's Creek and its intersection with the Tour Road at Sigel's final position and the Sharp Farm site, the area immediately north of the Edwards Cabin site, and the West Battlefield Overlook pull-off south of the Visitor Center. This authorized artifact recovery was accomplished by park authorities and specially invited experts, or 'VIP's,' and included Mark Daughtrey, Bob Neumann, Dr. Tom Sweeney, and Alan Chilton. No known report was filed for these investigations. However, a file is kept in the Mr. and Mrs. John C. Hulston Civil War Research Library at the park, recording the dates and locations of items recovered. The predominant types of metal artifacts recovered from the authorized searches were munitions and included minié, musket, and canister balls, cartridges, pistol bullets, buckshot, a spur fragment, a button, a pocket knife, a finger ring, and various tools and implements. Surface finds also included ceramics and a projectile point.¹⁶

History of Artifact Collecting at Wilson's Creek National Battlefield

There has been a long history of artifact or 'relic' collecting from the lands contained within Wilson's Creek NB. Soldiers from both sides of the conflict revisited Wilson's Creek in the weeks and months immediately following the battle and in subsequent years. These men picked up military and personal items including human and animal remains as souvenirs of the conflict. One Christian County resident visited the battlefield in February of 1862 and noted that "the ground has been thoroughly searched for bullets and other mementos [sic] of the fight, the balls have been

¹⁶ "Battle Maps and Army Organization," Ms. in vertical subject file, Mr. and Mrs. John C. Hulston Civil War Research Library, Wilson's Creek National Battlefield, Visitor Center, Republic, Missouri (hereinafter referred to as the Wilson's Creek NB Library).

hacked from trees, and I could find nothing to take from the field but two flesh colored stones which I will preserve to remember Wilson Creek and remind me of the martyred Lyon."¹⁷

Local residents also walked the battlefield in subsequent years and picked up ordnance and other personal items as souvenirs. Mrs. Ollie L. Bruton, a daughter of John Ray, recalled that the skull of Lyon's horse was kept at their house and that "persons visiting the battlefield frequently asked for bits of the skull for souvenirs and in like manner many of the relics which were found on the field were given away to sightseers." In 1895 a newspaper correspondent reported that

now and then a cannon ball or the fragment of a bomb shell can be found, though these larger relics of the battle are becoming very scarce, owing to the fact that thousands of people have visited Wilson Creek since the war hunting for relics. All the families living near the battle ground have a collection of relics picked up from year to year. Mr. M. C. McCrosky, who lives just east of the main part of the field sold a cannon ball for \$5 a few days ago to a visitor. Every week during the spring, summer and fall strangers from a distance come to look over the battle ground and hear the story of the fight which the surviving settlers have told a thousand times.

The Steele family, residing in the vicinity of the Joseph D. Sharp farmstead, also collected artifacts from the battlefield. In a visit to the battlefield in 1897, F.E. Herrick described his stay with the Steeles. "In the evening, we were shown a lot of relics of the battle which had been picked up on the field since that time. One very interesting relic which was highly prized by Mrs. Steele was a part of a set of surgeons tools which she picked up on the battlefield the day after the battle. ...Such relics are frequently picked up in the fields."¹⁸

In the years following the conclusion of the war, the battlefield began to draw regular visits from regional residents and visitors to the Springfield area. Annual commemorative reunions of Union and Confederate veterans, beginning in 1878, also drew large public gatherings to the battlefield. These events helped build a minor tourist industry, which, by the early twentieth century, actively encouraged 'relic' collecting. In the 1920s, a resident of the Town of Wilson Creek recalled that as a child, after a rain he would go to Bloody Hill and collect minié balls and canister shot. After filling a 'tobacco sack' full, he would sell them to tourists for twenty-five cents a bag. About twenty-five bags a year were sold.¹⁹ This story was later confirmed in an article that appeared in the Springfield, Missouri, *Democrat–Leader*:

WILSON CREEK RELICS

The Children Gathering up Souvenirs for the Reunion

The children who live on the Wilson Creek battlefield are still hunting for relics of the fight and they now and then find a cannon ball or a fragment of a shell. All of these souvenirs bring a good price about the anniversary of the battle when the people visit the historic ground, and this year the relic market will be better than ever before on account of the monument unveiling and the big crowd of war veterans

 ¹⁷ "Diary of Lyman Gibson Bennett, 23 February, 1862," in *Christian County Historian* 11 (Summer 1988): 14.
¹⁸ "Ray House and Family," Ms. in the vertical subject files, Wilson's Creek NB Library; "Post-Battlefield Visits," Ms. in the vertical subject files, Wilson's Creek NB Library; "The Battle's Anniversary," Springfield Semi-Weekly, August 13, 1895.

¹⁹ Hayward Barnett, "The Town of Wilson's Creek," 7. Ms. on file at the Wilson's Creek NB Library.

who will come to Wilson Creek to look over the ground where they fought so long ago.

Small cannon balls sell as high as \$3. Bullets are too common to have much value.²⁰

By the second quarter of the twentieth century, two significant efforts to have the Battle of Wilson's Creek memorialized by federal and state authorities garnered a large amount of local publicity for the battlefield. In 1928, a bill introduced in Congress to have the Federal Government recognize Wilson's Creek as a National Park initiated a report on the battle and its significance to the Civil War authored by Mr. L.E. Meador. Subsequent to the report, War Department personnel performed a site visit. Later in 1939, a bill was introduced in the Missouri State Legislature authorizing the purchase of the land at Wilson's Creek. These well publicized events led to a renewed public interest in the history of the conflict and the battlefield itself. During the second half of the twentieth century, several organized efforts to define the exact positions of troops and artillery and the locations of skirmishes led to wide-spread metal detecting on the battlefield, particularly in the area of Bloody Hill, and the eventual establishment of personal artifact collections from Wilson's Creek NB.

With the advent of widely available personal metal detecting units by the early 1960s, the archeological resources of Wilson's Creek NB began to be systematically looted. Particularly in the period between the establishment of the park in 1960 and formal monitoring of relic hunters' activities in the late 1960s, looting increased dramatically. In 1967, Bray reported that while conducting the first excavations of the sinkhole, he encountered evidence of recent pits dug by 'relic hunters,' and actually encountered at least two individuals on site. That prominent areas of Wilson's Creek have been impacted by looting is substantiated by the results of a professional archeological survey of the Bloody Hill vicinity. In 1967, Bray conducted a systematic metal detector survey of Bloody Hill in order to establish the position of Confederate and Union troops. His survey found only three items that he could definitely tie to the battle period. Bray attributed the relative lack of evidence to the impact of plowing and the cultivation of fields, and "the generations of collectors who have literally picked the places clean."²¹

Archeological looting of Wilson's Creek NB is a sporadic problem today. In 1999, an individual was found illegally excavating (metal detecting) in an area adjacent to the Ray House.²²

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²⁰ Springfield Leader–Democrat, n.d.

²¹ Bray, 1966 "Inventory and Evaluation," 11-12.

²² David D. Hayes, "Assessment of Damage to the Archaeological Resources at the Ray House, Wilson's Creek National Battlefield, Republic, Missouri" (Harrison, AR: Buffalo National River, National Park Service, 1999), ii.

Local Artifact Repositories and Museums containing collections from Wilson's Creek National Battlefield

Two known professionally curated collections house artifacts from Wilson's Creek NB. The park's own unprovenienced artifact collection is housed at the Wilson's Creek NB Visitor Center. A second collection is maintained at the privately owned General Sweeny's Museum on Highway ZZ just north of Wilson's Creek NB. The unprovenienced collections at General Sweeny's Museum were purchased from the descendants of Trogdon, O'Connor, and Kerr and other individuals and are currently maintained by Dr. Tom Sweeney.²³

A.J. Glidewell, a former resident of the Wilson's Creek area, maintained a substantial personal collection of battlefield artifacts. At the time of his interview in 1965, the NPS was interested in purchasing his collection.²⁴

There was also apparently a mid-twentieth-century museum on the property of Dixie O'Connor in the southeastern quadrant of Section 26. The O'Connor 'Museum' was located in the loft of Mr. O'Connor's barn and it consisted of a collection of rare guns. According to some sources, it did not necessarily contain firearms from Wilson's Creek NB or the Civil War period. Mr. O'Connor eventually sold his gun collection to the Junior Chamber of Commerce in the late 1950s. At least a portion of this collection was subsequently donated to the park.²⁵

Recommendations and Prospects for Future Archeological Finds

As Scott has noted, because the known archeological sites within Wilson's Creek NB were not identified as a result of a systematic survey, the potential for predicting future archeological sites will have to depend upon an assessment of the existing physiographic resources within park boundaries and archeological resources identified within the larger region.²⁶

With the exception of the PaleoIndian period, archeological sites representing the Archaic, Woodland, Mississippian, and historic periods have been found within Wilson's Creek NB. This evidence alone suggests that the Wilson's Creek vicinity has been at least periodically occupied for the past 10,000 years.

Archeological evidence from both Wilson's Creek NB and the larger Springfield Plateau region suggests that prehistoric sites are most frequently found in bottomlands adjacent to creeks, streams, and springs or on terraces overlooking these areas. While a majority of these sites have been identified as temporary 'camps,' or 'processing' centers based on their artifact assemblage, the relatively rich alluvial soils adjacent to these water resources and the likely presence of vegetation supporting a variety of game species makes it difficult to rule out more permanent occupation. To date, however, no long-term habitation sites have been located within Wilson's Creek NB. Terraces

²³ Dr. Tom Sweeney, personal communication, November 29, 1999.

²⁴ Memorandum to Superintendent G.W. Carver, from Management Assistant Robert C. Heyder. Re: Interview with Mr. A.J. Glidewell, May 3, 1965. "Administrative History of WICR #1 and #2," Ms. in the vertical subject files, Wilson's Creek NB Library.

²⁵ Interview with Professor L.E. Meador, Tape No. 2, March 15, 1962, Card 16 of 40. "Interviews," Ms. in vertical subject files, Wilson's Creek NB Library.

²⁶ Scott, "Archeological Overview and Assessment," 25-31.

and ridgetops were also likely frequented by prehistoric peoples. However, these areas would not have provided as extensive a variety of flora and fauna as the bottomlands.²⁷

The alluvial bottomlands and areas adjacent to springs were also chosen for occupation by the first European-American settlers. Because of this, it is probable that a number of prehistoric sites within Wilson's Creek have been adversely impacted by both natural and cultural processes. Periodic flooding and erosion of Wilson's Creek and its tributaries and more than a century of agricultural plowing have likely disturbed original site contexts.

Historic maps, photographs, and census data have documented that the Wilson's Creek vicinity experienced a population expansion during the last quarter of the nineteenth century and the first half of the twentieth century. During the antebellum period, farmsteads were generally located adjacent to or near a convenient spring, a major water resource such as Skegg's Branch or Wilson's Creek, or a major thoroughfare like the Wire Road. After the war this pattern continued, although farmsteads also began to occupy areas made more accessible by new transportation systems such as the railroad and the county highway system, which later followed the Township and Range grid established by the General Land Office.

Historic period farmsteads consisted of primary residences with a considerable number of outbuildings and secondary structures and features. These structures and small-scale features, such as barns, sheds, fences, roads, springhouses, and animal pens, formed concentrated domestic complexes. Most of these historic period farmsteads were dispersed over the larger landscape. The Town of Wilson Creek, which included both industrial structures and residences, was clustered around the Missouri-Pacific Railroad line.

Based on the knowledge of local and regional archeological evidence, it is reasonable to predict that sites ranging from the Archaic to Woodland periods will be found in *all* areas of Wilson's Creek NB. Furthermore, it is likely that prehistoric sites will be found *more frequently* near or adjacent to springs and major water resources such as Skegg's Branch and Wilson's Creek. Historic period sites will also likely be found in *all* areas of Wilson's Creek NB, although the earliest European-American sites will likely be found near or adjacent to springs, water resources, and major thoroughfares.

In order to manage its extensive archeological resources, Wilson's Creek NB must identify and formally locate the extent of its known prehistoric and historic sites. A Cultural Sites Inventory program is currently being implemented for Wilson's Creek NB by the Midwest Archeological Center in Lincoln, Nebraska. This program will briefly describe the cultural historic components of each site, identify their physical limitations, and place them on a U.S.G.S. base map. This baseline resource will also be easily updated.

There is also an urgent management need to perform a park-wide archeological survey that would identify and assess the potential for future archeological sites. This survey would include comprehensive shovel testing to determine the location, type, and temporal and spatial contexts of each site, but should also include metal detecting of targeted areas relating to the period of significance. The knowledge that such a survey would provide could be used to plan and direct future park development and construction. Because it is predicted that park facilities will need to expand due to growth over the next few decades, and that it will likely be necessary to replace and/or repair its current infrastructure, it is imperative that all cultural features be recorded and mitigated prior to future ground disturbing activities.

²⁷ Scott, "Archeological Overview and Assessment," 26-28.

Due to the interpretive goal of restoring park vegetation to its 1861 appearance, prescribed fire has been used in the past, and will take place in the future in selected areas of Wilson's Creek NB. The impact to archeological resources by prescribed fire has been extensively studied. Unfortunately, there is no blanket answer to the questions of whether, or how much, archeological resources will be impacted by prescribed fire. Rather, each situation depends upon the particular contexts of a site, i.e. the depth of features and material culture below ground surface, the types of materials contained within a site, and the intensity, fuel load, and duration of a fire.²⁸

In general, these studies suggest several broad conclusions. On sites where material culture is buried, the impact of prescribed fire will be nonexistent or 'negligible' even for artifacts buried a few centimeters below ground. However, on sites where features and material culture are exposed on the ground surface, the impact of prescribed fire 'will be substantial' but will depend predominantly on the type of material culture.²⁹

The impact to archeological resources exposed on the surface and buried below ground can be controlled to some effect. Reducing the fuel load in the targeted prescribed fire area, and conducting prescribed fire activities in high wind conditions will decrease the intensity (temperature) of the fire and increase the speed with which it moves through the area, thus lowering the probability of adverse impact to archeological resources. In addition, an intensive and systematic surface collection of artifacts can be conducted over the entire area prior to prescribed fire. This will dramatically reduce the adverse impact to all archeological resources.³⁰

The Ozarks Fire Management Office has outlined the minimum and maximum conditions for prescribed fire use at Wilson's Creek NB. Prescribed fire will not be conducted unless wind speed at six feet above the ground is twelve miles per hour or less, when relative humidity is at least 20 percent or greater, when fine fuels are one-quarter inch or less in diameter, and when fuel moisture is at a moderate level. The objective of using prescribed fire at Wilson's Creek is to restore selected vegetation communities, particularly native savanna and prairie areas, to their 1861 appearance. Both wild and cultural fires have been an important historical component to the ecological evolution of native savanna areas. "Savanna vegetation including native grasses and forbs have deep root systems and are adapted to hot, dry summers. ...They can, therefore, survive occasional fires." In order to reduce the number of invasive species in prescribed fire units, burning must be 'hot' or intense to reach the root systems of non-native grasses.³¹

Given the need for effectively controlling prescribed fire and the desire to protect both known and unknown archeological sites, the following recommendations are made. In order to reduce the impact of fire on prehistoric and historic material culture on the ground surface, it is recommended that burning be conducted when wind conditions at six feet above ground surface are close to or at their maximum, approximately ten to twelve miles per hour, when relative humidity conditions are

²⁸ Rodney D. Sayler, Robert W. Seabloom, and Stanley A. Ahler, eds., "Impacts of Prescribed Burning on Archeological and Biological Resources of the Knife River Indian Villages, NHS." Report submitted to the National Park Service and the University of North Dakota, 1989; Melissa A. Connor and Kenneth P. Cannon, "Forest Fires as a site formation process in the Rocky Mountains of Northwestern Wyoming" in *Archaeology in Montana* 32 (1991): 1-14; Paul R. Picha et al., "Effects of Prairie Fire on Selected Artifact Classes" in *Archaeology in Montana* 32 (1991): 15-28.

²⁹ Sayler et al., "Impacts of Prescribed Burning," 54; Picha et al., "Effects of Prairie Fire," 26.

³⁰ Sayler et al., "Impacts of Prescribed Burning," 54; Picha et al., "Effects of Prairie Fire," 26.

³¹ Bobby Bloodworth, Ozarks Fire Management Office, telephone conversation with Dr. Benjamin Ford on May 23, 2002; National Park Service, "Wilson's Creek National Battlefield, Fire Management Plan" (Republic, MO: Wilson's Creek National Battlefield, 1986), 40-41.

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close to or at their minimum, approximately 20 percent, when the fire fuels are less than one-quarter in diameter, and when the fuel moisture is relatively low.³²

³² It is acknowledged that the ideal recommendation for the preservation of surface artifacts may conflict with the overall goals of prescribed burning to restore native vegetation.

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Chapter Four • Summary of Management Issues

CHAPTER FOUR

SUMMARY OF MANAGEMENT ISSUES

Introduction

This chapter summarizes the landscape management issues currently of primary concern to Wilson's Creek National Battlefield (NB). In accordance with the project scope of work, these issues are documented within this chapter to serve as a framework for developing the Cultural Landscape Report (CLR) treatment recommendations. The management issues documented in this chapter are based on discussions between members of the CLR project team and Wilson's Creek NB personnel, and a review of the park's General Management Plan. They will be taken into careful consideration in the development of the CLR treatment recommendations.

Management Issues and Concerns at Wilson's Creek

In May 2000, Wilson's Creek NB personnel, including former Park Superintendent Richard A. Lusardi, Chief of Resource Management Gary Sullivan, and Historian Connie Langum, provided JMA with a list of nine issues currently of primary concern to park management during a conference call. Each of the issues was discussed in detail during the call. The information conveyed during the conference call is recorded below. The issues are not listed in priority order, and many are interrelated.

1) Library Construction

The park was slated to begin construction on an 8,000 square foot building addition to the existing Visitor Center during the year 2000. The need for additional space at the Visitor Center is great. Since 1981, park staff has grown from seven individuals to twenty-one. The need for additional administrative and storage/display space has increased dramatically over the same period. Interpretive and educational functions are also currently hampered due to a lack of space.

Funded in part by the Wilson's Creek NB Foundation, the U.S. Congress, and the National Park Service (NPS), this new structure will provide increased education and research opportunities for scholars, students, school groups, and the general public. The existing 4,000 volume library is expected to grow to 10,000 volumes once the new space is available, and will be the largest Civil War-related facility of its kind associated with the Trans-Mississippi Theater. It will also increase the space available for climate-controlled artifact collection storage, treatment and preservation of artifacts and documents, as well as research, conference, and interpretation activities.

The Visitor Center addition will include a multi-purpose room that will accommodate up to 100 audience seats, and will increase the ability of the park to host multiple functions at one time. Large numbers of school groups currently visit the park, and these numbers are expected to increase as the local population continues to grow. These groups will be better accommodated within the new facility, and conflicts between school groups and other visitors will be diminished once the multi-

purpose room becomes available. The construction of this addition may impact the surrounding cultural landscape, and therefore should be taken into consideration by the CLR.

2) Landscape Restoration

Restoration of the landscape to its 1861 appearance remains one of the most important goals of park management. This goal was first identified in the 1960s, and has been a focus of park planning ever since. One of the most difficult aspects of the restoration program has been control of vegetation and its restoration to its 1861 character and composition. Since the abandonment of agriculture in the mid-twentieth century, woody vegetation, particularly non-indigenous species, has proliferated over much of the site. Today, many of the park's formerly open areas are densely vegetated and some of the battlefield's important views are blocked, rendering interpretation of the battlefield landscape difficult. Vegetation restoration efforts were begun in the 1970s, and continue to this day. However, the extensive maintenance that is often necessary as a follow-up to the removal of woody vegetation and invasive species has sometimes been hampered by funding limitations. The CLR's recommendations for future vegetation restoration activities will include practical long-term maintenance practices to ensure their success.

3) Preservation of Historic Structures

The park is dedicated to protecting and preserving the historic features that survive from the Civil War period, including the Ray House and spring, and various roads and trails. Some buildings located within the park—such as the Edwards Cabin and the McElhaney farm complex—did not exist at the time of the Civil War Battle of Wilson's Creek. The CLR's recommendations can suggest an appropriate approach to managing these resources, and discuss the extent to which they contribute to or detract from interpretation of the battlefield.

The Edwards Cabin is a structure that dates to the 1860s, but was originally built outside current park boundaries. It was built by the same family that owned a similar structure involved in the Battle of Wilson's Creek that is no longer standing. The existing Edwards Cabin was donated to the park by Mr. and Mrs. Roger Patterson and the Greene County Historical Society, and the park contributed funds to move it to Wilson's Creek NB in 1974. The cabin is currently protected beneath plywood and sheet metal and sits in the vicinity of the missing cabin that was utilized as a headquarters by C.S.A. Maj. Gen. Sterling Price during the Battle of Wilson's Creek. The park has considered using the cabin as an interpretive exhibit, including adaptively reusing the interior. Although not original to the site, the Edwards Cabin could possibly support the interpretation of the historic scene and delineate the site of Price's Headquarters. These issues are to be considered as part of the CLR's treatment recommendations.

The McElhaney farm complex buildings, which post-date the Civil War, also present the park with a difficult management decision. While the farm buildings are currently out of the viewshed of primary interpreted areas of the park and provide critical administrative facilities for the park, it may, at some future time, be considered desirable to remove the structures if this portion of the park is integrated into the visitor interpretation program. The CLR will consider this issue as part of the treatment recommendations.

4) Archeological Investigations

Numerous archeological investigations have been conducted at the park over the past forty years. These investigations have primarily responded to proposed construction projects as mitigation and artifact recovery efforts. Despite the apparently rich archeological potential of the site, the park has never been the beneficiary of an archeological inventory, and none of the investigations conducted to date has focused specifically on identifying Civil War-related resources.

The park is currently slated to begin a five-year, 100 percent archeological inventory, with a focus on the Civil War period. The first year will involve planning for the project. Field investigations will be conducted during years two through four. Year five will involve the development of a report documenting the findings of the study.

Park personnel have prepared a map indicating priority areas for the investigation. The map is based on an understanding of the battle, particularly troop movements, troop positions, and combat activities. Features such as a second sinkhole that are known to have been associated with the battle, but that can no longer be located, will also be a focus of field investigations. It is hoped that the information generated by the CLR may inform the investigations. Any findings generated by the inventory prior to completion of the CLR will be integrated into the document.

5) Water Quality – Wilson's Creek

Wilson's Creek has been degraded by the effluent from a City of Springfield wastewater treatment plant located upstream from the park, and by runoff from neighboring farms. During the 1990s, the water quality of the creek began improving due to upgrades in the treatment plant facilities. Fish life is returning to the creek. The park currently monitors the water quality of Wilson's Creek and would like to continue to do so, with a goal of continued improvement. Natural resource management strategies to improve the health of the creek will be considered in developing treatment recommendations as part of the CLR.

6) External Development

Various local development issues have the potential to impact the park. In particular, suburban housing developments associated with the communities of Springfield, Republic, and Battlefield continue to encroach on the park from all sides. Local zoning needs to be closely monitored to determine if perimeter rural residential and farm uses are under commercial and residential development pressure. The park may need to conduct a related lands study or analyze the extent of perimeter lands that are visible from the park to determine all of the potential impacts of growth on the park.

In addition, projected highway improvements, including the expansion of Highway 60 between the park and the town of Republic, are likely to occur within the foreseeable future and may have a direct impact on park approach routes and viewsheds. Plans for the alignment of Highway 60 continue to shift closer and closer to the park as more and more suburban development expands the limits of Republic.

In addition, the park is working with local government agencies, specifically the City of Springfield and Greene County, on a greenway/trail project envisioned as providing a connection between Springfield and Willard. One plan for the system suggests that a portion of the greenway might originate at the Battlefield Mall and include the park as a satellite site on a loop trail. The greenway trail will likely direct more hikers and bicyclists to the park. In general, the CLR will consider the potential impact of external development on park integrity, the visitor experience, and interpretation as part of the treatment recommendations.

7) Recreational Use

In addition to battlefield interpretation, the park is frequently used as a recreational facility by the local community. Walking, jogging, biking, and horseback riding are popular recreational activities at Wilson's Creek NB.

In February 2001, the University of Minnesota Cooperative Park Studies Program at the College of Natural Resources prepared a "Visitor Use Study" for the park. This was the first such study to be prepared for the park. As noted in the report, "Currently, there is very little known about visitor use at Wilson's Creek. Since the battlefield's inception, there has been no data collected concerning visitor demographics, battlefield resources that are significant to visitors, battlefield carrying capacity, or visitor attitudes towards battlefield management. The only information that has been available to managers has been the number of visitors per year and visitor use days...."¹ Data collected during fall 1999 and spring 2000 suggested that half of those surveyed were visiting the park for the first time, and most of the first-time visitors were non-local. A fairly large number of visitors, however, were local residents who returned to the park on a regular basis to partake of the active recreation opportunities. It is to be expected, then, that as the population of the surrounding community continues to grow, so too will recreational use of the park. The park continues to need to reconcile recreational use of the park with its core mission. The CLR will contribute recommendations that mitigate the potential impact of recreation on significant cultural and natural resources.

8) Growth Rate/Parking Ability

The parking capacity of the Visitor Center is not currently a problem, but may become a problem if visitor use continues to grow. The busiest event of the year is typically the anniversary of the battle when the park holds a commemorative ceremony. There is not currently a congestion problem associated with the event, but if it were to become a problem, there are no designated overflow parking areas in the vicinity of the Visitor Center. The CLR will contribute recommendations for accommodating overflow parking, and potential future parking area expansion.

¹ Joanna M. Rosendahl, Jerrilyn L. Thompson, and Dorothy H. Anderson, "Wilson's Creek National Battlefield: 1999-2000 Visitor Use Study" (St. Paul: University of Minnesota, Department of Forest Resources, February 2001), 1.

9) Lack of Staff and Funding to Carry out Mission

The park currently spends 89 percent of its annual funding allocation on personal services, 5 percent on fixed costs associated with administrative and park operations—supplies and materials, utilities—1 percent on other costs, leaving only 5 percent for specific improvement and preservation projects. Implementation of the park's mission is frequently hindered by funding limitations. The park has, for example, experienced difficulties with project-based funding in the past, including follow-up maintenance for restoration efforts. The park may require an increase in base funding to properly effect its mission of scene restoration. The CLR will include treatment recommendations that address the long-term implications of implementation, facilitating the identification of realistic funding needs.

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Chapter Five • Analysis and Evaluation

CHAPTER FIVE

ANALYSIS AND EVALUATION

Statement of Significance

The National Park Service (NPS) has recently completed a General Management Plan (GMP) for Wilson's Creek National Battlefield (NB). In support of the GMP, the following statements were developed by the planning team during meetings held in 1999:

<u>Mission Statement</u>: Wilson's Creek NB provides for public enjoyment and appreciation of one of the first major battles of the Civil War by preserving unimpaired the park's cultural and natural resources and interpreting its historical significance.

<u>Purpose</u>: The purpose of Wilson's Creek NB is to preserve and commemorate the Battle of Wilson's Creek.

Significance: Wilson's Creek NB is significant as the site of the second battle of the Civil War, and the first major battle west of the Mississippi. Wilson's Creek is the site of the death of General Nathaniel Lyon, the first Union General killed in the Civil War. Lyon's death focused national attention on the potential loss of Missouri to the Confederacy. Wilson's Creek retains unusually high integrity relative to other Civil War battlefields.

Wilson's Creek NB was automatically listed on the National Register of Historic Places as part of the National Historic Preservation Act of 1966. National Register nomination documentation was prepared by Thomas Busch of the Midwest Regional Office of the NPS in 1976. Busch's National Register nomination form for the property identifies and describes the battlefield landscape, and evaluates its historic significance in accordance with National Register criteria. The nomination indicates that Wilson's Creek NB is a nationally significant district under Criterion A as the site of the Civil War Battle of Wilson's Creek on August 10, 1861, which had a profound impact on the course of events associated with the Civil War history of Missouri. The areas of significance associated with the battlefield are listed as Communications, Military, and Transportation. The period of significance identified on the form is August 10, 1861.

The nomination points out that more than 17,000 soldiers, of both the Union and Confederate Armies, were involved in the bitter struggle that occurred over an 1800-acre area. As noted in the significance statement above, the battle was the first major, and ultimately largest, engagement west of the Mississippi River, and the site of the first Union officer casualty when Gen. Nathaniel Lyon lost both his life and the battle. It played a critical role within a larger strategic context: although the Union troops were forced to retreat at the end of the battle, they subsequently gained control of the state of Missouri on behalf of the federal government, contributing to a strengthening of the Union position in Kentucky. Confederate control of these two states may have led to a different outcome of the Civil War.

Two aspects of the nomination require clarification. The first involves the geographical area encompassed by the battlefield as compared with that which is covered by the nomination. The second involves the inclusion of a 1928 commemorative marker within the list of contributing battlefield resources.

Regarding the issue of the battlefield's geography and boundaries, there are various sources, including the Civil War Sites Advisory Commission Study maps, and work conducted by NPS historian Ed Bearss, that indicate the battlefield extends beyond current park boundaries. The property boundary identified in the nomination for the battlefield, however, extends only to the existing park boundary. Future revisions to the nomination might include an extension of the property boundary to encompass the entire battlefield, or a note explaining that the boundary was set based on ownership rather than delineation of the battlefield determined in accordance with the guidelines presented in National Register Bulletin 40: *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields*.

The inclusion of the 1928 Lyon Marker within the nomination's list of contributing resources should also be revisited based on the currently identified period of significance. Commemoration is not currently identified as an aspect of the site's significance, nor is a period of significance that recognizes veterans' reunions on site, or the establishment of the Lyon Marker. Development of this Cultural Landscape Report (CLR) has suggested that the park may have significant commemorative associations, and that these should also be considered as part of future revisions to the National Register nomination. Future revisions to the nomination based on commemorative associations would be based on Criterion Consideration F: Commemorative Properties. If commemoration is identified as a significant association, inclusion of the Lyon Marker is entirely appropriate. The potential significance of commemoration at Wilson's Creek is discussed in more detail later in this chapter.

While the primary significance of Wilson's Creek NB is undisputedly linked to its association with the August 10, 1861, Civil War Battle of Wilson's Creek, several individual landscape features located within the park are also individually eligible at the local level for the National Register of Historic Places. These include: 1) the McElhaney farm; 2) the County Road bridge; and 3) two stone field walls. The determination of eligibility forms prepared for these features suggest that the McElhaney farm, County Road bridge, and stone field walls are eligible under Criterion A, with late nineteenth and early twentieth century periods of significance.

Development of this CLR has suggested four additional landscape features with historic associations that may be eligible for the National Register at the state or local level of significance. These include:

- archeological resources spanning the Early Archaic period through the first quarter of the twentieth century;
- the Ray House complex as one of three remaining early settlement dwellings in the Springfield area;
- the Wire Road as an important early transportation route that was associated with troop movements during the Civil War, the route of the Butterfield Overland Stage and Mail, and possibly also served as a segment of the Cherokee "Trail of Tears;" and
- commemoration of the Battle of Wilson's Creek including not only the 1928 Lyon Marker but also the activities and actions of veterans, local residents, the state of Missouri, private

groups and foundations, and the federal government involved in commemorating the battle and protecting the battlefield, with a particular focus on Bloody Hill.

Each of these potential aspects of site significance is discussed in more detail below.

Archeological Resources

Various archeological investigations have been conducted at Wilson's Creek NB over the past forty years. Based on the findings of these investigations, the park is likely eligible for inclusion on the National Register under Criterion D at the state level in the areas of prehistoric and historic archeology for the information which these sites have already yielded and are expected to continue to yield. The park is also potentially significant under Criterion D in the area of military history, although additional archeological investigation of the park's Civil War-related sites is needed to confirm this suggestion. Based on the number and diversity of archeological sites that have been found in surveys conducted over very limited areas, it is reasonable to presume that a substantial number of additional historic and prehistoric sites may be found within the park as part of a comprehensive survey. The potential for these sites to yield important information about history and prehistory is very high. The likely periods of significance associated with the park's archeological potential include: 1) Dalton Period through Early Contact Period, ca. 10,000 BP to 1700 AD; 2) Battle of Wilson's Creek, 1861; and 3) Town of Wilson Creek settlement and establishment, ca. 1905–1928. The parklands may be characterized as containing multiple archeological districts of discontiguous sites.

Dalton Period through Early Contact Period

The previously identified sites attributed to the Dalton through Early Contact periods are currently registered with the state of Missouri and have been given site numbers. One of the more important American Indian sites identified and investigated within the park is 23GR245, located on the northern edge of the park property west of and adjacent to the intersection of Wilson's Creek and the Tour Road. 23GR245 is a site with a long history of occupation dating from the Archaic Period to the Mississippian Period. Diagnostic artifacts recovered included a wide range and variety of chipped and ground stone tools including projectile points, perforators, scrapers, and manos. Site 23GR245 was initially identified in 1983 after a field had been plowed. The site was then reidentified during survey efforts for the Tour Road. 23GR245 received intensive archeological sampling because of proposed bridge and Tour Road construction within this vicinity. More than 4,000 pieces of lithic and 186 diagnostic tools were recovered from this site. It represents the largest concentration of recovered American Indian artifacts within the park boundaries. As a result of the intensive survey, it is proposed that 23GR245 may have been a village or base campsite with a history of repeated occupation over thousands of years.

Battle of Wilson's Creek

The potential archeological resources associated with the Battle of Wilson's Creek have not yet been explored. It is highly likely that a directed comprehensive investigation will yield important information about this significant period.

Town of Wilson Creek

The Town of Wilson Creek was established during the early part of the twentieth century. It was associated with the railroad, and with local industrial activities that benefited from the construction of a rail line through the area. Although there are no surviving aboveground resources associated with the town, subsurface deposits may exist with the potential to yield information about this important local settlement and example of an early-twentieth-century company town, including its industrial activities. Archeological investigation might focus on evidence of former land uses, buildings, and structures including a cannery, lime processing facilities, residences, commercial structures, railroad-related features, and roadways. The period of significance for this site would likely be 1905–1928.

The Wire Road

The Wire Road (also called the Fayetteville or Telegraph Road) was established in the 1830s to connect Springfield, Missouri, with Fayetteville, Arkansas. A trace of a segment of this road, abandoned in the early 1900s, traverses the park. Some portions of the trace have been rehabilitated by the NPS to enhance park interpretation and visitor access, while others have been lost over the years to farming and the construction of later circulation features such as the Missouri-Pacific Railroad line, County Road, and the park's Tour Road. The Wire Road is potentially significant at the local level under National Register Criterion A for its nineteenth-century associations with travel and transportation within southwestern Missouri and adjoining states. The road may have followed a route established earlier by American Indians and/or pioneers traveling west. It provided an important connection between Springfield and Fayetteville, Arkansas, and established a locus for early regional settlement. Starting in 1846, the road became the primary route of transportation for the U.S. Mail between the two towns, and it later was used by the Butterfield Overland Stage and Mail. By 1860, telegraph wires had been strung along the route. The road was an important route of travel for both the Confederate and Union armies prior to and after the Battle of Wilson's Creek. The Wire Road is likely significant in the areas of transportation and communications during the period 1836–1900, after which time the road fell out of regular use.

The Ray House

Constructed ca. 1852, the Ray House is thought to be one of three antebellum farmhouses to survive within the Springfield area. It is representative of early settlement within the region, not only in its siting along the Wire Road, but in its use of local wood and stone and its simple vernacular architecture. As such, the house appears likely to be eligible for the National Register at the local level under Criterion C as the embodiment of distinctive characteristics of a type and period. It would be significant in the area of architecture for the mid-nineteenth century.

Commemoration of the Battle of Wilson's Creek

The Wilson's Creek battlefield has enjoyed a long and varied history of commemoration, ranging from the placement of markers to reunions of veterans accompanied by festivals. Commemoration has also included land conservation with a goal of battlefield protection. The Bloody Hill knoll, which witnessed some of the battle's most intense fighting and the death of General Lyon, also became the primary focus of battlefield commemoration as early as the fall of 1861. Likely significant in the areas of conservation and social history, this commemorative nexus of the

Wilson's Creek battlefield—Bloody Hill—has witnessed efforts by soldiers, veterans, local residents, state officials, and the United States Congress to mark, revere, and identify the symbolic importance of the battlefield and site of General Lyon's death. Under Criterion A, Bloody Hill and its general setting appear significant for their commemorative associations during the period 1861-1960, beginning with the efforts of soldiers to mark the site of General Lyon's death, and ending with the establishment of the site as a national park.

As early as 1861, commemoration of the Battle of Wilson's Creek began at the site of General Lyon's death on Bloody Hill. Soon after the Confederate Army abandoned Wilson's Creek, an informal memorial to General Lyon was established. The memorial consisted of a pile of field stones and river cobbles, many of which were etched with the names of veterans and visitors. There is no information as to who first established the memorial, Union soldiers or regional residents. However, only fifteen months after General Lyon's death, the memorial was locally considered "a sacred spot," and was well on its way to becoming a significant-sized cairn. In December of 1861, a joint resolution was passed by Congress that recognized the heroic efforts of Gen. Nathaniel Lyon and his troops and commemorating the Battle of Wilson's Creek. The resolution recognizing the sacrifice of General Lyon and his men was read to all Federal troops. Wilson's Creek was one of only five battlefields to receive this distinction. In November of 1862, while a part of the Union Army was encamped near Wilson's Creek, an unknown correspondent recorded that "the place is marked by a huge pile of flat stones placed there by soldiers who visit the spot and on which are rudly [sic] carved the name of the one who placed it there."

Veterans began to return to the battlefield after the end of the war. The first reunion of veterans from the Battle of Wilson's Creek was held in Springfield in the early 1880s. Veterans and other visitors met in Springfield to celebrate the unveiling of a monument to General Lyon, and were then transported to the battlefield by train and wagon. Several thousand people were camped at the battlefield when the veterans arrived and "wagons, places of amusements, refreshment stands, etc. were scattered ... over an area of nearly two miles ... A stand ... was erected a few hundred yards from Bloody Hill, on the spot where the patriot Lyon fell amidst the din of battle." In 1897, another major reunion of veterans was held in Springfield, which included a 'pilgrimage' to the Wilson's Creek battlefield. The reunion was described as 'the largest ever,' and several thousand visitors camped at Wilson's Creek the night before.

Two distinct camps were on the field, one where Lyon fought and the other on the Sharp farm, where Sigel lost his guns. Over the battlefield the veterans wandered in search of some familiar landmarks, but time and failing memory left but few features the survivors could recognize ... The rude stone monument piled up where the Union commander died was the chief feature of interest to the visitors. A flag floated over this memorable spot and all day long the crowd stood around the sacred heap of native limestone.

In 1905, the Wilson's Creek National Monument Park Association was chartered to more effectively push for the establishment of a national park at the battlefield. Circa 1928, a granite monument was erected on the site of General Lyon's death on Bloody Hill. The monument replaced the cairn of rocks, which, it is believed, was slowly lost to souvenir hunters. A road, flag, and trail were developed to provide access to the site. Acknowledgement of the significance of the site continued over the course of the first part of the twentieth century. The Wilson's Creek Battlefield Foundation was chartered in 1950 to raise money to purchase 37 acres of Bloody Hill. After acquiring the land, the organization continued to pressure Congress to establish a national park at Wilson's Creek. In 1960, their efforts were rewarded when enabling legislation was passed establishing Wilson's Creek Battlefield National Park.

County Road Bridge

The determination of eligibility form prepared for the County Road bridge states that the structure appears to contribute to the significance of a National Register district under Criterion A because it represents the:

continuum of transportation development of the Wilson's Creek area, and may be one of the oldest truss bridges in the county. The steel truss bridge is situated within a transportation corridor that dates back to at least the 1830s, and perhaps even earlier. The bridge was installed about 1920, along a route that had been in use as early as the 1830s as part of the Telegraph Road....The road was the principal road from St. Louis to the Southwest in the early to mid 19th century, and was critical to both Union and Confederate troops in the Civil War....In 1920, the newlyconstructed steel bridge allowed easier access to the village and to farms on either side of the creek. This was particularly useful for local farmers who could more easily bring produce to the tomato cannery that operated in Wilson's Creek from 1917 to 1922. The bridge and county road continued to serve the local inhabitants after the Town of Wilson Creek ceased to exist by the 1930s.¹

McElhaney Farm

A determination of eligibility form has also been prepared for the McElhaney farm that indicates that this building complex contributes to a National Register district under Criterion A, as representative of the continuum of south central Missouri rural development through the twentieth century. The determination of eligibility notes that

Single family settlement of this area of Missouri had begun in the first decades of the 19th century, with rural population growth peaking about 1890. The McElhaney farm was established two decades after this peak, when state farmstead numbers had begun to decline even as the farms themselves were changing from subsistence to business enterprises dependent on distant markets. The McElhaney farm reflects the impact of these changes on the Wilson's Creek area, and is the last surviving farmstead in park boundaries that was built after the 1861 Wilson's Creek Battle. In addition, although of a different period, its presence contributes to the interpretation of the agrarian development which was extant at the time of the Wilson's Creek 1861 battle.²

Stone Field Walls

A determination of eligibility for two stone field walls within the park suggests that they contribute to a National Register district under Criterion A for their significance as elements that support interpretation of nineteenth and twentieth century agricultural land use within the area.

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¹ National Park Service, "Determination of Eligibility, County Road Bridge," (Omaha: Midwest Regional Office, 1994-95), 2.

² National Park Service, "Determination of Eligibility, McElhaney Farm," (Omaha: Midwest Regional Office, 1994-95), 2.

Period(s) of Significance

The current National Register Nomination for the battlefield indicates August 10, 1861, as the site's period of significance. Preparation of this CLR suggests that the periods of significance associated with the site include the following:

- 1) Archaic through Mississippian Periods: ca. 10,000 BP through 1700 AD;
- 2) Civil War Battle of Wilson's Creek: August 10, 1861; and
- 3) Commemoration of the battle and the death of General Lyon: 1861 1960.

Individually eligible resources likely are associated with the following periods:

- 1) Wire Road: 1836 1900;
- 2) Ray House: 1852;
- 3) McElhaney farm complex: 1911;
- 4) County Road bridge: 1920; and
- 5) Stone field walls: undetermined.

Comparative Analysis of Historic and Existing Conditions by Landscape Characteristic

In order to better understand the relationship between the existing Wilson's Creek NB landscape and its character during the Civil War and commemorative periods of significance, this chapter includes a comparative analysis of historic and existing conditions. The focus of this section is on identifying the broad patterns and specific features associated with the Civil War and commemorative periods, and assessing to what degree they survive today. This comparative analysis also indicates what is known about the date of origin of all extant resources, and identifies known missing features. Lists of features contributing to the periods of significance, and non-contributing, undetermined, and missing features follow this section. The three primary goals in preparing this comparative analysis information are:

- 1) to understand which features, if any, contribute to each period of significance;
- 2) to establish the basis for an integrity evaluation that assesses the degree to which the extant landscape resembles the landscape during the periods of significance; and
- 3) to provide an understanding of the similarities and differences between historic and existing conditions that will support treatment recommendations for the cultural landscape.

The analysis is organized according to the landscape characteristics used in Chapter 3 to present existing conditions documentation information:

- spatial organization;
- responses to natural features and systems;
- land uses and activities;
- circulation patterns and features;
- cultural and natural vegetation;
- buildings, structures, and structural clusters;
- small-scale features;
- utilities; and
- views and viewpoints.

The features that have been identified through archeological investigations are described in Chapter 3; a separate discussion of archeological features is not presented in this section.

Spatial Organization

Generally, the landform, topography, and terrain associated with Wilson's Creek NB retains a character similar to that which existed during the 1861 Battle of Wilson's Creek. On a broad scale, the most dramatic change in spatial organization is due to an increase in woody vegetation. The patterns of open and wooded vegetative cover, and the texture and composition of the associated plant communities, have undergone tremendous change over time. This change has affected the character of the landscape, particularly its visual and physical accessibility.

The origin of the spatial patterns present at Wilson's Creek at the time of the battle is rooted in prehistoric cultural practices. Over thousands of years, American Indian occupants are believed to have set fires on an annual, or relatively frequent, basis to support hunting activities and to enhance visual and physical accessibility. In response to regularly set fires, the vegetation evolved into a matrix of tallgrass prairie and lightly wooded savanna.

During the early to mid-nineteenth century, American Indian groups were forced to move west and out of the area. Cultural use of fire abruptly ceased. Pioneer farmers of European-American descent began to settle the area in the 1840s and soon established open crop fields and pasture over the bottomlands and other areas suitable for agriculture. The remainder of the land—steeply sloped areas, rock outcroppings, and areas of marginal or unproductive soils—was not initially used for agriculture and most likely was in the process of becoming progressively more thicket-like at the time of the Civil War Battle of Wilson's Creek.

In 1861, the landscape was described as open fields and prairie, with broad expanses of savannalike tree cover, particularly atop the knolls. The tree cover associated with savanna-like areas by this time was likely much denser than during the prehistoric period, but not of the thicket-like character that exists today. Elsewhere within the Wilson's Creek landscape, several local residents had established fenced crop fields on the prime agricultural soils located along the margins of Wilson's Creek and the broad plain in the southern portion of the site. The banks and floodplain of the creek were generally clear of woody vegetation. The crop fields and house precincts were enclosed within perimeter fencing composed of wooden rails. Livestock foraged freely over the remainder of the landscape.

After 1861, Bloody Hill appears to have been maintained in open fields over much of its area, with scattered clumps of trees and shrubs becoming more thicket-like over time. During the first part of the twentieth century, agricultural practices changed. The majority of the remaining woodland cover was cleared to establish crop fields and pasture land. Wire fencing was used to enclose pastureland, which was heavily grazed by livestock. Between the 1920s and 1960, the majority of the landscape appears to have been open, with sparse woodland cover occurring along the Wilson's Creek floodplain, steeply sloped and rocky areas, and the tops of some of the knolls.

Since 1960, many former agricultural fields have been left fallow. The loss of soil due to erosion, introduction of exotic or adventive weed species, and the impacts of overgrazing have had a profound effect on the vegetation that arose over the abandoned fields. Impenetrable weedy thickets cover a large area of the park today. Currently, open cover exists only within two fenced fields maintained by local farmers for battlefield interpretive purposes—Sharp's crop field, and Ray's cornfield—and restored prairie areas.

Today, the park includes small areas that replicate historic patterns of spatial organization during the periods of significance. These include the Ray and Sharp fields, the field to the west of the Edwards Cabin, and the prairie restoration areas. Woodland character today hardly approximates the lightly wooded conditions of the nineteenth century. Another aspect of change involves the loss of the many farmsteads and roadways that were present during the Civil War period.

Other post-Civil War landscape changes that have had an impact on patterns of spatial organization include the establishment of the Missouri-Pacific rail line in the eastern portion of the park, a limestone quarry, an associated cement plant, and a residential and commercial community along the eastern bank of Wilson's Creek. While the rail bed of the Missouri-Pacific line survives and constitutes a notable change in the spatial pattern of this portion of the park, development associated with the former Town of Wilson Creek does not survive, and the spatial character associated with the community is no longer evident within the landscape.

Another dramatic change, albeit at a much smaller scale, has been the erosion of stormwater channels due to an increase in overland flow patterns. Formerly negligible depressions and swales that once carried a limited amount of stormwater during spring rains or snow thaws are now being scoured into deeply etched gorges by large volumes of overland flow. Based on evidence observed in the field, this change has occurred during the second half of the twentieth century. The contemporary conditions of the Wilson's Creek bottomlands themselves are a complex of recent sedimentation on the lower terraces combined with a scouring and probable widening of the creek itself.

Responses to Natural Features and Systems

Current evidence of cultural responses to natural features and systems is primarily rooted in the mid- to late-twentieth-century park development period. Many of the features that exhibit a

response to natural features and systems relate directly to visitor use of and access to the battlefield, particularly at the intersections of circulation systems and water resources. Culverts, bridges, and swales that accommodate road and trail crossings of waterways or convey water away from circulation routes post-date 1960. Nonetheless, evidence of nineteenth-century responses to natural systems and features still survives, including the siting of the Ray House on a prominent knoll, the control of spring flow at the Ray springhouse and the Short springbox, and the former locations of crop fields in association with bottomland soils. The evolution of local responses to natural features is described below.

Little is known about the cultural use of the land during prehistoric periods. It can be surmised, however, based on archeological evidence analyzed at nearby sites and the descriptions of travelers during the proto-historic period, that American Indian populations manipulated, to a great degree, vegetative cover throughout the region in support of hunting, travel, and general visibility. Native peoples are likely to have set fire to the ground on an annual basis, which promoted plant communities rich in grasses and forbs, and lightly wooded with oaks and other fire-tolerant species.³ Wilson's Creek and the site's numerous springs were likely utilized as a source of potable water, and the creek likely supplied fish as a food source. Tree cover would have been harvested for fuel to heat dwellings and for cooking.⁴

During the early European-American settlement and pre-Civil War agrarian development periods, the fertile lowlands associated with the margins of Wilson's Creek were the first lands to be farmed. They were cleared of existing vegetative cover to establish crop fields. These settlers are also known to have raised livestock, using the less fertile soils for pastureland. As settlement density increased, occupation of the less fertile upland plateaus began.

Another factor in selecting settlement sites was proximity to fresh water sources, including springs and Wilson's Creek. Early dwellings, including the Ray, Manley, and Short Houses, were sited near strongly flowing springs. Wilson's Creek became the focus of settlement as well as industrial activities during this time. A mill complex and carding factory were established by the Gibson family along the creek, harnessing its water-generated power through the construction of a dam and millrace structure. Views, or a prospect of the surrounding landscape, may have also been an important consideration in the siting of homesteads for many settlers. The ca. 1852 Ray House, for example, sits on an open knoll with commanding views of the surrounding countryside.

The first public road through the area—the Wire Road—crossed Wilson's Creek via a ford. While the majority of the streambed was shallow enough to cross easily, ford sites were based as much on the grade of the creek banks as on the depth of the creek. The Wire Road crossed the creek near the current County Road bridge.

Wood, harvested from local timber, was the preferred building material for residences and fencing during this period. Extensive deposits of limestone exist within the area. These were sometimes quarried for use as a construction material. The Ray springhouse is constructed of locally quarried limestone.

During the Civil War period, local springs and the creek are known to have supplied ample amounts of potable water for soldiers as well as local residents. The landforms associated with the creek

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³ T.C. Blackburn and K. Anderson, *Before the Wilderness: Environmental Management by Native Californians* (Menlo Park, CA: Ballena Press, 1993).

⁴ S. Packard and C.F. Mutel, *The Tallgrass Restoration Handbook for Prairies, Savannas, and Woodlands* (Covelo, CA: Island Press, 1997).

valley and adjacent knolls—particularly Oak Hill, or Bloody Hill as it became known—were critical to the tactics of the Battle of Wilson's Creek. The Bloody Hill knoll, approximately 287 acres in area, was associated with the fiercest and most decisive portion of the battle. The knoll also served as the location for the Union's field hospital, and is the site of a sinkhole that was used as a burial ground for seventy-two Union soldiers just after the battle. A second sinkhole (location currently not known) and a well were also used for the burial of Union soldiers.

After the battle, numerous local stones etched with the names of individuals were piled on Bloody Hill to mark the site of Union General Lyon's death during the Battle of Wilson's Creek. Stones are known to have been placed there by soldiers as early as 1861, and the pile eventually grew to form a large cairn. A rock outcropping on Bloody Hill was also inscribed to commemorate the battle.

For the remainder of the nineteenth century, agriculture remained the dominant land use within the area, and the agricultural practices of local farmers likely took full advantage of soils high in natural fertility and well suited to agriculture to grow crops. The remainder of the land was likely used to pasture livestock. A pond was established to water livestock during this period by damming the outflow of the Gwinn spring (pond no longer extant). Woodland trees likely continued to be harvested as a construction material and as fuel for heating and cooking. Limestone was also likely quarried as a construction material during this period.

During the first part of the twentieth century, a quarry and lime kiln company were established within the battlefield to exploit the site's extensive limestone deposits. The Rogers White Lime Company constructed a railroad spur, brick kiln stack, limestone powder house, and eight or nine frame company houses for its workers as part of the development of this industry. These efforts were short-lived, however.

Other responses to natural features within the battlefield landscape during the first part of the twentieth century include the construction of a bridge crossing of Wilson's Creek as part of a new County Road. Access to the Town of Wilson Creek also involved the construction of circulation features associated with the crossing of the creek—a concrete culvert, a small bridge, and a suspension footbridge.

One of the most dramatic alterations to the site's topographic character occurred through the construction of the Missouri-Pacific Railroad rail line in the early part of the twentieth century. Establishment of the line required extensive grading operations, large volumes of cut and fill, and realignment of roadway intersections.

Later responses to natural features associated with park development include bridges and culvert crossing of waterways associated with visitor tour routes, establishment of well and water treatment facilities to provide for the needs of NPS personnel and visitors, and the management of vegetation to effect the restoration of the 1861 battlefield scene.

The pre-Civil War landscape features that exhibit responses to natural features include the Short springbox and Ray springhouse, the Wilson's Creek ford site, field patterns based on prime agricultural soils and suitability, siting of farmsteads on prominent knolls for views and in association with fresh water sources, quarry sites used to acquire limestone for construction purposes, and wells. These landscape features were present at the time the Battle of Wilson's Creek occurred. Military strategy and troop movements took advantage of local landforms, fresh water sources, and the conditions offered by land cover and vegetation. Landforms, topography, and terrain also survive to depict the events of the battle.

Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I

Post-battle commemoration also occurred within the framework of an active agricultural community. Specific responses to natural resources associated with commemorative activities include a focus on the knoll of Bloody Hill, and the use of local stone to mark the site of General Lyon's death. The 1928 commemorative marker to General Lyon survives atop Bloody Hill, although the rock cairn does not. Other evidence of responses to natural features and systems relates primarily to the park development period.

Land Uses and Activities

Land uses within the park currently relate primarily to protection, preservation, administration, and interpretation of the battlefield by the NPS. These uses differ to a great degree from the vernacular agricultural and industrial activities that characterized the landscape during the Civil War period and the commemorative period. Commemoration of the battlefield that began during the war is a surviving land use, however. Current efforts to interpret historic agricultural practices also perpetuate contributing land uses.

Prehistoric uses of this area were most likely associated with hunting and gathering of food. During the late seventeenth century, the American Indian groups that were present within the region are thought to have included the Missouri and the Osage. The Missouri likely departed the region during the latter part of the eighteenth century, the Osage during the first part of the nineteenth century. Other tribes, relocated to the region from the east, briefly resided in the area during the first third of the nineteenth century. Land uses associated with these later groups likely ranged from seasonal camps, to limited crop production, in addition to hunting and gathering. As mentioned earlier, it is thought that the American Indians typically burned existing vegetative cover throughout the region on an annual basis in support of hunting practices.

Land uses associated with nineteenth-century European-American settlement of the region—circa 1838–61—consisted of agriculture (orchards, garden plots, crop fields, and the pasturing of livestock); residential (John Ray House, Gibson House, Short House, Edwards Cabin, Edgar House, Sharp House, C.B. and T.B. Manley Houses, Gwinn House); industrial (the Gibson Mill/millrace, wool carding factory); service (use of the Ray House as the local post office); cemetery (Edgar family cemetery); transportation (the public Wire Road established between Springfield and Fayetteville); and utilities (establishment of telegraph lines along the road in the early 1860s). Although the railroads were granted a large amount of land in the area during the middle of the nineteenth century, rail lines were not built through the battlefield landscape until the twentieth century.

The Civil War period—1861–65—witnessed a continuation of agriculture, the primary land use established during the historic settlement period. Crop fields, pasture land, orchards, and garden plots were the predominant agricultural activities that characterized the landscape at the time of the battle. The military uses of the landscape prior to and during the 1861 battle served as a brief but intense disruption to the local agricultural production. Many of the soldiers who were killed during the battle were buried on the battlefield. A large number of bodies was later moved to Springfield National Cemetery. Local lore suggests that Confederate dead remain interred along the banks of Wilson's Creek, constituting another possible cemetery land use within the park.

Commemorative uses were established on site prior to the end of the Civil War. The first commemorative activities—the establishment of an informal marker of piled stones at the site where Union Gen. Nathaniel Lyon was killed—grew over the course of the next few decades. Other commemorative uses included veterans' reunions and battle anniversaries held at the site.

Otherwise, during the latter part of the nineteenth century, agriculture remained the dominant land use of the region, in conjunction with the residential, service, transportation, cemetery, and utility land uses established before the Civil War. Industry was abandoned for a time after the Gibson Mill burned in 1881.

After 1905, two important new land uses were established within the area. These included rail transportation with the development of the Missouri-Pacific Railroad, and industry in conjunction with townsite establishment. The Town of Wilson Creek was incorporated after 1905 as a company community associated with the Rogers White Lime Kiln. These new uses co-existed with agriculture, which remained the dominant land use within the area during this period; residential uses; cemetery use of the Edgar and Manley family cemeteries; and utility land uses, including a new water line between a local spring and the new Town of Wilson Creek. Within the town, land uses included industry in the form of a lime quarry and kiln, and a tomato cannery, and commercial/service in the form of a general store, post office, and blacksmith shop. Commemoration of the Civil War Battle of Wilson's Creek continued throughout the period in the form of veterans' reunions, fairs and events held at the site, and local efforts to have the battlefield recognized or acquired by the federal government.

Between 1928 and 1960, agriculture remained the dominant land use. Agriculture during this period became highly mechanized. A large percentage of the landscape was used for pasturing livestock. Residential land uses and battlefield commemoration also continued to be important components of the site. Commemorative activities included the establishment of a granite marker in honor of General Lyon. The industrial, service, commercial, and residential uses associated with the Town of Wilson Creek were abandoned during this period, and the town was disincorporated.

Between 1960 and the present, the site has evolved from a residential and agricultural community to a public park incorporating museum/interpretation, administration, maintenance, recreation, visitor service, educational, scientific study, and commemorative land uses. Formerly established cemetery and utility land uses continue to exist. Although agriculture has been continued on a limited basis through leases, the discontinuation of active agricultural and residential uses has constituted one of the greatest changes to the landscape during the NPS administration period.

Circulation Patterns and Features

Wilson's Creek NB is comprised of a patchwork of circulation systems surviving from various periods of history. These range from early settlement through the later park development period. The sole road that survives from the Civil War period is the Wire Road trace. The majority of the roads indicated on nineteenth century maps and atlases have been abandoned, closed, or removed. Archeological investigations may identify evidence of these routes; however, they are not currently readily apparent. Roads and routes that appear to survive from the commemorative period primarily exist at the perimeter of the park. These include portions of Highway ZZ, Farm Roads 182/Elm Street, and Farm Road 194. The Missouri-Pacific Railroad line was also present within the landscape during the commemorative period. Another prominent road at the time, which followed a portion of the county line, has since been abandoned. Evidence of this road, and another road that followed Skegg's Branch survives to the west of Wilson's Creek. The trail on Bloody Hill that leads to the Lyon Marker may include portions of the trail established during the early twentieth century to provide access to the site for visitors.

Nothing specific is known about travel routes utilized by American Indian populations within the area during the prehistoric periods. However, it is thought that portions of the Wire Road may have been established over former Indian trails.

The Wire Road is the earliest known route, established within the park landscape during the early settlement period. Built in the 1830s, the road connected Springfield, Missouri, with Fayetteville, Arkansas. Many early settlers elected to site their dwellings along this road. Within the battlefield landscape, these included the Sharp House, Ray House, and Edwards Cabin. Just prior to the Civil War, telegraph lines were strung along the road to provide communications connections between southwestern Missouri, northeastern Arkansas, and other parts of the region. The road was also used during the nineteenth century as a mail distribution route for the Butterfield Overland Stage and Mail. During the Civil War, the Wire Road was used by both Confederate and Union troops prior to, during, and after the Battle of Wilson's Creek. A trace of a portion of the Wire Road survives today. It is used as part of the park horse trail system, and as part of the pedestrian interpretive tour route.

Little is known about the other circulation routes that may have been in existence at the time of the Civil War battle. Two maps of the battlefield prepared in 1885 provide important clues about circulation during the second part of the nineteenth century. These maps depict numerous roads, farm, and cart paths. One road—the Little York Road—is mentioned by name in battle accounts. It is said to have provided connections between the Wilson's Creek area and Springfield to the north, specifically passing the E.B. Short farmstead and Bloody Hill to the east. This road is no longer in evidence within the park. Another unidentified road appears on the map running north-south between Sections 23 and 24 and past the Gibson House and Mill complex. This road is also no longer in evidence within the park landscape. Several smaller east-west roads appear to have followed the level ground adjacent to the tributaries of Wilson's Creek, other roads connected the scattered farm houses and fields to each other. Little evidence of these roads survives today.

After the Civil War, and throughout the remainder of the nineteenth century, the Wire Road continued to serve as a major thoroughfare. Its alignment was altered at least once to accommodate local farmers who sought to consolidate their agricultural fields. A new road was constructed during this period to support battlefield commemoration activities. This road followed the northern boundaries of the Glidewell and Manley properties and led to the location on Bloody Hill where General Lyon died. It was used by local residents, veterans, and others who visited the site to commemorate the battle. Little else is known about roads within the park landscape during the latter part of the nineteenth century. Most of the roads that existed at the time have since been lost.

Early-twentieth-century circulation changes at Wilson's Creek appear to have been dramatic. By the time the 1904 plat of Greene County was published, a new system of local roads had been developed to conform to the alignment of section and township lines. The Wire Road appears by this time to have fallen out of use. New roads established by 1904 included current Farm Road 182, a road along the Greene/Christian County line (generally referred to as the County Road); a road, no longer extant, running north/south along the western half of Section 23 and paralleling Skegg's Branch to its north; the road leading to the Bloody Hill commemorative site; and portions of Farm Road 194.

After 1904, two important new circulation routes were established: the gridded street system associated with the Town of Wilson Creek, and the Missouri-Pacific Railroad line. The new roads associated with the Town of Wilson Creek included a primary entrance from the north—a small dirt road that left the Wire Road, ran due south across an intermittent stream, and climbed a steep grade before entering the town—and a second entrance from the west, which crossed Wilson's Creek,
climbed a short hill and entered the town on its southernmost thoroughfare, Siegel (sic) Street. Other named roads established within the town included Marmaduke Avenue, Shelby Avenue, Curtis Avenue, and Lyon Avenue. In 1907, the Missouri-Pacific Railroad constructed a rail line through the area. The grade for the rail line was built atop a large ballast prism in the eastern portion of the park. Eventually, the line included a depot associated with the Town of Wilson Creek.

In 1928, a granite commemorative marker was erected on Bloody Hill to replace the rock cairn. The earlier road leading to the site of General Lyon's death was improved and a wide circular space for parking was added.

By the 1930s, area roads had grown to include Farm Road 111, located on the eastern edge of the battlefield, and Highway ZZ. By 1934 or 1935, the Town of Wilson Creek had been disincorporated and use of its roads was abandoned.

NPS administration of the site after 1960 led to numerous circulation changes. For the first twenty years after the park's establishment, visitors were directed to use existing public roads to tour the battlefield. These existing public roads were improved, and small sections of new roads were constructed to establish a park loop tour route. New parking areas were also established at various interpreted features, as was a walking trail along Bloody Hill, and a maintenance area access road.

During the 1970s, the Missouri-Pacific Railroad line was abandoned, and the rails and ties were removed, although the grade remained. After a rash of vandalism occurred within the park in the 1970s, several public roads leading through the park were closed to night-time traffic. These roads were later closed altogether when a 4.85-mile Tour Road was constructed within the park in 1986. At that time, the original access route leading to Bloody Hill was removed. Concurrently, the park began to develop various trails and overlooks to enhance interpretation of the battlefield. The Wire Road was rehabilitated and incorporated into the pedestrian interpretive trail system. Horseback riding was also accommodated along the Wire Road and other designated trails within the park.

Few circulation features associated with the Civil War and commemorative period survive today. The majority of the roads indicated on mid- to late-nineteenth-century maps and atlases have been abandoned, closed, or removed, and little evidence of them was observed during field investigations conducted as part of this project. The Wire Road trace is likely the sole remaining circulation feature associated with the Civil War period. Similarly, circulation associated with the commemorative period has been lost over time. Highway ZZ and other perimeter public roads are the only features that survive from the early part of the twentieth century.

Cultural and Natural Vegetation

Vegetation is one of the most complex components of the Wilson's Creek NB landscape. The ecological matrix of geology, soils, groundwater conditions, landform orientation and slope, plant and animal species, and cultural practices have led to the establishment of many different vegetation communities. Because of the pervasive nature and extensive history of cultural manipulation, it is difficult to distinguish between "cultural" and "natural" vegetation within the Wilson's Creek landscape. Consequently, the focus of this section will be the documentation of the cultural activities that have had an influence on vegetative composition.

The current status of the vegetation comprising Wilson's Creek NB is the result of years of intensive agriculture, livestock grazing, fire suppression, and park development/site improvement activities. The combination of these factors over the last 170 years or so has resulted in a vegetative

composition that today scarcely resembles the one that existed at the time of settlement, or even at the time of the battle. Chapter 2 (Site Physical History) discusses the landscape vegetation as it appeared during the pre-settlement period, identifying seven general plant communities that characterized the site. There are no plant assemblages remaining today that resemble, to any fundamental degree, the conditions described for that period. Of the seven communities identified—(1) springs, (2) riverbanks, low terraces, and gravel bars, (3) high terraces, (4) mesophytic savannas, (5) cherty savannas, (6) glades, and (7) cultural areas—remnants do survive. Perhaps the best way to articulate the changes that have occurred over recent decades and the context for existing conditions is to describe the conditions of these seven systems and others derived from cultural practices as they exist today.

During the prehistoric period, it is likely that the majority of the Wilson's Creek battlefield landscape was maintained in a predominantly open or savanna-like vegetative cover by American Indian peoples, through deliberate burning on an annual basis. This cultural use of fire to manipulate vegetation for views and to enhance hunting practices and travel may span up to a 10,000-year period, as noted by Doug Ladd in his 1991 paper "Re-examination of the Role of Fire in Missouri Oak Woodlands":

It is possible that Midwestern vegetation, including the myriad of organisms comprising our woodland systems, has since the early Holocene evolved under a regime of frequent, low-intensity fires. In other words, the only vegetational evolution pattern in the region since the inception of the post-glacial period may have included a continuous history of frequent fires. This leads to the conclusion that recent attempts at woodland preservation, which include fire suppression, have created what may be the first prolonged fire-free interval in the history of Missouri's post-glacial woodlands....Such an abrupt change, without precedent in the genesis of our contemporary vegetation, is bound to have wrought major structural and compositional alterations....

Regardless of views about the "naturalness" of various factors that influenced the genesis of contemporary vegetation, regardless of how rich and diverse a mesophytic system may have existed in the region prior to Indian occupation, the vegetational assemblage present immediately prior to settlement is all that remains....

Missouri woodlands, even in more closed canopy situations, may have been largely devoid of understory over large areas, or with only low, frequently top-killed shrubs present. There was often a well-developed graminoid vegetation at ground level, interspersed within which was the rich and diverse assemblage of flowering plants mentioned in some early accounts. Presence of a graminoid matrix does not automatically imply a dense stand of warm-season prairie grasses, although such did occur in grassy oak timbers throughout much of the Ozarks and elsewhere in Missouri. Woodlands on less productive soils may have been dominated by sedges and smaller grasses....Fires in these fuels would have been far less intense than fires in tall grass prairies. With frequent burn cycles, these fires would have occurred in low fuel loads with relatively fast rates of spread, short residence times, and patchy burn coverage, permitting survival of many trees.⁵

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⁵ Douglas Ladd, "Re-Examination of the Role of Fire in Missouri Oak Woodlands," reprinted from *Proceedings of the Oak Woods Management Workshop* (Charleston, IL: Eastern Illinois University, 1991), 76-77.

Pre-European-American settlement vegetation was quite diverse, the vascular plants probably numbering no fewer than 500 species and the cryptogams (including mosses, ferns, algae, and fungi) probably no fewer than 250. This diversity of plants would have provided an incalculable complex of substrates suitable for unknown numbers of fungi, pollinators, and other food chain elements. The species sorted into a wide variety of plant communities that were disposed according to slope aspect, underlying surface geology, and cultural land uses, including Indian-set landscape fire.

Over thousands of years, the cultural practices of local inhabitants and seasonal visitors have had a powerful influence on the physiognomy and species composition of the landscape of the area. The existing vegetation community composition is the legacy of post-European-American settlement land uses, which are markedly different in their value systems from those effected by pre-1830s inhabitants.

Since virtually all of the resources that prehistoric inhabitants depended upon came from the land in their immediate surroundings, it was necessary for them to sustain the landscape in ways that maximized the availability of resources, particularly the diversity of plant and animal life. Local plants and animals provided food, clothing, tools, medicines, and ceremonial accoutrements. Their management of the land, which included burning, harvesting, and hunting, was culturally geared to sustain, in a dynamically stable state, the habitat necessary to foster these plant and animal species. Even brief periods of resource mismanagement could jeopardize the livelihood of the inhabitants, leading to debility, starvation, or intertribal war over resources.

There is little evidence of chronic intertribal war within this region; indigenous peoples were likely well rooted to this place, at least in a limited nomadic sense. The remnant biota and early descriptions of the region point to a long-term relationship with the landscape that supported native plants and animals and consequently benefited the people who depended upon them. It is to this kind of cultural relationship that the native biota of Wilson's Creek are adapted. Since plants and animals grow in habitats to which they are adapted, it follows that they change in proportion to the degree to which the habitat is changed.

Fire appears to have been an important tool available to prehistoric inhabitants for land management. Fires were likely set on a regular basis. Because of this, vegetative fuel loads would have remained light, and the fires would have quickly exhausted themselves. Any available dead wood would also likely have been quickly utilized for fuel and would not have amassed over time. The use of fire would have been more effective on long, level expanses of landform, and less effective over steeply undulating and rocky areas. The steeper slopes and rocky areas may have thus developed a more wooded character than level areas.

The vegetative composition would also have been integrally linked to the area's fauna. The grazing populations that roamed the region—bison, for example—were an important food source for the American Indians. They were also well suited to the grass cover maintained by annual burning, and were an important vehicle for seed dispersal. The grazing populations also affected the ecology of the soils and associated plant communities by contributing to their nutrient compositions, and by selectively grazing on preferred species. The life cycles of these vegetation communities were also dependent on insect pollinators, which served in turn as a food source for birds and other animals.

During the proto-historic period, various changes in cultural practices began to have a profound effect on vegetation. The Osage Indians who occupied the region at the time of European-American contact were displaced and relocated to the west during the first quarter of the nineteenth century. Annual burning of the land likely ceased at that time. By the time the earliest European-American

settlers arrived at Wilson's Creek in the 1830s and 1840s, woody growth and undergrowth had likely increased, rendering the woodlands denser and more extensive.

After the removal of the native people and settlement by another cultural group, the habitat appears to have changed markedly. Cultural dependence on the native biota changed rapidly after the arrival of European-American settlers. Historic period settlers increasingly looked to other regions and districts for resources. Fires were no longer purposefully set, and hunting methods changed dramatically. With these settlers arrived new varieties of flora and fauna that were adapted to short-term, ephemeral habitats and revolved around regularly tilled or compacted soils.

In the 1830s–1850s, settlers established crop fields and pastureland over much of the low-lying terrain associated with the Wilson's Creek valley. Large fenced fields were established on the Sharp, Gibson, and Ray properties, where corn and grains were grown. Livestock likely roamed much of the surrounding area and were allowed to graze freely. Woodland areas were used to generate firewood and construction materials, and were foraged by livestock.

During the Civil War, soldiers from both the Union and Confederate Armies describe the landscape as a patchwork of open agricultural fields, brushy or densely wooded hills and knolls, and savannalike open woodlands. The Sharp crop field served as a campground for the Confederate forces prior to the battle. Ray's cornfield was also a component of the Civil War battle, and much of the fierce fighting appears to have occurred within its confines. The events associated with the battle are known to have devastated the local vegetation and agricultural fields.

After the Civil War, agriculture remained the predominant land use within the region. Post-war changes in farming practices, particularly during the twentieth century, significantly altered the vegetative composition, and likely the ecology of the region. The agricultural practices that were adopted during this period include an increase in the pasturing of livestock, introduction of hog farming, and a shift from free-range grazing to fenced grazing areas. It is believed that agricultural land uses became so pervasive throughout the region after the Civil War that there are no intact ecosystem remnants from the pre- or early European-American settlement periods on the Springfield Plateau today.

While these transformations have been occurring since settlement, they accelerated between 1865 and 1945, and have again increased since World War II. After World War II, herbicides, pesticides, and the on-going loss of habitat diminished or depleted much of the pollinator/food chain system. Today, measurable changes in soil loss and drainage channel form can be observed from year to year. Dissections in the terrain that once took millions of years to develop are occurring in equivalent magnitude in decades.

Existing vegetative conditions are not undergoing a process of succession. Instead, contemporary land-use choices have been resulting in a progressive loss of amenity and resource. With each passing year the remediation and restoration approaches become progressively more expensive and more intractable. A significant proportion of hydrologic disruption is the result of land use outside the park boundary upstream from the site. This issue is of critical importance to the vegetation at Wilson's Creek.

Since the 1960s, agricultural practices have waned or been discontinued over much of the park. The NPS has been engaged in various efforts to reintroduce tallgrass prairie over large expanses of the park for over thirty years. In 1981, the park's Resource Management Plan identified the need to conduct active management practices where prairie restoration was to be implemented. The four steps listed in the document to effect the restoration are: "1) eradicate existing, non-native plant

species in the fields; 2) cultivate the land and prepare the seed bed; 3) reestablish the fields with native prairie; and 4) provide for long-term management." These steps were to be conducted on all old farm fields until all were under native prairie management.

In 1986, the NPS commissioned a study titled: "Wilson's Creek NB; A Plan for the Restoration of the Historic Vegetation," from the Missouri Department of Conservation. The study suggested that restoring the battlefield to 1861 conditions would closely replicate pre-settlement vegetation patterns, and that to this end, an understanding of prairie restoration and timber management would be required. "Whenever possible, the current vegetation will be used in the restoration effort. However, in many areas of the battlefield the current vegetation bears no resemblance to the historic vegetation and complete restoration of the site will be necessary." The study suggested that a concerted commitment to long-term management, including the use of herbicides and fire, and monitoring of progress, would be necessary to achieve success. The study included management prescriptions for the various plant communities identified in the study.

During the remainder of the 1980s and early 1990s, the park worked to implement the plan, removing exotic or adventive species such as musk thistle (*Carduus nutans*), brome grass (*Bromus japonicus, B. tectorum*), Eastern redcedar (*Juniperus virginiana*), and Osage orange (*Maclura pomifera*); seeding native grass fields; undertaking prescribed fire; and treating exotic or adventive species with herbicide. Since the late 1980s, large areas of the battlefield, principally former cornfields, have been seeded with warm season native grasses. These grasses have been successful in limiting soil erosion, and have helped to maintain approximately 300 acres of the battlefield in open vegetative cover to facilitate interpretation. Other sections of the park are maintained as open agricultural fields, primarily as hayed fescue fields, through lease programs. Seeding programs were temporarily suspended after 1994. The use of prescribed fire continues to occur, however.

Buildings, Structures, and Structural Clusters

The only buildings and structures that survive from the Civil War period include the Ray House and springhouse, and possibly the Short springbox. There are no buildings that survive with associations to the commemorative period landscape of Bloody Hill.

Little or nothing is known about buildings or structures that may have existed within the Wilson's Creek landscape prior to early settlement of the region by individuals of European descent.

During the early European-American settlement period of the 1830s and 1840s, several homesteads were established within the park landscape, only one of which—the Ray House—survives. The majority of these were residences and associated outbuildings that related to agricultural use of the land. The homesteads that are thought to have included buildings by the Civil War period include: the Ray, C.B. Manley, Sharp, Edwards, Gwinn, Gibson, Short, T.B. Manley, and Edgar family properties. Industrial uses were also represented during this period in the Gibson property which included a millrace, mill, and wool carding factory by the Civil War. Little is known about the character of the Gibson House, Mill, or wool carding factory, the C.B. Manley or T.B. Manley Houses, the Short House, or the Sharp House and outbuildings, none of which survive.

The sole building located within the park that survives from the Civil War period is the Ray House, constructed in 1852. Continuously occupied since the 1850s, the structure was likely altered by subsequent residents to accommodate evolving needs. The structure is known to have been altered slightly during the first part of the twentieth century, through enclosure of a section of the back porch to form a pantry, the removal of three fireplace openings, the reconstruction of a cellar

entryway, and a few interior modifications. The house was acquired for inclusion within Wilson's Creek NB in the 1960s. The NPS subsequently rehabilitated the dwelling based upon a Historic Structures Report prepared in 1968 by architect Charles S. Pope. These renovations included replacement of the window sashes and glass panels in 1968; reshingling of the roof using wood shakes; and replacement of the front porch joists and floor boards. Later, in 1970, the fireplace was stabilized and re-chinked, and the exterior walls were sprayed with penta. In 1972, the southern kitchen floor sill was jacked up and re-braced. The back porch joist and floor boards were replaced in 1974. A new door was built for the cellar entrance, and rock braces were placed under the porch pantry. A photoelectric beam detector was installed to detect intruders. In 1975, the exterior walls were again treated with penta. The Ray House is a contributing feature of the battlefield landscape that survives from the period of significance with a high degree of integrity. It is also a critical component of battlefield interpretation. The house is likely significant in its own right as a rare local example of early settlement vernacular architecture.

The Ray House is also associated with use of the Wire Road for U.S. mail delivery. During the period of 1856-66 John A. Ray was postmaster of the Wilson's Creek Post Office. He maintained the service in the east front room of the house. The Concord Stages of the Butterfield Overland Mail were routed by the Ray House during the years of 1858-61. The coaches would stop once a week to drop off and pick up mail.⁶

The front porch of the house provided John Ray with a grand view of the fighting on Bloody Hill during the 1861 battle, but was far enough removed from the activity that it suffered no damage.

Following the battle, the house became a refuge and served as a Confederate field hospital. Following his death in the battle, Union Gen. Nathaniel Lyon was laid out in the east front room thereafter known as the Lyon Room. The body was later escorted through the lines and turned over to the Federal command in Springfield late in the afternoon of the battle.⁷

The Ray springhouse structure is also considered to survive from the Civil War period, and may have been constructed around the same time as the Ray House. It does not, however, appear on historic maps of the battlefield dating from 1885. The original structure is thought to have been altered through construction of an addition around 1900. Additions thought to have post-dated the Civil War period were removed during rehabilitation of the structure in the 1980s. This structure appears to be a contributing feature that survives from the Civil War period of significance. The Short springbox, a small stone structure that encompasses a flowing spring in the northern portion of the park near the Tour Road may also survive from the Civil War period.

The third structure thought to survive from the Civil War period, although not in its current location, is the wooden Edwards Cabin. The relocated cabin is currently encased within plywood and a tin roof to slow deterioration, and remains on piers near the site of a missing historic cabin that was owned by the Edwards family. It is used for interpretation of the battle. The cabin was moved to the park in the 1970s and the structure is not a contributing feature of the battlefield landscape. It was, however, apparently constructed by the same Edwards family that owned a cabin within the park at the time of the battle. The former Edwards Cabin played a key role in the Battle of Wilson's Creek, serving as C.S.A. General Price's headquarters. A photograph of the historic Edwards Cabin is included within Chapter 2 of this CLR.

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⁶ National Park Service, "Historic Structures Report, Part I on Ray House, Wilson's Creek Battlefield National Park, Republic, Missouri" (Omaha: Office of Archeology and Historic Preservation, 1981).

⁷ Charles S. Pope, "Historic Structures Report, Part II Architectural Data Section on Ray House, Wilson's Creek Battlefield National Park," (Omaha: prepared for National Park Service, Midwest Regional Office, April 1968).

Between 1865 and 1905, the Ray and Manley Houses that had existed at the time of the Civil War survived. New houses were constructed during this period along the Wire Road, Farm Road 182, and Highway ZZ. These included the Russell, two Edgar family, Short, Robertson, Glidewell, and McCrosky Houses. Another residence for which the owner remains unidentified appears to have been located along the Wire Road by 1905. The Gibson Mill appears to have burned during this period. Only the Ray House and springhouse survive from this period.

Between 1905 and 1928, numerous additional buildings and structures were constructed within the Wilson's Creek battlefield landscape. These were primarily associated with residential and agricultural land uses, although the Town of Wilson Creek that was established during this period included industrial structures. The numerous buildings and structures in the Town of Wilson Creek no longer exist. Today, the McElhaney farm complex is the only surviving example of the development that characterized this period. The primary features of the complex were built in 1911. They include the farmhouse, barn, root cellar, smokehouse, and a cistern. This complex has been little altered since its construction. Structures built during this period that survive include the County Road bridge over Wilson's Creek in 1920. This bridge has been minimally altered since its construction.

After 1960, many of the existing buildings and structures located within the park boundary were removed to support restoration of the historic Civil War scene. New construction included an interpretive shelter on Bloody Hill in the 1960s, and a temporary visitor contact station/administrative office complex and maintenance area to the east of Highway ZZ by the 1970s. The McElhaney House was rehabilitated as park personnel quarters. In the early 1980s, a Visitor Center was constructed off Farm Road 182. The maintenance area remained to the east of Highway ZZ, and the McElhaney House continued to be utilized for park needs such as administrative offices. The Bloody Hill shelter was removed once the Tour Road was established in 1986. As noted earlier, the Edwards Cabin was moved to the park in the 1970s, and to its current location during the middle part of the 1980s.

The sole structures surviving from the Civil War period include the Ray House and springhouse. The McElhaney farm complex, which dates from 1911, is potentially significant in its own right, as is the County Road bridge, constructed in 1920. The remaining buildings and structures currently located within Wilson's Creek NB are associated with mid- to late-twentieth-century park development. These include footbridges, wastewater treatment facilities, and the Ray House storage structure.

Small-scale Features

There are no small-scale features surviving from the Civil War period of significance, and the only small-scale features that survive from the commemorative period include the etched stone located atop Bloody Hill and the Lyon Marker.

Nothing is currently known about any small-scale features that may have been associated with prehistoric cultural uses or activities. It is likely that wooden worm fencing was a component of the early settlement landscape, and that this fencing was utilized to fence kitchen garden and other crop fields from roaming livestock, or to form pens for animals around outbuildings. These fences were likely constructed of stacked rails. Other small-scale features associated with the early settlement period include headstones marking grave sites at the Edgar and Manley family cemeteries. It is not currently known if any existing stones survive from 1861 or earlier. Little else is known about the

types of small-scale features that might have existed within the landscape prior to or during the Civil War period.

The Lyon Marker established in 1928 survives from the commemorative period. It replaced a rock cairn dating from the 1860s that was slowly lost to visitors who removed the stones as souvenirs. Other features known to have been associated with the commemorative developments on Bloody Hill, such as a flagpole, are no longer extant.

Although their dates of origin have not been determined, there are four or five stone field fences located within the park that contribute to the site's agricultural heritage. These fences are found in a few locations around the park, although many are difficult to discern within the thickets of vegetation that blanket much of the site. Their periods of origin are not currently known, and their status as contributing resources cannot currently be determined.

The majority of extant small-scale features are associated with mid- to late-twentieth-century park development. These include signs, interpretive waysides, site furnishings, hitching posts, park perimeter fencing, worm fencing to replicate historic field enclosures, replica cannon, gates, picnic tables, dumpsters, gas pumps, propane tanks, flagpoles, and fire hydrants.

Views and Viewpoints

Little is known about the availability or importance of views during prehistoric periods. It can be surmised, however, that the cultural use of fire maintained much of the landscape in open cover, facilitating views for hunting and for protection against attack. The knolls within the park afford long, commanding views of the surrounding landscape when clear of vegetation. The potential to view the surrounding landscape may have been an important consideration in the establishment of occupation sites during the prehistoric and early historic periods.

During early European-American settlement, house sites generally occupied knolls. The Ray House, for example, was sited on an elevated knoll in the northeastern portion of the battlefield landscape that commanded panoramic views of the surrounding landscape. Little else is known about important views during this period.

During the Civil War Battle of Wilson's Creek, views were a critical component of the tactics of the military commanders. For example, views from Bloody Hill were important to the siting of the Union artillery there. The Pulaski Battery was located on a low knoll to the east of Wilson's Creek to take advantage of the site's proximity and visual access to the Union artillery located atop Bloody Hill. Other aspects of the battle relied on the open nature of the Sharp and Ray farm fields, and the fields to the east of the Edwards Cabin.

Little is known about the importance of views within the Wilson's Creek battlefield landscape during the post-Civil War period. It is likely that views from Bloody Hill were a desirable component of commemorative activities and events held there after the war.

As part of park interpretation of the battlefield, views have been maintained at the East and West Battlefield Overlooks, at the Ray House precinct, and in association with various interpretive waysides that have been sited to take advantage of expansive views across the battlefield toward important landscape features. None of the views currently afforded within the park sufficiently approximates the views available during the Civil War and commemorative periods, and there are therefore no extant contributing views.

Identification of Contributing, Non-contributing, and Missing Resources

Contributing resources are those landscape features that survive from the periods of significance. Contributing resources associated with the Civil War and commemorative periods are identified below, as are the features that possess significant historic associations in their own right. Features known to be missing from the two periods of significance are listed subsequently. These are followed by a list of non-contributing features. Contributing resources are mapped on *figure 88*.

Contributing Resources

Battle of Wilson's Creek

Spatial Organization

- Sharp's crop field
- Ray's cornfield

Natural resources, responses to natural resources

- Wilson's Creek
- Skegg's or Schuyler Branch
- McElhaney Spring Branch or Creek
- Manley Branch
- Short's Branch
- six springs
- Bloody Hill
- knoll used to site artillery associated with the Pulaski Battery
- sinkholes used for burials
- well used for burials

Land uses and activities

- agriculture interpreted in the Ray and Sharp fields
- cemetery

Circulation

• Wire or Telegraph Road

Buildings and structures

- Ray House
- Ray springhouse
- Short springbox

Vegetation

• witness trees, including chinkapin oaks associated with glade communities; limited numbers of individual trees along Wilson's Creek corridor and scattered elsewhere around the park. Individual specimens are now much different in character than at the time of the battle.

Small-scale features

• Edgar cemetery, possible headstones

Commemorative Period

- Lyon Marker
- etched stone on Bloody Hill
- Bloody Hill landform
- Missouri-Pacific Railroad grade
- portions of interpretive trail leading to marker
- portions of Highway ZZ
- portions of Farm Roads 194, 182

Features Potentially Individually Significant

- McElhaney farm complex
- County Road bridge
- two stone field fences

Non-contributing Resources

- recreation, administration, maintenance, interpretation, visitor services, scientific study land uses
- Tour Road, associated parking pull-offs, horse trailer parking, culverts, swales, and bridges
- Farm Road 111
- Wilson Road
- interpretive trails, footbridges, overlooks, waysides
- current vegetation compositions associated with limestone glades, old fields and former pastures, riparian woods, agricultural fields, and cultural areas
- Visitor Center complex
- maintenance area complex
- water storage structure at Ray House
- existing Edwards Cabin
- stone retaining wall at bridge along trail between Wire Road and East Battlefield Overlook
- culvert associated with railbed crossing of Manley Branch
- park perimeter fencing
- worm fencing
- chain link fencing
- signage
- gates
- replica cannon
- propane tanks
- fire hydrants
- overhead transmission line
- overhead electrical lines
- wells

Missing Features Associated with Periods of Significance

- The Gibson House, Mill, millrace, wool carding factory, and fields enclosed by wooden worm fencing
- Sharp farmstead, including house and outbuildings, site of Union Colonel Sigel's most advanced position
- E.B. Short farmstead house, outbuildings
- Ray orchard
- Gwinn House and orchard
- original Edwards Cabin
- T.B. Manley House and spring
- C.B. Manley House and spring
- original worm fencing associated with Manley, Ray, Short, and Gwinn properties
- crop fields and pasture at the Ray and Sharp farms
- all roads appearing on historic battlefield maps except the Wire Road
- telegraph line poles and wires
- open savanna, glade, and remnant prairie vegetation communities
- rock cairn, and associated Bloody Hill commemorative developments, including access road, turnaround, flagpole

Features with Undetermined Period of Origin

- Manley family cemetery
- stone fences other than two visible from Tour Road
- stone wall at Ray House
- two caves

Integrity Assessment

The assessment of a landscape's integrity is based on an evaluation of the existence and condition of physical features dating from a property's period or periods of significance, taking into consideration the degree to which the individual qualities of integrity are present. The seven qualities of integrity assessed in accordance with National Register criteria are location, design, setting, materials, workmanship, feeling, and association. As defined in National Register Bulletin 15: *How to Apply the National Register Criteria for Evaluation*:

Location is the place where the historic property was constructed or the place where the historic event occurred; **design** is the combination of elements that create the form, plan, space, structure, and style of a property; **setting** is the physical environment of a historic property; **materials** are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property; **workmanship** is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory; **feeling** is a property's expression of the aesthetic or historic sense of a particular period of time; and **association** is the direct link between an important historic event or person and a historic property.

National Register Bulletin 15 also states that

Integrity is the ability of a property to convey its significance....Historic properties either retain integrity (that is convey their significance) or they do not. Within the concept of integrity, the National Register Criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey significance. Determining *which* of these aspects are most important to a particular property requires knowing why, where, and when the property is significant.

National Register Bulletin 40: *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields* provides additional guidance regarding the assessment of integrity for battlefield landscapes. National Register Bulletin 40 recommends that, generally, the most important aspects to consider when assessing battlefield integrity are **location, setting, feeling**, and **association**. At Wilson's Creek, the majority of the cultural resources that likely existed at the time of the battle have been lost, and may exist only within the archeological record. For those resources that do survive from the Civil War period, the aspects of integrity that are most important are location, setting, feeling, and association. The integrity assessment that follows for the Civil War period of significance will therefore focus on these four aspects of integrity.

The bulletin also discusses an approach to assessing overall integrity for battlefields that is particularly relevant to this study, and has been taken into consideration as part of the development of the integrity assessment that follows:

Battlefields cannot be frozen in time... Even where efforts to preserve the battlefield were initiated almost immediately, as at Gettysburg, it proved impossible to perpetuate the scene in the exact form and condition it presented during the battle. Instead, Gettysburg presents several layers of history, including its post-battle

Wilson's Creek National Battlefield, Republic, Missouri Cultural Landscape Report, Part I

memorialization. The best-preserved battlefields appear much as they would have at the time of battle, making it easy to understand how strategy and results were shaped by the terrain. All properties, however, change over time and nearly all battlefields will contain non-contributing properties. The impact of non-contributing properties on a battlefield as a whole depends not only on their number, but also on their nature and location and the size and topography of the battlefield. While this is a subjective judgement there are some general principles for assessing integrity. If the type of non-contributing property reflects a continuing layer development of traditional land use, then the impact of these properties may not be as great as that of modern properties that do not reflect the historic use of the land. For example, in battlefields located in rural or agricultural areas, the presence of farm related buildings dating from outside the period of significance generally will not destroy the battlefield's integrity. It is important that the land retain its rural or agricultural identify in order for it to convey its period of significance. The impact of modern properties on the historic battlefield is also lessened if these properties are located in a dispersed pattern. If a battlefield is characterized by rolling topography, the impact of later non-contributing properties may also be lessened. The covering of former open fields with trees is a natural and reversible alteration to the landscape. If it can be demonstrated that, despite the forestation of an area, the battle took place in that particular spot, then the battlefield retains integrity of location.⁸

Overview

The Civil War Sites Advisory Commission's 1993 *Report on the Nation's Civil War Battlefields* lists Wilson's Creek as a Class A battlefield with good integrity, low threats to integrity, and more than 20 percent of its core area protected. Although there are small areas to the perimeter of the park that played a role in the events of August 10, 1861, the park for the most part encompasses the majority of the geographic area associated with the battle. Based upon the work conducted on behalf of this CLR, the Wilson's Creek NB landscape appears to possess at least a fair degree of integrity for the significant Civil War battle period based on the existence of surviving landscape features and systems that continue to facilitate an understanding of the events of the battle. The commemorative period landscape of Bloody Hill retains less integrity, due to the loss of the majority of the late nineteenth and early twentieth century associated features.

The park retains some, but by no means all, of the features that comprised the site's rural and agricultural early settlement character on August 10, 1861. It also retains the natural resources and systems that played an important tactical role in the battle, including Wilson's Creek, Skegg's, Manley, Short's, and McElhaney's Branches, numerous springs, prominent landforms such as Bloody Hill, and open fields formerly associated with active agriculture. The site's landscape features were important factors in determining military strategy and the events that unfolded over the course of the battle, and continue to retain the ability to convey this information. The park's strong rural character, and interpreted agricultural component, also support its ability to convey nineteenth century-conditions.

The later loss of many important cultural features, such as farm complexes, agricultural land uses, fencing, road networks, and vegetation communities, has diminished the landscape's Civil War period integrity by varying degrees. Subsequent interventions, including those established to

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⁸ Patrick W. Andrus, National Register Bulletin 40: *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields* (Washington: U.S. Government Printing Office, 1992), 11-12.

support park administration, visitation, and interpretation, have also diminished the battlefield's integrity.

Integrity Assessment Using Four Primary Aspects

The property retains a high degree of **integrity of location** in association with the Civil War Battle of Wilson's Creek. The park includes the majority of the lands associated with the battle, and exists in the same location as the historic battlefield. There remains sufficient undeveloped land in and around the park to continue to convey the sense of a nineteenth-century early settlement landscape, although the farmsteads themselves are no longer present. It also retains a high degree of integrity of location for the commemorative period (ca. 1861-1960) as the site where monuments have been placed, and events, reunions, and festivals have been held in honor of the battle and to mark the site where Gen. Nathaniel Lyon lost his life.

Wilson's Creek NB retains a more limited degree of **integrity of setting** for the Civil War and commemorative periods due to the degree to which vegetation composition has changed during the latter part of the twentieth century. The agricultural activities currently conducted at the park under the historic lease program approximate field patterns thought to have existed during the Civil War period and contribute to the site's integrity of setting. However, the proliferation of weedy woody growth over areas that were dominated by savanna and grasslands at the time of the Civil War detracts greatly from the integrity of setting. The texture of the current landscape, dominated by scrubby post-agriculture woods, has changed dramatically since the mid-nineteenth century. As noted in National Register Bulletin 40, changes in vegetation patterns can be treated as a reversible condition, and attempts to restore mid-nineteenth-century vegetation communities support the future enhancement of the site's integrity of setting.

Post-battle park developments, particularly the Tour Road, and the loss of nineteenth-century farmsteads, associated agriculture, and roads also detract from the site's integrity of setting. Although some incompatible development has occurred within the park's viewshed, views of the surrounding landscape remain relatively unencumbered by large-scale urban, suburban, and industrial development, contributing to the site's integrity of setting.

The site also retains limited **integrity of feeling** for the Civil War and commemorative periods of significance, based to a great degree on the factors discussed above. The continued presence of landforms and water resources that characterized the site and helped to structure the landscape during and after the Civil War battle support interpretation of the site during the periods of significance. In addition, the site as a whole continues to retain a rural and agricultural character, which supports its integrity of feeling. Twentieth century features, such as the McElhaney farm complex, that are in keeping with the site's regional rural and agricultural character, do not detract from the site's integrity of feeling. However, there are park related features, such as the Tour Road, that are visually intrusive and serve to detract from the site's integrity of feeling.

The current extent of weedy, woody vegetative cover also detracts from the visitor's ability to read the landscape and make connections between battle events and topographic and cultural features. Again, as noted in Bulletin 40, vegetation changes post-dating the battle may be considered a reversible condition. Restoration of nineteenth-century conditions would enhance the site's integrity of feeling.

Finally, the battlefield possesses a fair degree of **integrity of association** for the Civil War period, but a diminished degree of integrity for the commemorative period. Wilson's Creek NB remains

the site where the battle occurred, and is sufficiently intact to convey that relationship to the visitor. The numerous contributing resources that survive from the Civil War period, with links to battle events and activities, support the site's integrity of association.

The commemorative features that evolved on the site through visits and pilgrimages by soldiers, veterans, and others during the initial part of the commemorative period—a rock cairn, access road, trail, and flag—do not survive. Although the Lyon Marker continues to mark the central focus of these activities—the site where General Lyon died—it is evidence of the commemorative impetus of a generation removed from the battle. All of the commemorative features representing direct links to the combatants, save perhaps the etched stone near the marker, are now gone.

Prairie Restoration Units and Other Vegetation Types

The primary prairie restoration units are located along the northeastern boundary of the park, in the vicinity of the Ray House, along the northwestern boundary, over a large area in the west-central portion of the park, and in a small area in the southeastern corner adjacent to Wilson's Creek. Over the past thirteen years, prescribed fire has been conducted between one and six times within each of these prairie restoration areas.

In those restoration areas where prescribed fire has been relatively frequent, tall warm season grasses such as little bluestem (*Schizachrium scoparium*), big bluestem (*Andropogon gerardii*), and Indian grass (*Sorghastrum nutans*) predominate. A few forbs appear, including wild bergamot (*Monarda fistulosa*) and black-eyed Susan (*Rudbeckia hirta*). In restoration areas where fire has been infrequent, the plant community is better described as old field.

The restoration efforts at Wilson's Creek NB are quite typical of the landscape-scale restorations that have occurred throughout the Midwest during the post-World War II era. These restorations have served to establish warm season grasses that stabilize the soil and promote rainwater infiltration. Some of the past restoration efforts, however, have been counterproductive by introducing non-native plant species. In general, the restoration efforts have suffered for not receiving the nearly annual fire necessary to sustain such biodiversity. The results are plant assemblages dominated by grasses with few or no insect pollinated species (i.e. forbs). These "systems" are incapable of providing the plant species diversity and regeneration necessary to ensure the presence of strong pollinator and plant dependent insect and animal species that are characteristic of prairie communities.

The other primary vegetation types that characterized the pre-settlement period that are still partly represented on the site are limestone glades and savannas. The glades areas are currently threatened by Eastern redcedars and Old World annual brome grasses that thrive in the fire-suppressed conditions. Occasionally, native species are encountered particularly where the glades have been cleared of invasive species and prescribed fire has been applied. Examples of these areas exist in the southeastern portion of the park overlooking Wilson's Creek as well as at Bloody Hill. The best examples of remnant savanna exist along the west-facing bluffs of Wilson's Creek, above the old railroad bed, in the vicinity of and south of the Manley family cemetery; and on the northern exposures of the bluffs along Skegg's Branch. These areas are characterized by large, old, open grown oaks and other hardwoods, with sedge and graminoid groundcover layers. The savannas are also suffering from fire suppression.

Finally, the catastrophic hydrological changes within the Wilson's Creek watershed have either buried or scoured away the once species-rich corridor. The overwhelming proportion of associated

vegetation now consists of a few weedy species of Eurasian origin. The exposed root systems of several of the trees along Wilson's Creek are evidence of the severe erosion that takes place during growing season rain.

The current status of the vegetation comprising the Wilson's Creek NB is the result of years of intensive agriculture, livestock grazing, fire suppression, park development/site improvement activities, and horticulture. The combination of these factors over time has resulted in a landscape that today is scarcely recognizable to the one that existed at the time of the battle. The original system stability and integrity of the site is in danger of extinction.

Archeological Resources and Their Interpretive Potential

Wilson's Creek NB contains a substantial number of known archeological resources that significantly contribute to the integrity of the cultural landscape. For the purposes of this discussion, archeological resources will be broadly defined to include not only all subsurface artifacts and features but also aboveground features such as architectural ruins, mill dams and races, cemeteries, and road systems, that are integral to interpreting both specific sites and the larger park landscape.

Generally speaking, all of the known historic archeological sites within Wilson's Creek NB fall into three broad categories: house or home sites, formal cemeteries or informal burial sites, and industrial sites such as mill complexes, quarries and corporate towns. All of these archeological sites retain integrity in the areas of location, setting and association. Each of the properties, whether house site, cemetery, or mill ruin, was located within the larger battlefield landscape, and continues to maintain significant relationships with other adjacent features such as views, road systems and fence lines. Furthermore, many of them were present during the period of significance.

The number of known archeological sites and the broad representation of site types contribute substantially to the integrity and significance of the larger park landscape. Archeological sites within Wilson's Creek NB are integral to park interpretation and help to re-establish a feeling for the 1861 period of significance. A majority of the known archeological resources serves to place the park visitor where events related to the period of significance occurred. The locations of former house sites document where battlefield headquarters were stationed or troops were positioned, road corridors document how troops moved through the battlefield, and informal grave sites document where soldiers were buried.

Because the goal of park-wide archeological investigations in the 1960s and 1970s was to locate and identify as many of the historic features dating to the 1861 period of significance as possible, the locations of many of the archeological sites are already linked to park-wide automobile and pedestrian interpretive systems. The potential interpretive value of certain specific archeological resources, however, could be expanded. For example, interpretation at the Gibson House (23GR230) and Mill (23GR231, 23GR232, and 23GR256) sites could be expanded to talk about the development of milling within the larger context of a rural agrarian community and how this technology changed or failed to change during subsequent periods of industrial development. In addition, park interpretation could also be expanded to discuss the development of regional railroads and the Town of Wilson Creek (23GR243). Here the development of an early twentieth century corporate town and its relationship to an adjacent limestone quarry, lime kiln and subsequent tomato cannery could expand interpretive emphases beyond the period of significance. Just as significantly, the Town of Wilson Creek could be connected to N.C. Wyeth, the famous illustrator and painter, who visited in 1920. More directly related to the period of significance, interpretation could be expanded to include a discussion of the development of national commemoration activity and the increasing growth of veterans' battlefield reunions. In terms of archeological resources, sinkhole #1 (23GR234), the well burial site (23GR240), the Lyon Marker (23 GR242), and historic documents and photographs could be used to interpret this period at Wilson's Creek NB and other important battlefield sites.

The predominant type of known prehistoric archeological sites within Wilson's Creek NB are lithic scatters. Other site types such as rock shelters (23CN80) and rock art (23GR241) are also present. All prehistoric sites within Wilson's Creek NB pre-date the periods of significance. However interpretation of known prehistoric archeological sites within Wilson's Creek NB could document how the park landscape was used and how these uses changed over time. Information obtained from prehistoric land use could be compared to historic land use. Interpretation could address how topography and access to water and other natural resources impacted the selection of a site from the prehistoric to historic periods. Data obtained from prehistoric archeological sites from Wilson's Creek NB could also be compared to region-wide data and models for habitation and subsistence.

Archeological investigations also have the potential to answer site specific questions that are driven by interpretive needs. For example, at the Town of Wilson Creek (23GR243), archeology can attempt to locate residences, roads and trails, fence lines and other historic features that would be integral to any interpretation of the town.

Identification of Landscape Character Areas

Landscape character areas provide a method for identifying places and for conceptualizing them as relatively cohesive spaces or collections of like elements. They can also serve as useful tools for organizing landscape treatment recommendations.

Based on field investigations and an understanding of the site's topography, hydrology, cultural features, and vegetation, twenty-two character areas have been identified for the Wilson's Creek NB landscape. Each landscape character area represents a discrete portion of the site that is defined by physical characteristics, by the type and/or concentration of historic landscape features, or by both. In the case of Wilson's Creek, approximately one half of the character areas derive their identity from built or constructed form, while the other half are associated with an identifiable plant community. A few of the character areas that relate primarily to plant communities represent discontiguous examples of like places, and are identified by a single name.

Each of the identified character areas is named and described here in narrative form, and indicated on *figure 89*.

Maintenance Area

Bounded by Highway ZZ on the east and Farm Road 182 on the north, the Maintenance Area character area contains buildings and structures that support park maintenance activities. Other features associated with the area include an access drive and gate, site furnishings, chain link fencing, and a trailer housing the offices of the Prairie Cluster Long-Term Ecological Monitoring Program.

Visitor Center Complex

The Visitor Center Complex character area is bounded by Farm Road 182 on the north, Highway ZZ on the west, the wastewater treatment plant area to the east, and the Tour Road to the south. Worm fencing edges portions of the character area to the north and west. Landscape features associated with this character area include the Visitor Center, an access drive, the primary visitor arrival and parking area, a picnic area, site furnishings, ornamental plantings, lawn, and a Nature Trail.

Wastewater Treatment Plant

The Wastewater Treatment Plant character area is bounded by the Tour Road on the south and the Visitor Center complex on the west. The area includes an access road and a structure that formerly served as a wastewater treatment facility for the park. This structure is now utilized for storage and as a maintenance shop. Additional storage structures edge a central parking area.

Edgar Cemetery

The Edgar Cemetery character area is located between the Tour Road and Farm Road 182. It includes headstones associated with numerous graves and a planting of Eastern redcedar trees. A hard-packed earth and grass surfaced access road connects the Tour Road to Farm Road 182. A gate controls access to the road from Farm Road 182. Open fields and successional woodlands edge the area to the east and west.

Manley Cemetery

Located on a knoll along the park's eastern boundary, the Manley Cemetery character area includes worm fencing that encloses a cemetery precinct, headstones associated with numerous gravesites, Eastern redcedar trees, and herbaceous ornamental plantings. A hard-packed earth and gravel access drive leads to the cemetery from the Manley/Uplands Trail system.

Ray House Precinct

The Ray House Precinct character area straddles the Tour Road in the northeastern portion of the park. It includes the house, springhouse, a water storage structure, and a section of the Wire Road trace, as well as worm fencing, a bench, a stone wall, a planting of sugar maple trees, lawn, and park access and interpretation features. The access and interpretive features include a parking area, paved walk, concrete stair, and interpretive waysides.

McElhaney Farm Complex

The McElhaney Farm Complex character area is located south of Farm Road 194. It is composed of the house, barn, root cellar, smokehouse, cistern, storage structures, a gravel driveway, lawn, mature trees, a propane tank, and picnic tables. An unimproved road leads from the McElhaney Farm Complex to an old fire road that is now used as the Manley/Uplands Trail.

Ray Cornfield

The Ray Cornfield character area lies between the Tour Road and the Ray House Precinct in the northeastern portion of the park. It is comprised of an open field, maintained through haying, that is enclosed within perimeter worm fencing. A former farm road traverses the field. It is utilized as part of the equestrian trail system.

Knoll/Pulaski Battery Site

The Knoll/Pulaski Battery Site character area is comprised of the knoll landform located to the west of the Wire Road and the McElhaney farm that served as an artillery position during the Battle of Wilson's Creek. It is composed of a trail leading to an interpretive wayside at the Pulaski Battery site and views towards Bloody Hill. Remnant structures associated with a quarry site exist on the eastern side of the knoll. The Gwinn House is thought to have stood along the northern side of the knoll at the time of the war.

Edwards Cabin Site

The Edwards Cabin Site character area is located to the west of Wilson's Creek near the County Road bridge. It is edged by an open field to the west, and the Wire Road character area to its east. The Edwards Cabin Site character area includes a cabin that was moved onto the site in the 1970s, open field, an interpretive wayside, and a grass-tread trail. The cabin thought to have stood in this location at the time of the war is no longer extant. From the cabin site, long views are afforded towards Bloody Hill.

Sharp Crop Field

The Sharp Crop Field character area is located in the portion of the park that lies within Christian County. Like the Ray Cornfield, this character area is maintained in open vegetative cover through haying or mowing. Wooden worm fencing partially encloses the field. Wilson's Creek edges the character area to the east, and young woodlands edge it to the west and north. Riparian woods associated with Terrell Creek beyond the park's southern boundary edge the character area to the south.

Bloody Hill

The Bloody Hill character area encompasses the prominent landform over which the most intense fighting occurred during the Battle of Wilson's Creek, and which has been the primary focus of commemoration and interpretation since the battle. The character area is comprised of a parking pull-off, a loop trail with interpretive waysides and replica cannon, a commemorative marker, a sinkhole site where dead soldiers were buried after the battle, and restored prairie and woody thicket plant communities.

East Battlefield Overlook

The East Battlefield Overlook character area is located along the Tour Road below the McElhaney farm complex. It is comprised of an access trail that includes a long flight of wooden steps leading to an interpreted viewing station, and scrubby old field vegetation. From the overlook, long views are afforded across the battlefield towards Bloody Hill.

West Battlefield Overlook

Located along the Tour Road to the north of Bloody Hill, the West Battlefield Overlook includes a parking pull-off and short trail section leading to a viewing station affording views to the north and east.

Wire Road

The Wire Road character area extends between the McElhaney farm complex and the park's southwestern boundary. Partially depressed in relationship to the surrounding grade, and edged by tree cover and evidence of abandoned cultural uses, the Wire Road corridor has a strong spatial character and sense of unity. It includes the road prism, the County Road bridge, a living fence, and evidence of a former house site near the park's southwestern boundary.

Limestone Glade

Three discontiguous Limestone Glade character areas have been identified within the park. One of these is south of the Manley family cemetery, and the two others are in the vicinity of Bloody Hill. They are characterized by exposed bedrock or bedrock located beneath a thin mantle of soil, supporting a diverse herbaceous plant community, with woody plants occupying pockets of deeper soil. Eastern redcedars are beginning to dominate most of the glade sites.

Riparian Corridor

The Riparian Corridor character area follows Wilson's Creek as it flows through the park. It includes the stream and associated floodplain, and the generally woody conditions that edge the corridor. The intermittent streams that feed Wilson's Creek are similarly wooded, and are included within this character area.

Cliff–Steep Slopes

The Cliff–Steep Slopes character area encompasses the landform located to the west of Wilson's Creek in the northern section of the park. The character area includes steeply sloped and rocky terrain that parallels the Riparian Corridor. A cave and associated spring are located within the southern half of the character area.

Young Woodlands

Young woodlands occur throughout the park. These range from low scrubby growth to stands of trees that may date from the middle part of the twentieth century. There are three discontiguous broad bands that comprise this character area. These occur between the East Battlefield Overlook and the park's southern boundary, to the north of Bloody Hill, and along the eastern boundary of the park to the south of Bloody Hill. There are also small areas of woods along the park perimeter.

Mature Woodlands

The Mature Woodlands character area occurs in the southwestern portion of the park on a fairly steep slope. It is edged by two areas of glade communities and a younger successional woodland. The character area is traversed by the Manley/Uplands Trail. Mature trees, with little scrubby undergrowth, characterize this area.

Field - Prairie

Fields that are in the process of being restored as prairie communities exist in various places around the park. The discontiguous Field-Prairie character area includes sites in the park's northwestern and northeastern corners, to the west of the Edwards Cabin Site, and to the south of Bloody Hill. Many of these include fencing, road, or trail features, as well as scattered clumps of trees and shrubs.

Field - Fescue

The Field-Fescue character area is also a discontiguous collection of open areas dominated by fescue maintained through haying or mowing. These fields exist near the Visitor Center, along the park's northern boundary, along the Tour Road, to the east of Wilson's Creek, and in the park's southeastern corner. These fields are also sometimes associated with fencing, road or trail features, and clumps of woody vegetation.

Vegetation



Figure 86. Threatened and endangered plant species locations.