



# State of the Park Report

## Guilford Courthouse National Military Park North Carolina



2015

**On the cover:** Statue of General Nathanael Greene at Guilford Courthouse National Military Park

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Disclaimer. This State of the Park report summarizes the current condition of park resources, visitor experience, and park infrastructure as assessed by a combination of available factual information and the expert opinion and professional judgment of park staff and subject matter experts. The [internet version](#) of this report provides the associated workshop summary report and additional details and sources of information about the findings summarized in the report, including references, accounts on the origin and quality of the data, and the methods and analytic approaches used in data collection and assessments of condition. This report provides evaluations of status and trends based on interpretation by NPS scientists and managers of both quantitative and non-quantitative assessments and observations. Future condition ratings may differ from findings in this report as new data and knowledge become available. The park superintendent approved the publication of this report.

# Executive Summary

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The mission of the National Park Service is to preserve unimpaired the natural and cultural resources and values of national parks for the enjoyment, education, and inspiration of this and future generations. NPS Management Policies (2006) state that “The Service will also strive to ensure that park resources and values are passed on to future generations in a condition that is as good as, or better than, the conditions that exist today.” As part of the stewardship of national parks for the American people, the NPS has begun to develop State of the Park reports to assess the overall status and trends of each park’s resources. The NPS will use this information to improve park priority setting and to synthesize and communicate complex park condition information to the public in a clear and simple way.

The purpose of this State of the Park report is to:

- Provide to visitors and the American public a snapshot of the status and trend in the condition of a park’s priority resources and values;
- Summarize and communicate complex scientific, scholarly, and park operations factual information and expert opinion using non-technical language and a visual format;
- Highlight park stewardship activities and accomplishments to maintain or improve the State of the Park;
- Identify key issues and challenges facing the park to help inform park management planning.

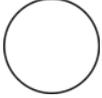
The Purpose of Guilford Courthouse National Military Park (GUCO) is to preserve for historical and professional military study as well as the benefit, education, and inspiration of the public, the battlefield, and the accounts of the Battle of Guilford Courthouse during the Southern Campaign of the American Revolution.

Significance statements express why the park unit’s resources and values are important enough to warrant national park unit designation. GUCO is significant because:

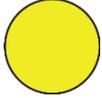
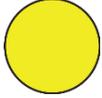
1. Guilford Courthouse was the first Revolutionary War battlefield protected by the federal government.
2. The outcome of the Battle of Guilford Courthouse was so costly to the British that Cornwallis ultimately had to change his whole southern strategy and abandoned his plans to capture the backcountry of North Carolina and South Carolina.
3. Cornwallis’ retreat to Virginia freed Greene to turn southward and retake control of the South.
4. The British retreat set the stage for Cornwallis to be bottled up at Yorktown where his forces ultimately surrendered.

The summary table, below, and the supporting information that follows, provide an overall assessment of the condition of priority resources and values at GUCO based on scientific and scholarly studies and expert opinion. The internet version of this report, available at <http://www.nps.gov/stateoftheparks/guco/>, provides additional detail and sources of information about the resources summarized in this report, including references, accounts on the origin and quality of the data, and the methods and analytical approaches used in the assessments. Reference conditions that represent “healthy” ecosystem parameters, and regulatory standards (such as those related to air or water quality) provide the rationale to describe current resource status. In coming years, rapidly evolving information regarding climate change and associated effects will inform our goals for managing park resources, and may alter how we measure the trend in condition of park resources. Thus, reference conditions, regulatory standards, and/or our judgment about resource status or trend may evolve as the rate of climate change accelerates and we respond to novel conditions. In this context, the status and trends documented here provide a useful point-in-time baseline to inform our understanding of emerging change, as well as a synthesis to share as we build broader climate change response strategies with partners.

The Status and Trend symbols used in the summary table below and throughout this report are summarized in the following key. The background color represents the current condition status, the direction of the arrow summarizes the trend in condition, and the thickness of the outside line represents the degree of confidence in the assessment. In some cases, the arrow is omitted because data are not sufficient for calculating a trend (e.g., data from a one-time inventory or insufficient sample size).

Condition Status		Trend in Condition		Confidence in Assessment	
	<b>Warrants Significant Concern</b>		<b>Condition is Improving</b>		<b>High</b>
	<b>Warrants Moderate Concern</b>		<b>Condition is Unchanging</b>		<b>Medium</b>
	<b>Resource is in Good Condition</b>		<b>Condition is Deteriorating</b>		<b>Low</b>

## State of the Park Summary Table

Priority Resource or Value	Condition Status/Trend	Rationale
<b>Natural Resources</b> <a href="#">web</a> ▶		
<b>Air Quality</b>		For 2008–2012: ozone condition warrants significant concern; sulfur and nitrogen wet deposition conditions warrant significant concern; and visibility condition warrants significant concern. Condition levels are based on NPS Air Resource Division benchmarks.
<b>Water Quality</b>		Water quality at the park is based on evaluations of water temperature, pH, dissolved oxygen, specific conductance, <i>E. coli</i> , and acid neutralizing capacity at three stream monitoring sites, from 2004 to 2012. Waters occasionally exceed state standards for bacteria, pH, and dissolved oxygen. While depressed pH and oxygen may be naturally caused or accentuated, respectively, high bacteria levels are likely due to the park being surrounded by suburban development
<b>Forested and Wetland Communities</b>		Water quality at the park is based on evaluations of water temperature, pH, dissolved oxygen, specific conductance, <i>E. coli</i> , and acid neutralizing capacity at three stream monitoring sites, from 2004 to 2012. Waters occasionally exceed state standards for bacteria, pH, and dissolved oxygen. While depressed pH and oxygen may be naturally caused or accentuated, respectively, high bacteria levels are likely due to the park being surrounded by suburban development.
<b>Wildlife Communities</b>		Based on wildlife inventories from 2001–2007, the park supports a good number of birds, fish, and bat species (including reproductive populations of some), and could be an important refuge in the rapidly urbanizing landscape surrounding the park. However, likely due to historical land use and urbanization, some species groups (small mammals, reptiles, and amphibians) showed lower than expected diversity, and/or decline. More inventories are needed to further document the condition of wildlife communities at the park.

Priority Resource or Value	Condition Status/Trend	Rationale
Dark Night Sky		The Park's surrounding land has changed from a rural to urban character over the past century. During the 1980s and 90s, through to the present has brought a change from suburban to urban, and now appears to be stabilized in a mixed urban/suburban pattern. With more development, lighting from streetlights and homes has increased. The city has maintained its big trees, mitigating some of the light pollution.
Soundscapes		The mean L <sub>50</sub> Impact (L <sub>50</sub> dBA), a measure of noise contributed to the existing acoustical environment by anthropogenic sources, is 10.4 dBA. Nationwide increases in ground-based and aircraft traffic indicate a downward trend in the quality of acoustic resources.
<b>Cultural Resources</b> <a href="#">web</a> ▶		
Archeological Resources		Approximately 11% of the park has been adequately surveyed for archeological resources. The 6 known archeological sites and 13 subsites are all in good condition. National Register documentation is described as 2 Good, 2 Fair and 2 Poor. Most of the sites and surveys are included in the SEAC GIS, and all are recorded in ASMIS. An overview and assessment report should be completed in FY 2014.
Cultural Anthropology		To date there is an active Ethnographic Overview and Assessment project underway at GUCO under the direction of PI- Dr. David Griffith from E. Carolina State University. The study will identify groups who have both traditional and contemporary ties to the park and their resource uses and concerns. The results of the study will prepare managers to anticipate resource use issues that may affect their parks, and place them in a better position to understand and deal with such issues in the future.
Cultural Landscapes		Documentation of the cultural landscapes at Guilford Courthouse NMP is good with two Cultural Landscape Inventories (CLI) certified in 2005 and a Cultural Landscape Report (CLR) completed in 2003. The CLR provides treatment recommendations, a physical site history, and evaluates contributing characteristics and features, in addition to detailing existing conditions. The park should update the CLR to address new land acquisitions and complete a CLI for the Hoskins Farmstead. The National Register nomination details the NPS Park Development Era, though should be expanded to address contributing vegetation.
Historic Structures		The structures at the Hoskins House Historic District (4) need to be assessed for condition. Historic Structure Reports for the Hoskins House and Coble Barn, both within the Hoskins House National Historic District, are under contract for this fiscal year per a PMIS statement. 81% of the historic structures listed in the LCS (26 of 32) are in good condition.
History		Although GUCO has acquired National Historic Landmark status, which implies significant documentation of its history and the cultural resources that remain within the park, historical research is still needed to amend the Hoskins House Historic District NR nomination to revisit and enhance earlier research and interpretation of the park as a whole.
Museum Collections		Most Baseline Documentation for the museum collections is up to date. There is a significant backlog to be cataloged (341.55 LF of archives that will be accessioned in FY 2014) that brings the percentage cataloged down to 7.94%. Museum collections are in fair to good condition and would improve significantly if the 2011 Collection Storage Plan could be implemented.

Priority Resource or Value	Condition Status/Trend	Rationale
<b>Visitor Experience</b> <a href="#">web</a> ▶		
Number of Visitors		The total of 541,581 visitors to the park in 2013 is higher than the 10-year average of 382,723 visitors for 2003–2012. These numbers do not reflect foot traffic or bike users accessing unmonitored entry points throughout the park. These users are undocumented and adversely impact the resource. These documented numbers are provided in the NPS Monthly Public Use Reports
Visitor Satisfaction		Visitor satisfaction in FY13 was 99.0%, which is higher than the average for the previous five years (97.0%). Source: 2013 Visitor Survey Card Data Report
Interpretive and Education Programs – Talks, Tours, and Special Events		Participants in our 2012 Interpretive and Educational Programs were the highest in 3 years. Participation in 2011 was documented at 131,983; 2012 was 134,292. 2013 received the lowest participation at 121,925. This is due to the reduction in budget, staffing, and the effect of the government shut down. 2012 staffing levels and budget were at their highest during this span.
Interpretive Media – Brochures, Exhibits, Signs, and Website		<b>Brochures:</b> recently updated to reflect current park land acquisitions. <b>Exhibits/Auditorium Film/ Map Program:</b> All exhibits /programs/films were updated and installed in 2001. Park utilizes temporary exhibits for public education 5–6 times annually. <b>Waysides/Kiosks/bulletin boards:</b> are dated over 10 years old and are in need of replacement due to environmental exposure and visitor impact. <b>Signs:</b> Many directional signs are in need of replacement and more signage is needed due to the development of new interstates and roads accessing the park. <b>Website:</b> Park website is updated routinely providing news alerts, operating hours and special events. There is currently no social media outlets related directly to the park. Improvements must be made in this area in order to promote the site.
Accessibility		There is ample accessibility to the Visitor Center, films, museum, and Map Program. All parking lots have ramps to access waysides and comfort station. The Battlefield and interior trails are not ADA compliant due to their sloping nature, but are accessible to those with limited mobility.
Safety		Safety is a high priority of the park staff. There are very few incidents of visitor injury or sickness relating to safety issues within the park. Law enforcement issues are declining due to vigilance and proactive measures.
Partnerships		Over the past 3 years, the entire park and its individual divisions have benefitted from the use of volunteers. Over 1,000 Volunteers have provided 20,674 hours of service during that span.
<b>Park Infrastructure</b> <a href="#">web</a> ▶		
Overall Facility Condition Index		The overall Facility Condition Index for 88 assets for FY13 is 0.035, which is Good based on industry and NPS standards.

# Summary of Stewardship Activities and Key Accomplishments to Maintain or Improve Priority Resource Condition

The list below provides examples of stewardship activities and accomplishments by park staff and partners to maintain or improve the condition of priority park resources and values for this and future generations:

## Natural Resources

- Ongoing treatment/removal of exotic and invasive plants by the NPS/SERO Exotic Plant Management Team, park staff, and volunteers.
- Completion of baseline natural resource inventories for vertebrates and vascular plants.
- Identification of key natural resources “vital signs” for long-term monitoring by the Cumberland Piedmont Inventory and Monitoring Network.
- Natural Resource Condition Assessment currently being developed by Western Carolina University to evaluate and summarize existing natural resource data for the park.
- Partnered with UNC-Greensboro Environmental Studies Department utilizing student interns to research environmental topics associated with park and to develop temporary exhibits and educational site bulletins (native trees, exotic plant species, and mammals).
- Partnered with the Piedmont Bird Club to provide bird walks for park visitors.

## Cultural Resources

- Archeological site conditions were assessed in 2013.
- Archeological sites and surveys have been digitized in GIS and made available to park staff through a web map viewer.
- Monuments have been photographed.
- Trees have been planted at Schenck’s Field, the Hessian Tract, Stop 4, and the southeast corner in order to comply with the CLR treatment recommendations.
- Four temporary exhibits were prepared and displayed in 2013: the Archeology at GUCO exhibit displayed recent archeological artifacts and information; Revolutionary War Equipment; Powder Horn and Hunting Bags from the GUCO collections; The French and Indian War.
- The GUCO Library received a complete set of the Cornwallis Papers to complement the library holdings.

## Visitor Experience

- On Cell phone audio tours at Colonial Heritage Center and Main Battlefield installed 2011–2012.
- Acquisition of the Colonial Heritage Center/Hoskins Farm (formerly Tannenbaum Park), 2010.
- Main Tour Road repavement project completed 2009 to better assist pedestrians and motorists tour the park in a safe environment.
- AmeriCorps program 2011, 2012 introduced a younger audience to the mission of the National Park Service.
- Grant received 2012 to fulfill Call to Action goals engaging the diverse community and youth groups in cultural and historical education.
- Positive recruitment and retention of youth to the Junior Volunteer Program and adults to the Volunteer/Park Watch Program.

## Park Infrastructure

- Replacing HVAC systems with energy efficient ones in the Visitor Center and the Colonial Heritage Center.
- Funding for project in 2014 for complying with Energy Audit of 2010. This project involves six major buildings in the park.
- The 2.5 miles of trails and approximately 50 acres of landscapes are maintained by park staff.

# **Key Issues and Challenges for Consideration in Management Planning**

The urban surroundings of this 250 acre park, the actual number of park users, and the very limited staffing for the park create the most critical management challenges for Guilford Courthouse NMP. Whether the topic of concern is invasive plants and animals, battlefield preservation, the night sky, park soundscapes, the conflicting mix of autos, pedestrians, and bicyclists on the tour road or providing a commemorative/history related experience for visitors, the challenges in executing balanced and proactive management are enormous and growing.

Invasive species infiltrating from surrounding neighborhoods is perhaps the most critical concern for the park. The urban nature of the park prohibits controlled burning, one of the most effective, natural control methods for invasive species. That leaves only manual and chemical controls as the methods the park can use for invasive plant control.

Reduced staffing and budgets, with more complex data management systems and increasing reporting requirements take up staff time and have made it even more challenging to preserve and protect resources and increase the number of history-related park visits. Park reliance on volunteers, interns, and a park watch program (similar to a community watch program) has increased to help staff keep up with demands of an ever changing and more complex work environment.

# Chapter 1. Introduction

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The purpose of this State of the Park report for Guilford Courthouse National Military Park (GUCO) is to assess the overall condition of the park's priority resources and values, to communicate complex park condition information to visitors and the American public in a clear and simple way, and to inform visitors and other stakeholders about stewardship actions being taken by park staff to maintain or improve the condition of priority park resources for future generations. The State of the Park report uses a standardized approach to focus attention on the priority resources and values of the park based on the park's purpose and significance, as described in the park's Foundation Document or General Management Plan. The report:

- Provides to visitors and the American public a snapshot of the status and trend in the condition of a park's priority resources and values.
- Summarizes and communicates complex scientific, scholarly, and park operations factual information and expert opinion using non-technical language and a visual format.
- Highlights park stewardship activities and accomplishments to maintain or improve the state of the park.
- Identifies key issues and challenges facing the park to inform park management planning.

The process of identifying priority park resources by park staff and partners, tracking their condition, organizing and synthesizing data and information, and communicating the results will be closely coordinated with the park planning process, including natural and cultural resource condition assessments and Resource Stewardship Strategy development. The term "priority resources" is used to identify the fundamental and other important resources and values for the park, based on a park's purpose and significance within the National Park System, as documented in the park's foundation document and other planning documents. This report summarizes and communicates the overall condition of priority park resources and values based on the available scientific and scholarly information and expert opinion, irrespective of the ability of the park superintendent or the National Park Service to influence it.

GUCO protects the site of the largest, most hotly contested battle of the Revolutionary War's climactic Southern Campaign. At the small North Carolina backcountry hamlet of Guilford Courthouse on Thursday, March 15, 1781, Maj. Gen. Nathanael Greene and his army of almost 4,500 American militia and Continentals were tactically defeated by a smaller British army of about 1,900 veteran regulars and German allies commanded by Gen. Lord Charles Cornwallis.

Greene deployed his troops in three successive lines, known as a "defense in depth." This compelled the attacking British forces to fight their way through two lines of militia on a sloping field cut by a deep ravine before finally clashing with Greene's third line of Continental regulars. Here some of the United States' best troops clashed with the elite British Guards in savage bayonet fighting. After two and one-half hours of intense and often brutal combat, Cornwallis forced the Americans to withdraw from the field. Greene's retreat preserved the strength of his army. Cornwallis paid for his dubious victory with nearly 27% of his army who were killed or wounded. One shaken member of the British Parliament reportedly exclaimed, "Another such victory would ruin the British army."

Guilford Courthouse proved to be the high watermark of British military operations in the Revolutionary War. Substantially weakened by his fruitless campaign against Greene, Cornwallis abandoned the Carolinas hoping for success in Virginia. At Yorktown, seven months after his victory at Guilford Courthouse, Lord Cornwallis would surrender to the combined American and French forces under Gen. George Washington.

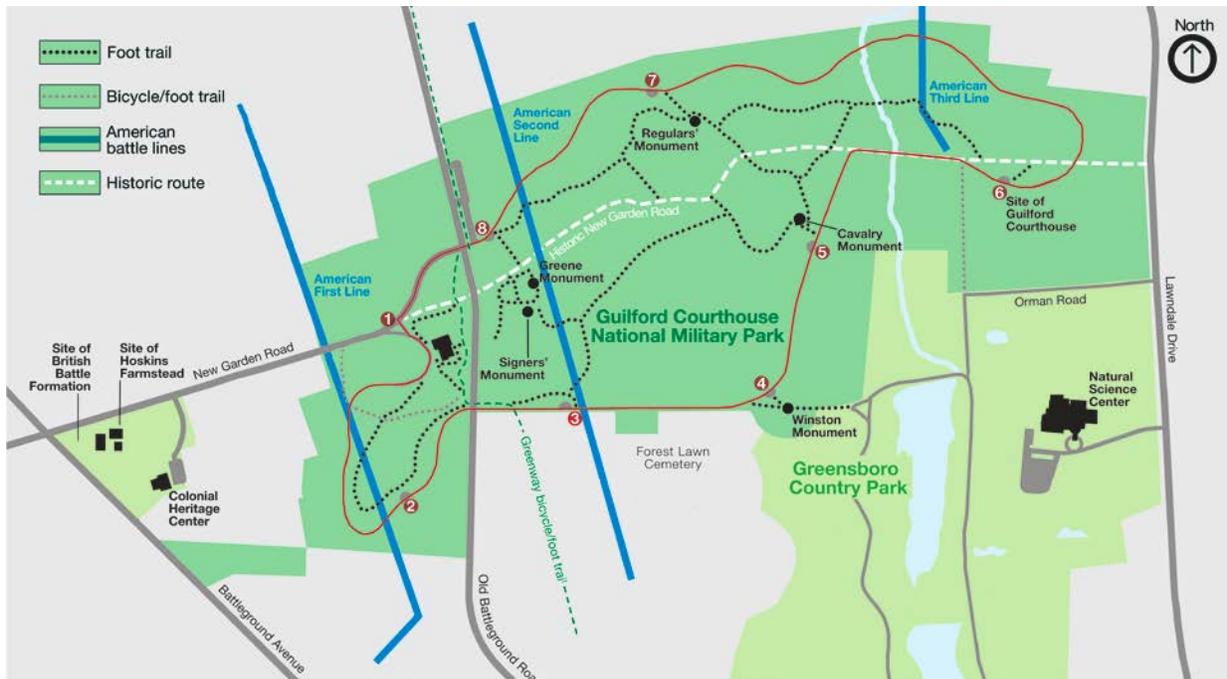
GUCO protects 250 acres of the approximately 1,000 acres of the actual battlefield. Within the park boundary are locations of the American First, Second, and Third lines, the probable site of Guilford Courthouse, and portions of the New Garden Road, the region's main transportation corridor at the time of the battle. The park also protects the Hoskins Farm site, where Cornwallis deployed his troops into battle lines to commence the attack on the American forces.

The purpose statement for GUCO was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on March 2, 1917. The purpose statement lays the foundation for understanding what is most important about the park.

The purpose of GUCO is to preserve for historical and professional military study as well as the benefit, education, and inspiration of the public, the battlefield, and the accounts of the Battle of Guilford Courthouse during the Southern Campaign of the American Revolution.

The following significance statements have been identified for GUCO. (Please note that the sequence of the statements does not reflect the level of significance.)

1. Guilford Courthouse was the first Revolutionary War battlefield protected by the federal government.
2. The outcome of the Battle of Guilford Courthouse was so costly to the British that Cornwallis ultimately had to change his whole southern strategy and abandoned his plans to capture the backcountry of North Carolina and South Carolina.
3. Cornwallis' retreat to Virginia freed Greene to turn southward and retake control of the South.
4. The British retreat set the stage for Cornwallis to be bottled up at Yorktown where his forces ultimately surrendered.



Map of the Park

# Chapter 2. State of the Park

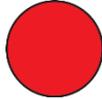
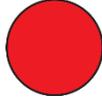
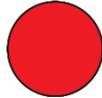
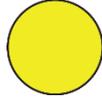
The State of the Park is summarized below for four categories—Natural Resources, Cultural Resources, Visitor Experience, and Park Infrastructure—based on a synthesis of the park’s monitoring, evaluation, management, and information programs, and expert opinion. Brief resource summaries are provided below for a selection of the priority resources and values of the park. Clicking on the [web](#) ► symbol found in the tables and resource briefs below will take you to the internet site that contains content associated with specific topics in the report.

The scientific and scholarly reports, publications, datasets, methodologies, and other information that were used as the basis for the assessments of resource condition are referenced and linked throughout the report and through the [internet version of this report](#) that is linked to the NPS [IRMA data system](#) (Integrated Resource Management Applications). The internet version of each report, and the associated workshop summary report available from the internet site, provide additional detail and sources of information about the findings summarized in the report, including references, accounts on the origin and quality of the data, and the methods and analytical approaches used in data collection and the assessments of condition. Resource condition assessments reported in this State of the Park report involve expert opinion and the professional judgment of park staff and subject matter experts involved in developing the report. This expert opinion and professional judgment derive from the in-depth knowledge and expertise of park and regional staff gained from their being involved in the day-to-day practice of all aspects of park stewardship and from the professional experience of the participating subject matter experts. This expert opinion and professional judgment utilized available factual information for the analyses and conclusions presented in this report. This State of the Park report was developed in a park-convened workshop.

The status and trends documented in Chapter 2 provide a useful point-in-time baseline measured against reference conditions that represent “healthy” ecosystem parameters, or regulatory standards (such as those related to air or water quality). We also note that climate change adaptation requires us to continue to learn from the past, but attempting to manage for conditions based on our understanding of the historical “natural” range of variation will be increasingly futile in many locations. Thus, these reference conditions, and/or our judgment about resource condition or trend may evolve as the rate of climate change accelerates and we respond to novel conditions. Our management must be even more “forward looking,” to anticipate plausible but unprecedented conditions, also recognizing there will be surprises. In this context, we will incorporate climate considerations in our decision processes and management planning as we consider adaptation options that may deviate from traditional practices.

## 2.1. Natural Resources

Air Quality  <a href="#">web</a> ►			
Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Ozone	Annual 4th-Highest 8-Hour Concentration		Ozone warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated ozone of 73.9 parts per billion (ppb), a level that normally warrants moderate concern ( <a href="#">NPS-ARD 2015</a> ). However, the condition has been elevated to significant concern because plants in Guilford Courthouse NMP are at a high risk for ozone damage ( <a href="#">Kohut 2007</a> ; <a href="#">Kohut 2004</a> ). For 2003–2012, the trend in ozone concentration at Guilford Courthouse NMP remained relatively unchanged (no statistically significant trend). <a href="#">List of ozone-sensitive plant species</a> .
Deposition	Sulfur Wet Deposition		Wet sulfur deposition warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated wet sulfur deposition of 3.3 kilograms per hectare per year (kg/ha/yr) ( <a href="#">NPS-ARD 2015</a> ). No trend information is available because there are not sufficient on-site or nearby wet deposition monitoring data.

	Nitrogen Wet Deposition		Wet nitrogen deposition warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated wet nitrogen deposition of 4.3 kilograms per hectare per year (kg/ha/yr) ( <a href="#">NPS-ARD 2015</a> ). No trend information is available because there are not sufficient on-site or nearby wet deposition monitoring data.
<b>Visibility</b>	Haze Index		Average visibility warrants significant concern. This condition is based on NPS Air Resource Division benchmarks and the 2008–2012 estimated average visibility of 9.6 deciviews (dv) above estimated natural conditions ( <a href="#">NPS-ARD 2015</a> ). No trend information is available because there are not sufficient on-site or nearby visibility monitoring data.
<b>Foliar Injury</b>	Risk based upon Kohut Assessment		Twenty-two ozone-sensitive plant species are found in the park ( <a href="#">Jernigan et al. 2012</a> ) and the park is at high risk for ozone injury to vegetation ( <a href="#">Kohut 2004</a> ).
	Number of Species with Injury		One species, spreading dogbane ( <i>Apocynum androsaemifolium</i> ), was found with injury in 2012 <a href="#">Cumberland Piedmont Network</a> (CUPN) sampling ( <a href="#">Jernigan et al. 2014</a> ).

## Water Quality

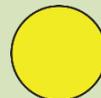


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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Water Chemistry</b>	pH		3% of pH measurements fell below the 6.0 to 9.0 range designated by NC for High Quality waters ( <a href="#">Meiman 2012</a> ). N=47
	Dissolved Oxygen		13% of measurements fell below the 5.0 mg/l level designated by NC for High Quality Waters. Low DO values are related to drought conditions ( <a href="#">Meiman 2012</a> ). N=45 (Trend line from Natural Resource Condition Assessment in progress)
	Water Temperature		0% of temperature measurements were above the 29 °C limit designated by NC as the standard for High Quality Waters ( <a href="#">Meiman 2012</a> ). N=47 (Trend line from Natural Resource Condition Assessment in progress)
	Specific Conductivity		There is no state standard for specific conductivity. GUCO waters reflect geology of its watersheds ( <a href="#">Meiman 2012</a> ). N=47 (Trend line from Natural Resource Condition Assessment in progress)
	Acid Neutralizing Capacity (ANC)		There is no state standard for ANC, the Tennessee standards is TMDL of 5 mg./l. GUCO waters have low ANC and thus cannot buffer acids ( <a href="#">Meiman 2012</a> ). N=47 (Trend line from Natural Resource Condition Assessment in progress)

	<i>Escherichia coli</i>		17% exceeded the USEPA <i>E. coli</i> standard for infrequent full contact recreational use of 576 CFU/100 ml. NC does not have an <i>E. coli</i> standard ( <a href="#">Meiman 2012</a> ). N=71 (Trend line from Natural Resource Condition Assessment in progress)
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## Forested and Wetland Communities



[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Exotic Plants</b>	Percent of forest plots with exotic species present; Exotic/Native species ratio (1m <sup>2</sup> subplot)		Based on CUPN 2011–13 forest vegetation monitoring, 100% of plots (n=20) contained multiple exotic species ( $\bar{x} = 5.63$ exotics/400m <sup>2</sup> plot). In addition to being widespread across the park the overall prevalence or frequency of exotics was also high. Within 1m <sup>2</sup> subplots nearly 20% of species detected were exotic. This was the highest recorded prevalence among the 14 parks within CUPN. There is insufficient data to establish a measured trend.
<b>Stand Structural Class</b>	Proportion of forest plots characterized as late successional (based on proportion of basal area in successive DBH size classes)		Based on CUPN 2011–13 forest vegetation monitoring, 14 of 20 plots were classified as successional or semi-natural communities. All of the remaining six plots were classified as either mature or late-successional. This metric looks at the relative size of trees within the plots (i.e., small, medium and large trees) and cut-offs still need to be evaluated for piedmont parks. Thus, results and conclusions should be considered preliminary at best at this time.
<b>Snag Abundance</b>	% of all standing trees that are snags and % of all large standing trees (≥ 30cm DBH) that are snags.		Based on CUPN 2011–13 forest vegetation monitoring, 9% of all standing trees (≥ 10 cm DBH) are snags, and nearly 5% of all large standing trees (≥ 30 cm DBH) are snags. Based on current metric cut-offs percentages greater than 10% in both categories are needed for a “Good” rating.
<b>Forest Composition and Regeneration</b>	Relative proportion of tree species composition by forest strata		Based on CUPN 2011–2013 forest vegetation monitoring data, the canopy at GUCO is comprised largely of oak/hickory (28%) and pine (28%). However, upland maple species clearly dominate the sapling (71%) and seedling (72%) strata. These data suggest a potential future shift in composition of the forests on GUCO. Oaks and hickories are the main source of mast for forest animal communities. If these are replaced by maples, the resulting animal community will be depauperate.
<b>Wetlands</b>	# and Area of Wetlands		<a href="#">Roberts and Morgan (2006)</a> identified two wetlands at GUCO, totaling an estimated 1.8 acres. A third area of hydric soils was also identified but its capacity to function as a wetland is diminished due to human alteration, it is now being returned to its natural state. No reference condition or metrics have been developed for this measure.

## Resource Brief: Invasive Exotic Plant Management

Nonnative invasive species are considered a major threat to native biodiversity in the southeastern U.S. and are likely the single greatest threat to the ecological health of vegetation communities within the park ([White et al. 2003](#)). It is of major importance for the park to continue active suppression of nonnative invasive species in order to preserve the native flora of the Piedmont region and provide proper information for public education.

Inventory studies at GUCO in 2003 estimated that at least 25% of the 346 plant species known to occur on the park are nonnative. Of these, 28 are either aggressive or potentially aggressive ([White et al. 2003](#)), posing severe/significant threats to the native flora of the region ([NatureServe 2014](#)). These species include, but are not limited to, Oriental bittersweet (*Celastrus orbiculatus*), multiflora rose (*Rosa multiflora*), Chinese privet (*Ligustrum sinensis*), wisteria (*Wisteria floribunda*), Russian/autumn olive (*Elaeagnus* spp.), Japanese honeysuckle (*Lonicera japonica*), Japanese stiltgrass (*Microstegium vimineum*), English ivy (*Hedera helix*), and kudzu (*Pueraria montana* var. *lobata*) ([White et al. 2003](#)).

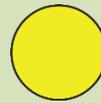
The park's major achievements toward controlling invasive exotic species include:

- **Mapping and Management Plan:** In 2009, North Carolina State University, in cooperation with the SE Exotic Plant Management Team, produced a Nonnative Plant Management Plan for GUCO, which included an exotic plant census of 62 species. They also produced GIS maps of each species, and in conjunction with the Southeast Region Exotic Plant Management Team, made treatment and monitoring recommendations for all species, prioritized each species' invasive potential and the ecology of GUCO ([O'Driscoll and Shear 2009](#)).
- **Monitoring:** In 2011, the Cumberland Piedmont Network of the NPS Inventory and Monitoring Division began monitoring forest vegetation at GUCO. Exotic species were found on all of the twenty permanent plots established, with an average of 5.6 exotics per plot. In doing the field work, the widespread prevalence of exotics was noted. Within the 1m<sup>2</sup> subplots, nearly 20% of the species detected were exotic, which is the highest number for the 14 parks of the Cumberland Piedmont Network ([CUPN 2013](#)).
- **Eradication and Control:** In recent years the management at GUCO initiated an active program to eradicate invasive species, initially using seasonals and local volunteers and, since 2003, with the assistance of the Southeast Exotic Plant Management Team (SE-EPMT). In the past 10 years, the SE-EPMT has treated over 215 canopy acres of more than 15 species of invasive, exotic plants at GUCO. The top three species currently being addressed by the SE-EPMT are: Oriental bittersweet (*Celastrus orbiculatus*), multiflora rose (*Rosa multiflora*), and Japanese privet (*Ligustrum sinense*). One species that is no longer in the top three is Japanese wisteria (*Wisteria floribunda*). In 2004, wisteria infested a total of 42.75 acres at GUCO covering mature canopy trees and spreading into both shaded understory and open field. As of 2010, the areas once infested by this plant require only biennial monitoring and spot treatment.

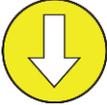


**Left: Periwinkle infestation; Right: Wisteria spreading into mature canopy**

# Wildlife Communities



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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Amphibians and Reptiles</b>	Species composition and diversity		Several expected species were not detected during the most recent survey efforts ( <a href="#">Reed and Gibbons 2005</a> ). Historical anthropogenic land use combined with low probability of immigration (due to surrounding land use) most certainly contribute to the lower than expected diversity. However, additional follow-up is needed.
<b>Fish</b>	Species composition and diversity		Only one fish inventory has taken place at GUCO ( <a href="#">Long 2005</a> ), in which a total of 14 fish species were found. This was surprisingly diverse, considering the impact to the streams within the park by past hydrologic alterations and current urbanization of surrounding area. An index of biotic integrity (IBI) was used to assess the condition of fish assemblages and habitat at GUCO using samples for Hunting Creek and an unnamed tributary. The IBI for both reaches of the unnamed tributary, since identified as Bloody Run, were “poor” and the IBI for Hunting Creek was “fair.” Severe drought in 2007 resulted in no surface water in most stream stretches post-inventory, leading to moderate confidence in knowledge and understanding of current fish community, and the possibility that some species were lost.
<b>Birds</b>	Species composition and diversity		According to <a href="#">Gerwin and Browning (2006)</a> , GUCO harbors good woodland bird habitat within suburban and commercial development. <a href="#">Gerwin and Browning (2006)</a> conducted surveys from January 2005 to June 2006, in which 65 species were observed. Overall diversity of species was in line with what would be expected in a primarily urban setting with the majority of species being permanent (i.e., year-round) residents
<b>Mammals</b>	Species composition and diversity		<p><a href="#">Kalcounis-Ruppell et al. (2007)</a> recorded 12 species of non-volant mammals at GUCO, all of which are relatively widespread and considered common in North Carolina. Since two previous surveys at GUCO (<a href="#">Dietrich 1976</a> and <a href="#">Shahady and Zirkle 1983</a>) native insectivore and rodent diversity has declined. Ten species reported in the earlier surveys were not found in the 2007 inventory, while abundance of common urban species has increased. Changes in habitat, such as increased fragmentation of the natural environment, the addition of two major roads further fragmenting the park itself and elimination of a significant marsh habitat since these previous studies may be responsible for these changes.</p> <p>GUCO has a relatively rich bat fauna but due to the dominance of big brown bats, the diversity is relatively low (<a href="#">Loeb 2007</a>). This pattern is common for urban parks. Because the park supports a number of species (including reproductive populations of at least two species), it is likely an important refuge in the rapidly urbanizing landscape surrounding the park.</p>

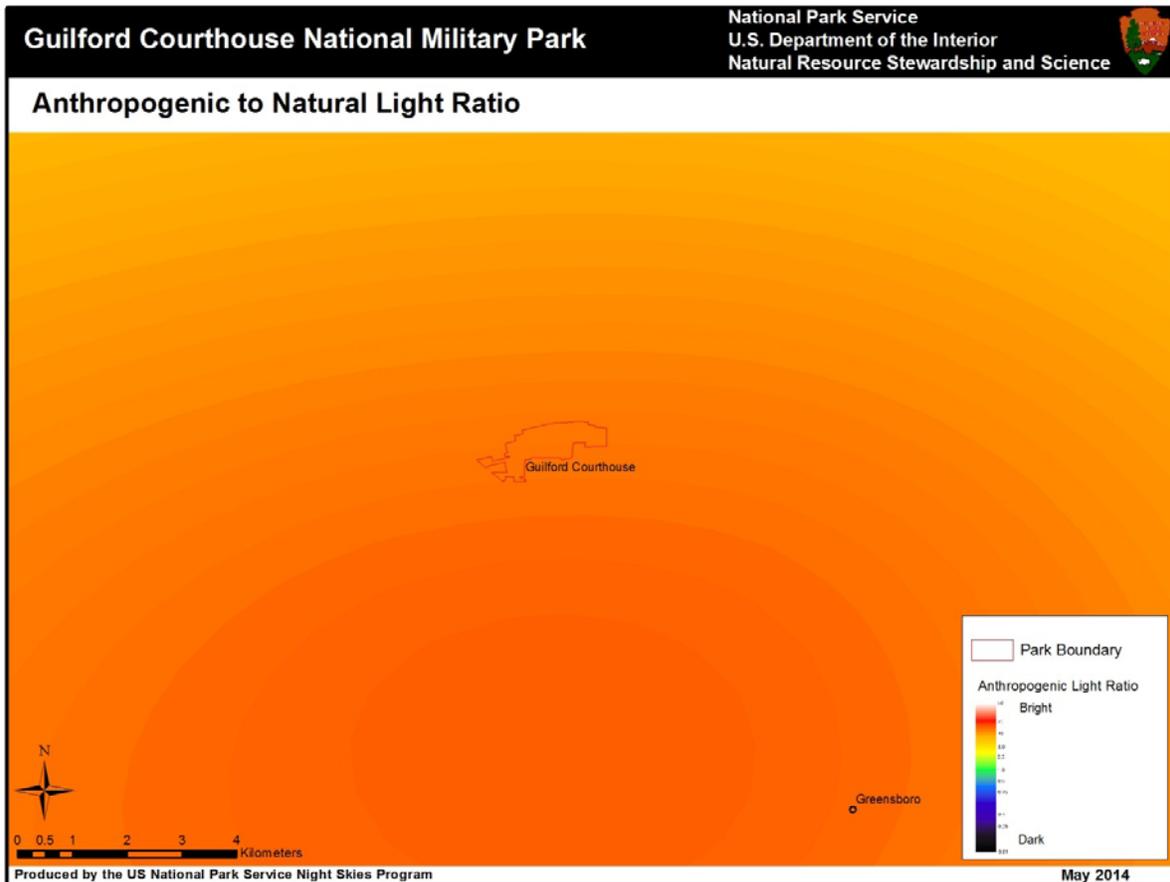
# Dark Night Sky



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The night sky has been a source of wonder, inspiration, and knowledge for thousands of years. Unfettered night skies with naturally occurring cycles of light and dark are integral to ecosystem function as evident by the fact that nearly half the species on earth are nocturnal. The quality of the nighttime environment is relevant to nearly every unit of the NPS system as the nighttime photic environment and its perception of it by humans (the lightscape) are both a natural and a cultural resource and are critical aspects of scenery, visitor enjoyment, and wilderness character. Proactive work with the city to enhance awareness and promote directed downward lighting and planned lightscaapes/dark night skies would benefit the nocturnal wildlife in the Park, and surrounding areas. Maintaining dark skies would enable future nighttime uses of the Parks such as star gazing, and other nighttime interpretive programs.

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Anthropogenic Light	Anthropogenic Light Ratio (ALR) — Average Anthropogenic Sky Glow: Average Natural Sky Luminance		The Park's surrounding land has changed from a rural to urban character over the past century. A switch from rural to suburban began in the 1960s. During the 1980s and 90s, through to the present has brought a change from suburban to urban, and now appears to be stabilized in a mixed urban/suburban pattern. As a result we have rated this a significant concern and stable. Confidence could be increased with quantitative data from the night skies team.



Regional ALR near Guilford Courthouse National Military Park

## Soundscapes

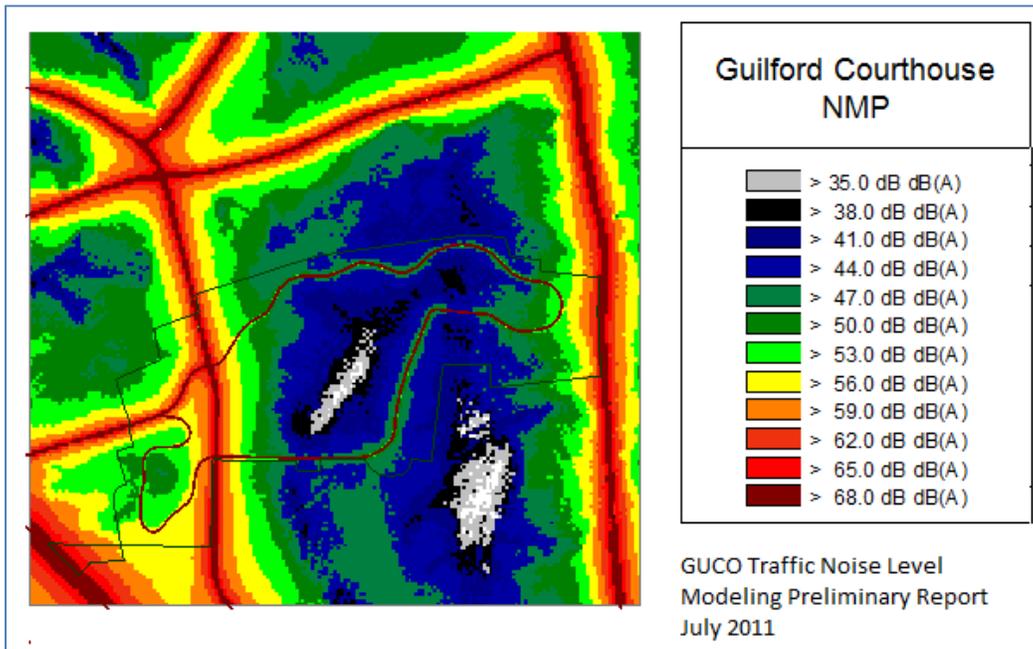


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Every unit in the national park system has a unique acoustic environment, and every unit should understand what its desired acoustic environment would be. The quality of the acoustic environment affects visitor experience and ecological function. Acoustic resource condition, both natural and cultural, should be evaluated in relation to visitor enjoyment, wilderness character, ecosystem health, and wildlife interactions. Based on these considerations and the character of the park, the acoustic resource condition at GUCO warrants moderate concern under urban criteria. Learn more in the document [Recommended Indicators for Acoustic Resource Quality](#) the NPS Natural Sounds and Night Skies Division [website](#), and the figure below.

GUCO has a unique acoustic environment because of the impact of noise from roads within the park. Noise from traffic and nearby population growth is attributed to increases in noise and other traffic impacts over time (Parsons 1998, NPS 2011). Sound pressure levels over certain thresholds can impact human health, speech, and listening ability. A sound level of 52 dBA or more can impact speech for interpretive programs while sound levels of 60 dBA or more will interrupt normal conversation. The 52 dBA threshold is chosen for this report to demonstrate when traffic noise will begin to impact visitor experience by causing the audience to miss portions of an interpretive program. Further, human responses can serve as a proxy for potential impacts to other vertebrates because humans have more sensitive hearing at low frequencies than most species ([Dooling and Popper 2007](#)).

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>L<sub>50</sub> Impact</b>	L <sub>50</sub> dBA – a measure of noise contributed to existing acoustical environment by anthropogenic sources.		The mean L <sub>50</sub> Impact (L <sub>50</sub> dBA), calculated as difference between existing ambient and natural ambient models, is 10.4 dBA. This indicates that the condition of the resource warrants moderate concern under urban criteria. Trend is deteriorating due to nationwide increases in ground-based ( <a href="#">U.S. Federal Highway Administration 2013</a> ) and aircraft traffic in recent decades ( <a href="#">Federal Aviation Administration 2010</a> ).
<b>Speech Interference for Interpretive Programs</b>	Modeled Leq sound pressure level from traffic counts		One-hour equivalent sound pressure levels were predicted in 2011 by modeling noise from traffic counts during commuter traffic hours. In some areas of the park, sound levels are predicted to be above 52dBA, which is the sound level where an audience could have difficulty hearing portions of an interpretive program. Traffic and noise are projected to increase over time. Therefore, the noise and related impact are predicted to increase as well.



Predicted existing Leq (hourly equivalent sound levels) due to traffic during peak commuter traffic hours of 9:00–10:00 am or 4:00–5:00 pm. There are the time periods when Old Battleground traffic noise levels are expected to be highest.

## Resource Brief: Historical and Projected Changes in Climate at Guilford Courthouse National Military Park

Climate change, in conjunction with other stressors, impacts all aspects of park management from natural and cultural resources to park operations and visitor experience. Effective planning and management must be grounded in our comprehension of past dynamics as well as the realization that future conditions may shift beyond the historical range of variability. Climate change will manifest itself not only as shifts in mean conditions (e.g., increasing mean annual temperature and sea level) but also as changes in climate variability (e.g., more intense storms and flooding). These changes may alter the vegetation composition and structure of cultural landscapes and accelerate weathering, deterioration, and loss of other cultural resources. In other words, land managers are dealing with both rapid directional change and multiple uncertainties (see references in [Fischelli 2014](#)). Understanding climate change projections and associated levels of uncertainty will facilitate planning actions that are robust regardless of the precise magnitude of change experienced in the coming decades.

### Historical climate trends

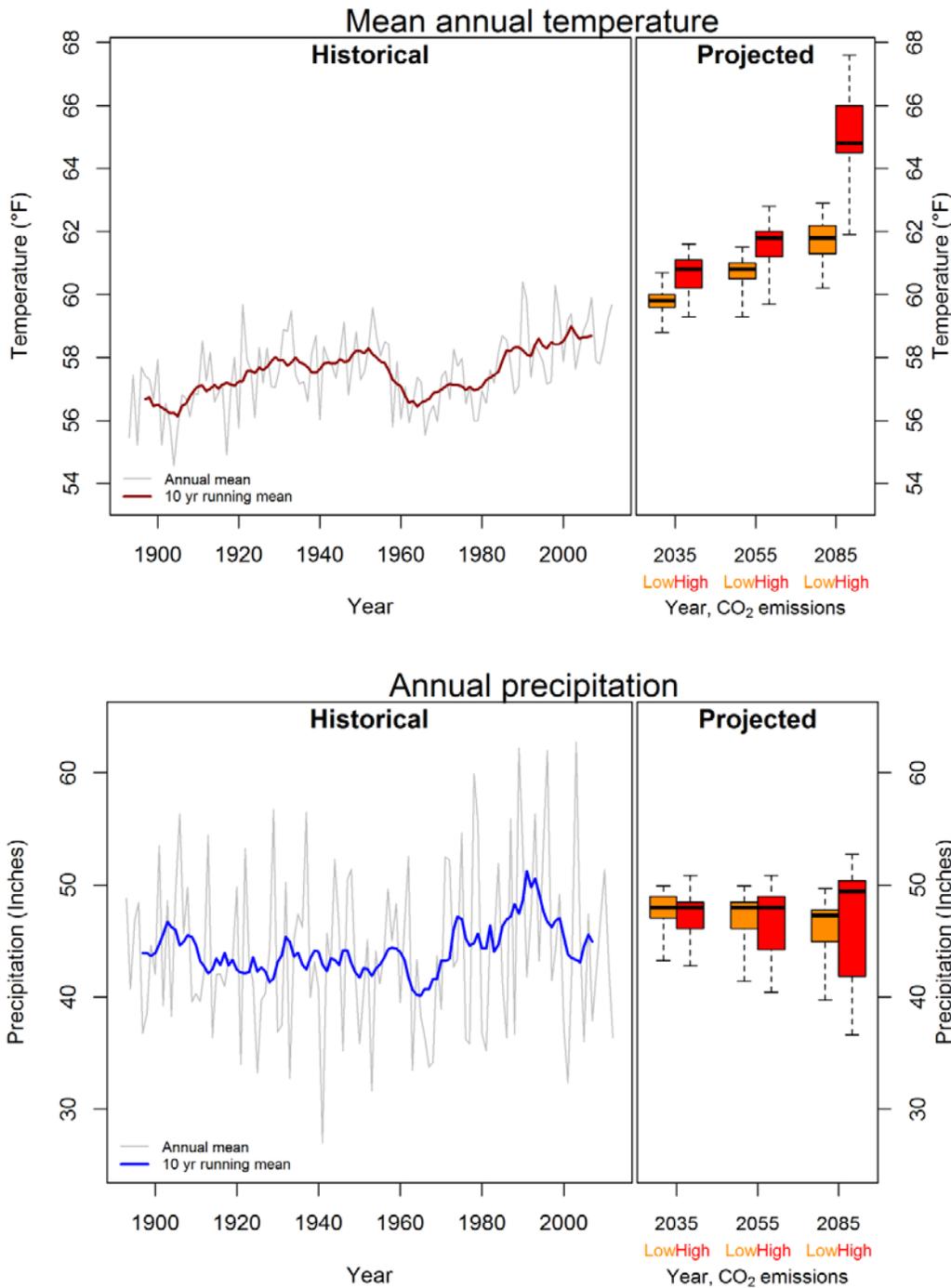
Historical climate trends (1893–2012) for GUCO (see [Fischelli 2014](#) for more details) are based on data from a long-term weather station (Reidsville, NC) acquired from the United States Historical Climatology Network ([www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)). Over the entire 120-year record, mean annual temperature increased at a rate of +0.14 °F per decade (see figure below). The rate of warming has increased substantially since 1960: +0.5 °F per decade. Annual precipitation showed strong interannual variability and no significant increasing or decreasing linear trend across the entire record (see figure below).

### Future climate projections

Future climate projections for the area including GUCO are from multi-model averaged data (see references in [Fischelli 2014](#)). Mean annual temperature, compared with the 1971–1999 average, is projected to increase 3–4 °F by mid-century and 4–7 °F by the end of the century, depending on the greenhouse gas emissions scenario (see figure below). Past greenhouse gas emissions, long residence times of these gases in the atmosphere, and our current emissions trajectory suggest that climate change will be substantial. Warming by mid-century is projected for all seasons, with the greatest increases likely in summer and fall. There is broad agreement among climate models in the direction and general magnitude of warming over the coming decades. Total annual precipitation may increase slightly by mid-century (see figure below); however, precipitation variability is likely to remain large over the coming decades, and there is greater uncertainty in the direction of precipitation than temperature changes.

In addition to warmer mean temperatures and changes in annual and seasonal precipitation, climate change will exhibit itself in many other ways within the region including GUCO (see references in [Fischelli 2014](#)). These include more frequent heat waves, droughts, floods, and an extended frost-free season. The annual number of days with maximum temperatures > 95 °F is projected to increase 20–25 days by mid-century while the number of days with minimum temperatures below freezing is projected to decrease by 20–25 days (high [A2] emissions scenario 2041–2070 compared with 1980–2000). Small changes in total precipitation may mask large shifts in the precipitation regime and associated impacts to ecosystems. The annual number of days with heavy rainfall (> 1 inch) is

projected to increase by 10–20%, while the maximum number of days between rain events may increase by a few days (high [A2] emissions scenario, 2041–2070 compared with 1980–2000). Significantly warmer temperatures and a more variable precipitation regime may lead to both more frequent droughts and more severe flooding and erosion.



Historical and projected mean annual temperature and annual precipitation for GUCO. Historical data (1893–2012) are from the Reidville, NC weather station ([www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)). Projected climate change (30 year means) for the region including the park (data from Kunkel et al. 2013, see Fisichelli 2014 for references) are for three future time periods centered on 2035 (2021–2050), 2055 (2041–2070), and 2085 (2070–2099). Two greenhouse gas emissions scenarios are presented, the **low** (B1) and **high** (A2) scenarios (IPCC 2007). Projected climate boxplots indicate the variability in future projections among 14–15 CMIP3 climate models. Values for the area including the park are based on the mean model output for that location and the range of climate model projections for the region: the bold horizontal black line represents the mean among all models, the upper and lower bounds of the boxes indicate the 25th and 75th percentile model output values and the whiskers show the minimum and maximum values.

## Resource Brief: Climate Change Effects at Guilford Courthouse National Military Park

Climate change is ongoing and past greenhouse gas emissions, long residence times of these gases in the atmosphere, and our current emissions trajectory suggest that future climate change will be substantial (Wigley et al. 2005). Even if greenhouse gas emissions are dramatically reduced in the future, GUCO will continue to experience impacts from ongoing changes. Although the precise magnitude of these changes cannot be predicted, many trends are already detectable and can be incorporated into park planning.

Warming temperatures mean not only increases in average temperature but also increases in extreme daily high temperatures (Kunkel et al. 2013). A shift of only a couple of degrees from mid 80s (°F) to low 90s can move visitors from a “Caution” to “Extreme Caution” zone according to the National Oceanic and Atmospheric Administration’s Heat Index. With higher temperatures more frequent and occurring over a longer summer season, educating visitors of the dangers of heat and maintaining potable fresh water on-site may become more important for visitor safety. Increases in ozone are also linked to more heat waves. This is particularly important for Guilford Courthouse due to its urban setting and predicted enhanced urban heat island effects.

Heat can be a key driver of forest impacts and insect pest outbreaks on urban trees (Meineke et al. 2013). Warming temperatures are predicted to increase evapotranspiration, drying forest vegetation and increasing wildfire risk. Increased evapotranspiration may also reduce streamflow (Ingram 2013). Longer growing seasons will increase the risk of insect outbreaks and expand ranges of some species such as scale insects and cankerworm (Ingram 2013, Frank 2014).

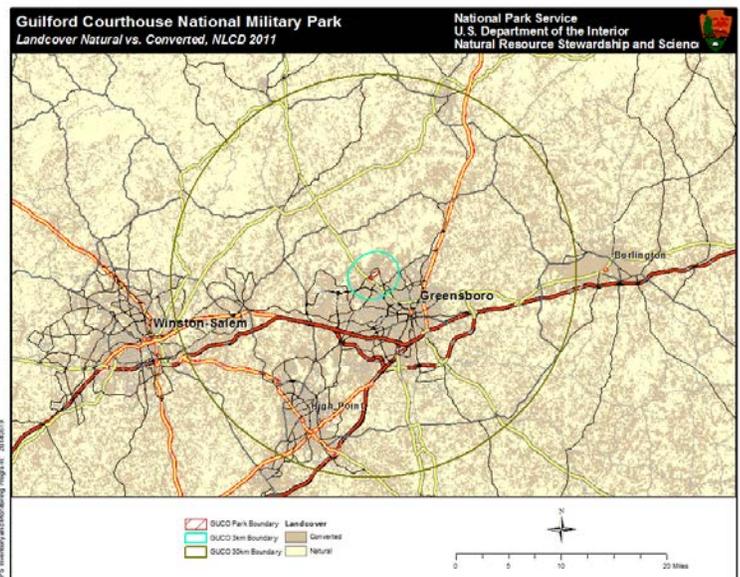
Climate change may increase risk from invasive plant species. Longer growing seasons and shorter cold snaps may allow invaders to expand into new ranges (Ingram 2013). Undesirable species likely to benefit from climate change include kudzu (*Pueraria lobata*) and privet (*Ligustrum sinense*; *L. vulgare*) (Bradley et al. 2010).

## Resource Brief: Landscape Context of Guilford Courthouse National Military Park

Changes in natural land cover provide a general indication of overall landscape condition and offer insight into potential threats and opportunities for conservation (Monahan et al. 2012). Areas with over 60% of natural land cover intact are considered in “good” condition, while those with less than 30% are considered “of concern” (With & Crist 1995, McIntyre & Hobbs 1999, Wade et al. 2003). Based on the National Land Cover Dataset (2011), the 30 km area surrounding GUCO contains 48% natural cover and is therefore considered “fragmented.” This is mainly a result of development and expansion of urban areas, such as the growing “Triad Cities of North Carolina” (Greensboro, Winston-Salem, and High Point) and Burlington to the east.

Some of the potential threats from nearby development include:

- Air quality issues, such as an increase in ozone sources from Greensboro traffic and the nearby Triad Airport. These sources emit ozone precursors, which can raise ozone to unhealthy levels causing respiratory symptoms in visitors and foliar injury to sensitive plants. There are neighboring ozone monitors to help assess this situation, and the Cumberland Piedmont Network is also monitoring ozone levels within the park every seven years.
- Water quality issues: Two streams flow into the park from the south. Bloody Run flows in from the large graveyard to the south west, and joins Hunting Creek, which flows into the park from Greensboro Country Park, draining several small lakes. Pollution from urban sources may impact the water quality and the aquatic communities of Guilford Courthouse. Water quality monitoring is conducted at the park every other year to detect potential changes.
- Natural communities and the island effect: The park has been surrounded by development over time, and is further fragmented by two major roads. Surveys in 1976 and 1983 documented small vertebrate species that are now likely missing from the park (Kalcounis-Ruppell et al. 2007). It is unlikely these species will reestablish themselves naturally.



**Natural and converted land cover in the year 2011 occurring within 30 km of Guilford Courthouse National Military Park.**

## 2.2. Cultural Resources

Archeological Resources  <a href="#">web</a> 			
Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Knowledge</b>	Percent of sites with known date ranges associated with a research theme.		100%. Six of the 6 known sites have been associated with a time period and research theme.
<b>Inventory</b>	Percent of park adequately surveyed.		Approximately 11% of the park's land has been adequately surveyed using subsurface testing methods. Also, about half of the park has been covered by geophysical surveys such as metal detecting and ground penetrating radar. All of the sites and all but one survey have been digitized into GIS. That survey will be added when the permitted archeologist submits the field, GIS, and other digital files. These submittals are overdue.
<b>Documentation</b>	Percentage of known sites with adequate National Register documentation.		Of the 6 known sites, the documentation for 2 (Guilford Battleground and Hoskins Farm) are considered Good and two (Martinville and Great Salisbury/New Garden Road) are rated Fair. The remaining 2 (Old Bruce Road and New Salisbury Road) are rated as Poor.
<b>Condition</b>	Percentage of archeological resources in good condition.		100 percent of the known sites were assessed as Good in 2013.

### Resource Brief: Looking for Guilford Courthouse

#### Excavation of the possible structure at Stop 6

The goal of this archeological project was to explore one of the two traditional locations of the Guilford Courthouse through excavation and ground penetrating radar (GPR). During the excavation, three possible 18th-century structures were uncovered. Also other possible linear features, pits, and a possible cellar were discovered. Nine thousand artifacts were recovered from these excavations. A jaw harp, a soldier's ramrod thimble, a pair of cufflinks, a Revolutionary War horse bit, an 1870s locket, and Chinese export ceramics were found during the project.



**Left:** Archeology Day at GUCO in partnership with UNCG Anthropology Department; **Right:** 18th- and early 19th-century artifacts found during the excavation, including Westerwald stoneware and annular ware.



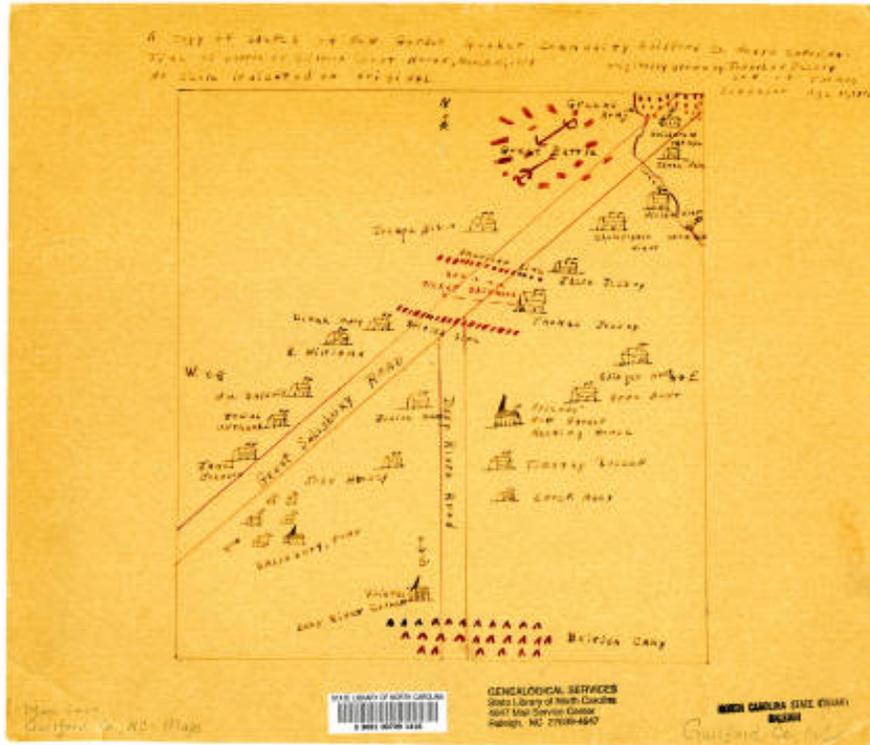
Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<p><b>Knowledge</b></p>	<p>Sufficient research exists to understand the relationship of the park's ethnographic resources and the historic contexts.</p>		<p>To date there is an active Ethnographic Overview and Assessment project underway at GUCO under the direction of PI- Dr. David Griffith from E. Carolina State University.</p> <p>In order to manage cultural and natural resources in an effective, culturally informed manner, the National Park Service requires the documentation and analysis of ethnographic information regarding people with traditional and/or historic ties to specific park areas. This information includes tangible and intangible resources that help connect people/communities to parks via the stories they tell/share about their association with the park (i.e., songs, rituals, recipes, burial practices, leisure activities; usage patterns and instructions for using/maintaining tools, equipment and other tangible resources...). Among other applications, ethnographic projects identify culturally sensitive areas and/or issues in order to develop and implement culturally appropriate resource management strategies.</p>
	<p>Appropriate studies and consultations document ethnographic resources and uses with regards to the park.</p>		<p>The Ethnographic Overview and Assessment project that is underway by Dr. David Griffith of East Carolina University, seeks to document the ongoing relationships between associated communities (resident, neighbors, predominant religious groups including Quakers, Moravian, Presbyterian, Lutheran, and Reformed, African American, Native American, women, commemorative and patriotic groups, etc.) that relates to the resources associated with GUCO. The study will identify groups who have both traditional and contemporary ties to the park and their resource uses and concerns. The results of the study will prepare managers to anticipate resource use issues that may affect their parks, and place them in a better position to understand and deal with such issues in the future.</p>

## Resource Brief: Quakers and the Battle of Guilford Courthouse

***“About 70 of the wounded, not in a condition to travel, were left at the Quakers’ Meeting-house.” —Charles Stedman 1794***

Records indicate that few of the practicing doctors in Colonial America had formal training. Many prescribed calomel, mercury, and quinine. Some applied Native American herbal remedies. Bleeding, sweating, cupping and blistering, cold baths, and laxative use were common treatments. There were few, if any, dentists. Soldiers injured on the battlefield had little chance of recovery. The Battle of Guilford Courthouse proved to be particularly deadly.

The aftermath of all battles was dreadful. However, the battle of Guilford Courthouse was particularly bad. Dead and dying lay over a thousand acres of ground. Shortly after the last shots were fired, torrential rain fell. The rain complicated locating and caring for the wounded. Doctors and medicines were in short supply. With the help of neighboring Quakers and others, the British cared for both sides. A British surgeon amputated arms and legs, extracted lead balls, and set broken bones. Guilford Courthouse and houses within an eight-mile radius were used as hospitals. Many wounded died from infections and blood poisoning. A smallpox epidemic claimed more lives after the battle—soldier and civilian alike. The local Quakers treated the wounded at the Meeting-house and also on the battlefield for weeks following the battle.



Copy of a Sketch of New Garden Quaker community; “Originally drawn by Jonathan Jessop, son of Thomas. Jonathan, age 10, 1781.”; Hand-drawn.; Shows battle sites, buildings, property owners, roads, and natural features.



Photo of the Quaker meeting house that was built in 1791

# Cultural Landscapes



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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Knowledge</b>	Sufficient research exists to understand the relationship of the park cultural landscapes to the historic contexts of the park.		Yes. A Cultural Landscape Report (CLR) was completed in 2003. The CLR includes a site history and evaluates the National Register integrity of the landscape. This report contains research that places the cultural landscape in historical context, provides baseline documentation, and relies on scholarship.
	Adequate research exists to document and preserve the cultural landscape of the park.		Yes. The CLR documents the historic and existing conditions and provides treatment recommendations for the preservation of contributing resources.
<b>Inventory</b>	The scope of cultural landscapes in the park is understood and a determination has been made whether or not they are a fundamental resource.		The park Foundation Document identifies the Guilford Courthouse Battleground landscape as a Fundamental Resource and includes specific mention of the Three American Battle Lines, Hoskins Farm Site, Courthouse Site, Major General Greene Monument, and the New Garden Road as Fundamental Resources. These resources are significant and part of a National Historic Landmark (NHL) district.
	Percentage of landscapes eligible for the National Register with accurate, complete, and reliable Cultural Landscape Inventory (CLI) data.		In 2005, two Cultural Landscape Inventories for Guilford Courthouse NMP were certified, the Guilford Courthouse and the Superintendent's Residence and Utility Group landscapes (66%). The CLI was signed by the park Superintendent and the North Carolina State Historic Preservation Officer (SHPO). The CLIs were recertified in 2011 with updated condition assessments. Since 2005, the park acquired the Hoskins Farmstead. This cultural landscape has National Register documentation but has not been inventoried. The Hoskins component landscape represents one third of the cultural landscapes at the park uncertified (33%)
<b>Documentation</b>	Percentage of cultural landscapes with adequate National Register documentation.		66% have adequate National register documentation. Cultural landscapes are addressed in the National Register nomination for Guilford Courthouse and Hoskins Farmstead, though vegetation and other landscape characteristics could be described in greater detail.

## Resource Brief: Reforestation at Guilford Courthouse

During the battle much of the fighting occurred in the forest. The landscape and topography became an integral part of the battle tactics and how each side approached the battle. At that time, portions of the forest would have been very dense with low visibility. The soldiers had to come within feet of each other in order to get an accurate shot without hitting any trees.

The British were accustomed to engaging their enemies with straight lines, but because the forest was so dense they had to abandon this tactic at times to move around trees and through the forest. Both armies had cannons that they had to drag through the woods, across creeks, and up hills. The trees made battle more difficult for everyone because they had to fight around them.

Currently, approximately ten percent of the park is unforested. At the time of the battle, “The country in general presented a wilderness, covered with a tall woods, which were rendered intricate by shrubs and thick underbrush; but which was interspersed here and there, by a few scattered plantations.” (British *Annual Register of 1781*). Cornwallis was but one of many to fall victim to forest-disorientation, a condition which likewise affected whole regiments. Greene, who elected to fight a defensive battle, believed that he could derive tactical advantages from the landscape’s patchwork of fields and forest.

The CLR recommends a more accurate depiction of battle-era landuse patterns. For example, opening up the wooded areas west of the first and third line positions to simulate the field systems that existed there at the time of battle. Inversely, replanting is proposed for inappropriate clearings, such as the former third line (or “Schenck’s”) field, which would have been forested in 1781.

Per the recommendations in the Cultural Landscape Report, the areas at Schenck’s field, the Hessian Tract, Stop 4, and the southeast corner have been planted with a variety of trees, including sweet gum, maple, oak, and hickory.

Thanks to the reforestation efforts of the National Park Service, this generally denuded condition has been ameliorated and the prevailing woodland setting largely “restored.” It should be noted, nonetheless, that the present patchwork of clearings punctuating the park’s forest resources does not directly or even loosely correspond to 1781 patterns. The majority of the clearings associated with the park’s commemorative and visitor service areas (e.g., the Greene Monument area, the former third line field, and the immediate vicinity of the visitor center), for instance, would have been vegetated at the time of the battle.



**Treatment recommendation for Cultural Landscapes. Left: initial reforestation (2002); Right: after 12 years, 2014.**

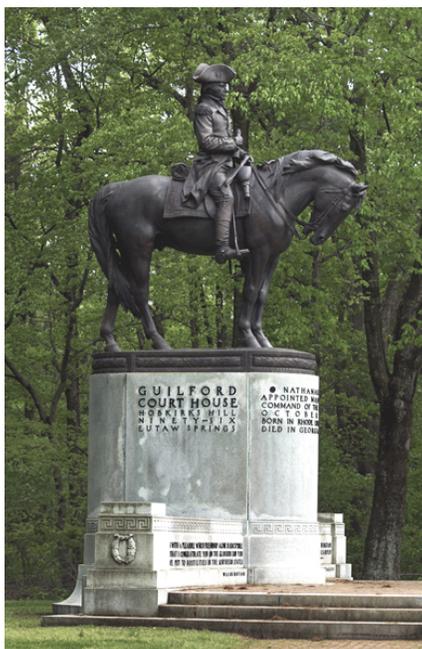
# Historic Structures



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Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Knowledge</b>	Percentage of historic structures evaluated using appropriate historical contexts.		A Historic Resource Study (HRS) is under contract in FY 2014 to create new historical contexts for all its historic structures via PMIS. Historic Structures Report (HSR) via PMIS 182246 is under contract in FY 2014 for the Coble Barn and the Hoskins Farmhouse.
<b>Documentation</b>	Percentage of historic structures with adequate National Register documentation.		The existing NR nomination and additional documentation associated with the battle and its commemoration are adequate. The National Register nomination for the Hoskins House Historic District needs to be modified to reflect the 2009 University of Tennessee dendrochronological research (see History below).
	All historic structures have been recorded commensurate with their significance and mandated purposes.		Historic Structure Reports are under contract per an approved PMIS statement (funded for FY 2014 PMIS 182246) for the Hoskins House and the Coble Barn both within the Hoskins House National Historic District.
<b>Condition</b>	Percentage of historic structures in good condition.		81% of the historic structures listed in the LCS (26 of 32) are in good condition. The structures at the Hoskins House Historic District (4) need to be assessed for condition. The Coble Barn is being undermined by a groundhog. Neutralization of the situation is underway.

## Resource Brief: General Greene Monument



National Park Service Historian Ronald F. Lee, in his seminal work *The Origin and Evolution of the National Military Park Idea* (p.45), identifies the passage of the Greene Monument bill as the first step in the creation of GUCO. In 1910, Senator Lee S. Overman introduced another Greene monument bill—13 were introduced between 1888 and 1908. This bill passed and was signed into law 13 February 1911. This act provided thirty thousand dollars to erect a suitable monument at the Guilford Battle Ground, provided the Battle Ground Company would deed to the United States sufficient land on which to erect the memorial. This was done and on 3 July 1915 the Nathanael Greene Monument was dedicated. The third of an acre donated for this heroic equestrian memorial provided a Federal toehold and perhaps inclined Congress to respond favorably when Representative Charles M. Stedman introduced another bill to establish GUCO. Signed into law 2 March 1917, this act provided:

That in order to preserve for historical and professional military study one of the most memorable battles of the Revolutionary War, the battlefield of Guilford Courthouse, in the State of North Carolina, is hereby declared to be a national military park.

# History



[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<p><b>Knowledge</b></p>	<p>Sufficient research is conducted to understand significance of site.</p>		<p>The historical significance of GUCO has been documented in a series of publications and in National Register and National Historic Landmark nominations. The works of Charles E. Hatch, including <i>Guilford Courthouse And Environs</i> (1970) and <i>The Battle of Guilford Courthouse</i> (1971), although relatively old, remain foundational documents. The original National Register Nomination (1978) and the additional documentation submitted for the same (1996) preceded the final National Register documentation which was a National Historic Landmark nomination signed by the Keeper in 2001. Finally, a 1997 Long Range Interpretive Plan applied the then new NPS Thematic Framework. The park still needs a Historic Resource Study to round out its historical documentation.</p>
	<p>Sufficient research is conducted to establish the reasons for park creation and site history.</p>		<p>The park's 1995 Administrative History adequately documents the reasons for GUCO's creation and the site's history up to that time. That said, the administrative history of the park from 1995 to present needs to be addressed and the 1988 Hoskins House Historic District NR nomination needs to be amended to reflect the results of dendrochronological analysis performed in 2009. NR nomination information will be updated as part of PMIS 39486.</p>
	<p>Research at the appropriate level precedes planning decisions involving cultural resources.</p>		<p>The acquisition by GUCO of the Tannenbaum Historical Park, now known as the Hoskins House Historic District, brought several historic structures into park management. The Hoskins House Historic District nomination erroneously associates the property with the Revolutionary War and needs to be amended accordingly. NR nomination information will be updated as part of PMIS 39486. Overall, the park does conduct appropriate research prior to planning.</p>
<p><b>Inventory</b></p>	<p>Percentage of cultural resources listed in appropriate Servicewide inventories, including the National Register.</p>		<p>32 of 36 (88%) of the parks historic structures are listed in the List of Classified Structures. Draft LCS records for the Hoskins House Historic District will be certified in 2014. The National Register Nomination for the latter needs to be amended to reflect the dendrochronology performed in 2009 that confirmed a later date for the property than that described in the existing NR documentation.</p>
<p><b>Documentation</b></p>	<p>Percentage of historic properties with adequate Nat'l Register documentation or with Determinations of Eligibility.</p>		<p>32 of 36 (88%) of the parks historic structures are listed in the List of Classified Structures. Draft LCS records for the Hoskins House Historic District will be certified in 2014. The National Register Nomination for the latter needs to be amended to reflect the dendrochronology performed in 2009 that confirmed a later date for the property than that described in the existing NR documentation. NR nomination information will be updated as part of PMIS 39486.</p>

## Resource Brief: Early Preservation Efforts

The first local effort to commemorate the battle of Guilford Courthouse was initiated in 1857 when a group called the Greene Monument Association was organized and began fundraising activities to erect a memorial to the American general in his namesake city. The Association's work was interrupted by the outbreak of civil war and interest in commemorating the glories of the Revolutionary generation was effectively deflected until the end of the Reconstruction period.

1876 was a watershed year in that it combined the centennial of the Declaration of Independence with the tainted presidential election of Rutherford B. Hayes. The withdrawal of the last Federal occupation troops from the South the following year inaugurated an era of national reconciliation. Patriotism and nationalism were on the ascendant in this period and widespread public support developed for the establishment of memorials to George Washington, the Revolutionary War generation and the principles for which they fought; principles that were the common heritage of both North and South.

First fruit of this impulse included centennial year Congressional appropriations of \$244,000 to erect monuments at Yorktown, Bennington, Saratoga, Newburg, Cowpens, Monmouth, Groton, and Oriskany. Similar bills were introduced but not acted upon for Brandywine, Bemis Heights, King's Mountain, and Guilford Courthouse.

Further evidence of the nation's interest in commemorating the founding generation's struggles was manifested by the action of the House of Representatives' Committee on the Library in commissioning historian Benson J. Lossing to make recommendations regarding Revolutionary War sites that were deserving of monumentation. His report, submitted 2 February 1884, identified fifteen battlefields "of considerable note" that should receive funding for "substantial monuments." Guilford Courthouse was identified as one of these sites. A bill, H.R. 2475, to erect the recommended monuments was introduced but not acted upon. In 1917 the act that created GUCO gave the Secretary of War responsibility for preserving the site "for historical and professional military study."



MONUMENT TO THE MARYLAND LINE ON GUILFORD BATTLE-FIELD,  
DEDICATED 15 OCTOBER, 1892.

# Museum Collections



[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Inventory	The scope of museum collections in the park is understood. All resources have been surveyed to determine their appropriateness for inclusion in the museum/archive collection.		Yes. A Collection Management Report was completed in FY 2011 and signed in FY 2013. During that process, the Scope of Collection Statement was reviewed, updated, and approved by the park Superintendent.
	Percentage of objects accessioned and cataloged.		Currently, 28.06% of the museum and archival collections are cataloged. The archival collection backlog increased after a survey was completed as part of the Collection Management Plan. 279.5 LF—or 447,200 items—was surveyed in FY 2012 by History Associates, Inc. That backlog number needs to be added to ICMS so it's reflected accurately on the Annual Submission and the Collection Management Report (CMR). The GUCO museum collections are considered a Fundamental Resource for the park and are documented as such in the GUCO Foundation Document (FY 2013). It is critical for the collection accountability for the backlog cataloging to increase.
Documentation	Park has current and appropriate baseline documentation (Scope of Collections Statement, Collection Management Plan, Housekeeping Plan(s), IPM Plan(s), EOP, Security and Fire Safety Plan(s), and Conservation Survey(s).		<ul style="list-style-type: none"> <li>• Collection Management Plan – 2012, signed FY 2014</li> <li>• Fire/Security survey – 2001</li> <li>• Structural Fire Plan – 2014, the museum collections are identified in the plan as a resource to be protected. The plan can be augmented to add in-depth information for prevention and preservation of the museum collection, and refer to the MEOP for specific information.</li> <li>• Collection Condition Surveys – 1994, additional follow up conservation survey and object treatment work completed in 2000, 2012 (part of the CMP).</li> <li>• Archival Survey – 2012 as part of the CMP; 2012 through History Associates, Inc. as part of the WASO archives Initiative.</li> <li>• Collection Storage Plan – 2012 as part of the CMP</li> <li>• Museum Emergency Operation Plan – 2008 (draft)</li> <li>• Museum Disaster Plan – 2013</li> <li>• Scope of Collection Statement – 2011</li> <li>• Integrated Pest Management Plan (IPM) – not currently part of the park IPM plan. However, the IPM coordinator is sensitive to the needs of the museum program and will work with the historian and the SER museum program to include the exhibits and museum storage in an updated plan.</li> </ul> <p>Overall, the park is in good shape with baseline documentation. The IPM plan, Fire/Security, and MEOP need to be updated.</p>

<p><b>Condition</b></p>	<p>Overall condition of the collection based on condition survey and improvements to storage.</p>		<p>The museum collection is in fair (archives) to good condition. About 60% of the unprocessed archives are stored at the Colonial Heritage Center. 40% are stored in the HQ/Visitor Center building.</p> <p>Archeological collections are stored at SEAC (designated Regional Repository for archeological collections). One-hundred percent (100%) of the museum collections are stored at the HQ/Visitor Center building.</p> <p>As part of the 2011 CMP, museum storage plans were drafted for that space.</p>
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## Resource Brief: Re-interment of Brigadier General Jethro Sumner

Jethro Sumner (1733?–1785) was a brigadier general in the Continental Army. Sumner served in the Virginia militia, 1755–1761; was justice of the peace, 1768, and sheriff, 1772–1777, of Bute (now Warren) County, N.C.; and was colonel of the 3rd Battalion, North Carolina Continentals, 1776–1778, and brigadier-general 1779–1780.

For his service in the Continental Army, he received a land warrant on October 23, 1783, which represented compensation for 84 months of service. Sumner died in Warren County between March 15 and March 19, 1785 at the age of 52. At his death, he owned approximately 20,000 acres of land in North Carolina and Tennessee (much of which in the latter was part of the Continental Army land warrant he received), as well as 35 slaves.

He was originally buried approximately eight miles outside of Warrenton, but in 1891 his remains were moved to the Guilford Courthouse Battlefield, where they were interred under a monument intended as part of a “shrine to patriots.” In March 2012, a driver struck Sumner’s monument after going off-road to avoid hitting a deer, nearly destroying the stone structure. The monument was restored by May 2012, and Sumner was reburied in a public ceremony.



**Left: Monument after being struck by a car; Right: Copper clad box with a post-Civil War military bayonet ceremonially laid on top of the box in honor of Brigadier General Sumner.**



**Left: Re-interment Ceremony; Right: Restored monument, 2012**

## Resource Brief: The Luther Clark Drum



The Caldwell Chapter of the Daughters of the American Revolution donated a drum reportedly carried by Luther Clark, a Virginia Militiaman, in the battle, which is perhaps the single most significant item in the collection. In battle, drums conveyed orders and signals to the Infantry. Harpers Ferry Center treated the drum in 1955, 1993 and 2001, but otherwise the drum has been on permanent exhibit ever since its donation in 1954. The drum with a painted moon face and stylized armaments has been featured in Life Magazine in 1955, several newspapers and other non-NPS publications, on NPS calendars, GUCO's online exhibit, and on the NPS Park Museum Management Program's website.

Musicians were essential to the functioning of Revolutionary War armies. Beyond furnishing a musical relief from the drudgery of marching and mundane camp and garrison duties, drums were vitally important in communicating orders in battle and regulating the soldiers' daily life. Eighteenth-century drums had wooden or brass shells with two wooden hoops. The drum and snare heads were of sheepskin tightened on the shell by linen ropes and leather tugs. Individual regimental badges or designs decorated the shells of the units in Cornwallis' British Army; those in the Greene's American Continental Army were usually plain or painted in a specified color. Militia companies also carried drums that may have been either plain or painted.

Fifers contributed, too, as musicians. Just as the drum, the fife's high-pitched sound could be heard at great distances and over the din of battle. Fifes and drums were used by the majority of military musicians. Some military bands, especially those from Europe, might also include a variety of horns, percussion, and other instruments.

Drummers and fifers were assigned to every company of infantry. In formation, drummers stood near the captain ready to beat a signal echoing his commands to the troops. To quickly recognize the whereabouts of these important soldiers, musicians traditionally wore coats opposite in color to the infantrymen with whom they served.

## Resource Brief: Acquisition of the Printed Lord Cornwallis Papers (Full Set)

Acquired for the Nathanael Greene Library at GUCO, The Lord Cornwallis papers are primary documentation about the Southern Theatre of the American Revolutionary War. These documents consist chiefly of the official papers of the first Marquis Cornwallis, and relate principally to the American War, 1780 to 1782, and open the door to re-evaluating certain aspects of the war. They also pertain to Indian civil and military administration, 1786 to 1797. There are also papers concerning other offices held by Cornwallis: on a Mission to Flanders in 1794; as Master General of Ordnance, 1795 to 1798; as Plenipotentiary to the Congress of Amiens, 1801 to 1802; and miscellaneous semi-official and private papers of the Cornwallis family, 1612 to 1854. The original papers are at the National Archives in Kew, England.

Charles Cornwallis was born in 1738 into an old and distinguished English family. Young Charles was schooled at Eton where an injury in a sports event left him with a permanent cast in one eye. After Eton he entered the military school of Turin in Italy. At the age of seventeen he was commissioned an ensign in the elite Brigade of Foot Guards and was at the famous battle of Minden in 1759 during the Seven Years War. He was soon promoted to captain in the 85th Regiment of Foot. In 1760 he was elected for the first time to the British Parliament starting a lifetime career in government and the military.



Initial British success at Camden and the establishment of bases throughout South Carolina led the British to enter North Carolina in the fall of 1780. After British reversals at Kings Mountain and Cowpens, Cornwallis and his small British army found itself on the offensive in the late winter of 1781 chasing the wily opponent Nathanael Greene across North Carolina into Virginia. Exhausted and hungry after two months of chasing Greene, Cornwallis's army retired to Hillsborough, NC, eager to destroy the rebels on their return. On March 15 the two armies clashed at Guilford Courthouse. Forcing the rebels from the field, Cornwallis's smaller army suffered 27% casualties. Leading his now crippled army from the Piedmont to the coast of North Carolina, Cornwallis decided at Wilmington to march them north to join British forces holding tidewater Virginia. After a summer of campaigning and fighting, Cornwallis's army fortified the river port of Yorktown. Besieged by the allied French and American forces under George Washington, Cornwallis was forced to accept their terms of surrender on October 19.

Doomed in history as the general who lost the American colonies, Lord Cornwallis's career was not damaged. He was paroled to New York City where, in May 1782, he was exchanged for American diplomat Henry Laurens and returned to England.

After the Treaty of Paris in 1783 Cornwallis faced a vengeful Henry Clinton who used the press to blame him for the British defeat. In 1786 he left Great Britain to accept the government post of governor-general of India where he won recognition as a soldier and a capable colonial administrator. Lord Cornwallis was made a marquis by King George III in 1793 and returned to England in 1794. In 1797 he was sworn in as Commander in Chief and Governor-General of Ireland. An aging and ill Cornwallis was recalled to India in 1805 where at the age of 66, after a lifetime of service to king and country, he died.

## 2.3. Visitor Experience

### Visitor Numbers and Visitor Satisfaction

[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
Number of Visitors	Number of visitors per year		The total of 541,581 visitors to the park in 2013 is higher than that of 2011 (346,617) and 2012 (313,374) and also higher than the 10-year average of 382,723 visitors for 2003–2012.
Visitor Satisfaction	Percent of visitors who were satisfied with their visit		Based on the standard visitor satisfaction survey conducted each year, the percentage of visitors satisfied in FY13 was 99.0%, which is higher than the average for the previous five years (97.0%) and ten years (97.7%). Source: 2013 Visitor Survey Card Data Report

### Resource Brief: Guilford Courthouse Ranger Program – Colonial Carnival

Connecting People to Parks, Call to Action goals 3, 7, & 13

Diverse groups of youth, senior citizens and overseas visitors came together to hear about the American Revolution and its fight for freedom. This fun and engaging activity with Smoky the Bear, witnessed three generations of visitors learning about the Revolutionary War site, the importance of a soldier's journal, the use of quill pens, soap and sachet making, blacksmithing, colonial music, military button identification and black powder demonstrations.



## Interpretive and Education Programs – Talks, Tours, and Special Events



[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Education Programs</b>	Number and quality of programs, and number of participants		Over a 3 year span, the number of quality educational programs in 2011 increased from 139 to 212 in 2012, but decreased in 2013 to 169 due to lack of staffing, budget and government shutdown. The number of participants in 2011 totaled 5,489. In 2012, participants totaled 8,786 and 2013 totaled 6,647.
<b>Ranger Programs</b>	Number and quality of programs and attendance		There was a steady decline of the number of Ranger Programs and the number of participants in 2013. The number of Ranger Programs decreased from 330 to 163 and the participant numbers dropped from 8,908 in 2012 to 5,249 in 2013. Reductions in staff and budget cited.
<b>Junior Ranger Programs</b>	Number of programs and attendance		Revamped Jr. Ranger Booklet introduced in 2012 with updated activities for various age groups. Program shows an increase from 180 to 223 programs during the 2011–2013 span.
<b>Special Events</b>	Variety and longevity of events, community involvement		Annually, the park hosts 4 cornerstone events which involve the local community attracting a broad audience across the Piedmont Triad area; 2-day Anniversary Celebrations, Lecture Series, Fourth of July Celebration , History of the American Soldier (Veteran’s Day Commemoration). In recent years, the park has added: MUSEP (Music in the Park Concert Series) and a Memorial Day Naturalization Ceremony which promotes diversity by attracting a different audience to the park.

## Interpretive Media – Brochures, Exhibits, Signs, and Website



[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Wayside Signs</b>	Condition and currency of signs		Wayside exhibits were placed in the park roughly 14 years ago. Though functional, they are in need of replacement due to visible signs of environmental exposure, visitor impact, and vandalism.
<b>Park Directional Signs (off-site)</b>	Usefulness, quantity, and placement		In speaking with out of town visitors on a regular basis over the years, highway and road signs directing guests to the park are useless due to lack of quantity, development of new roads without signage and unclear directions.
<b>Exhibits</b>	Visitor Center		The main exhibit area is comprised of artifacts, video monitors, and information walls pertaining to the southern campaign of the Revolutionary War.
	Temporary		Temporary exhibits travel through the visitor center approximately 5–6 times per year. These exhibits have enhanced the visitor experience by providing education in natural/cultural resources and mammal wildlife at the site.
	Colonial Heritage Center/Hoskins Farm		The Colonial Heritage Center/ Hoskins Farm (CHC) exhibits are out of date and non-functional and are in dire need of replacement. The Hoskins Farm is in desperate need of a conditions assessment so restorations can be planned and implemented.
<b>Print Media</b>	Accuracy and availability of primary park publications		The park brochure has been up-dated and remains very effective with providing information to visitors. The addition of several new brochures: On Cell Battlefield Tour, On Cell Hoskins Farm Tour, Monument Tour and Nature Walk have increased visitor awareness of park resources and provide new options to complement their visit.
<b>Audio-visual Media</b>	Orientation Films		The main film, <i>Another Such Victory</i> , remains a visitor favorite. The film promotes dialogue between the staff and visitors who want a deeper explanation of the battle. Closed captioning for the film is in the process of being up-dated.
	Other AV material		The Battle Map Program is a computerized, animated map depicting the movement of the British and the Patriot forces during the battle. Visitors receive baseline knowledge of tactical movements across the battlefield, which enhances their perception of how the battle unfolded as they tour the park.
<b>Websites</b>	Currency and scope of website; number of website visitors		The park website is functional and provides important information regarding events, closures, operating hours, directions, and available programming.
	Social media: Facebook updates and “likes,” overall activity		There are currently no social media outlets for the park.

## Accessibility [web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Mobility</b>	ADA compliance		There is ample accessibility to the Visitor Center, films, museum, and Map Program. All parking lots have ramps to access waysides and comfort station. The Battlefield and interior trails are not ADA compliant due to their sloping nature, but are accessible to those with limited mobility.
<b>Visual Accommodation</b>	ADA compliance		Brochures and visitor center exhibits area does not accommodate the visually impaired. The only braille supported programming available at our Visitor Center is the Tactical Map Program.
<b>Auditory Accommodation</b>	ADA compliance		Visitor center monitors in the exhibit area, the main film and the Map Program all have closed captioning for the hearing impaired.
<b>Public Transportation</b>	Access to park via public transportation		Public transportation on Old Battleground Road and Battleground Avenue is within walking distance to the park. Buses run approximately every 15–20 minutes. Old Battleground Road intersects the park on the Eastside of the visitor center. Battleground Avenue borders the Colonial Heritage Center on the Western side.
<b>Multi-lingual Resources</b>	Audio and print materials in multiple languages Bi-lingual staff		There are no existing multi-lingual audio and print resources at the park.

## Safety [web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Visitor Safety</b>	Recordable incidents		The safety of visitors is a park priority. The park works to quickly identify and mitigate potential hazards, and the number of accidents is very low. With the expansion of park law enforcement, and co-operative agreements with local law enforcement/EMS, incidents have decreased within the park. Park Watch Program volunteers aid in the reporting of medical alerts and suspicious activity.
<b>Staff Safety and Training</b>	Number of staff trained		Operational Leadership Training has been completed by park staff. CPR, First Aid, and AED training is provided to the park staff on a timely basis. Safety training is provided to maintenance employees annually to identify hazards and to mitigate injuries. Park needs to conduct quarterly safety meetings and offer additional safety training to all divisions of the park.

## Resource Brief: Guilford Courthouse Living History Volunteers

The Living History program at Guilford Courthouse NMP began in the 1970s with the Guilford Militia and Guilford Artillery Corps. The Fife and Drum Corps was added in the 1990s to compliment these two. The Carolina Colonial dancers were introduced to the park in 2000. These volunteer units provide countless hours of service during special events and off-site programming such as parades, graduations, school programs, and Park Service-wide Anniversaries.



Guilford Courthouse Artillery Volunteers

### Partnerships



[web](#) ▶

Indicators of Condition	Specific Measures	Condition Status/Trend	Rationale
<b>Volunteers</b>	Number and hours contributed		Over the past 3 years, the entire park and its individual divisions have benefitted from the use of volunteers. Over 1,000 Volunteers have provided 20,674 hours of service during that span. Volunteer hours have increased annually from 2011 (6,307) to 2013 (7,421) which signifies satisfaction and success of the Park VIP program.
<b>Partnerships</b>	Number of official and unofficial partnerships		The park has maintained a variety of official partnerships to foster positive relationships within the community. Some partnerships are long standing such as the Guilford Battleground Company, which was founded in 1887 to preserve the battlefield. These partners also provide outreach to other unofficial partners on the park's behalf. With the addition of the new, innovative <a href="#">Battleground Parks District</a> partnership, we anticipate unlimited support from other enterprises.

## Resource Brief: Guilford Courthouse NMP Park Partnership



**Memorial Day Naturalization Ceremony**

Guilford Courthouse NMP partnered with U.S. Citizenship and Immigration Services in 2011. This partnership developed a program in which the park hosts the naturalization of new citizens to the United States on Memorial Day. Since the inaugural naturalization ceremony, other park partners such as the Daughters of American Revolution, University of North Carolina at Greensboro and local high schools have participated in this successful and popular event. To date, the park has welcomed 150 new citizens to this country.

## 2.4. Park Infrastructure

### Overall Facility Condition Index



[web](#) ►

The National Park Service uses a facility condition index (FCI) to indicate the condition of its facilities and infrastructure. FCI is the cost of repairing an asset, such as a building, road, trail, or water system, divided by the cost of replacing it. The lower the FCI number, the better the condition of the asset. The condition of the buildings and other infrastructure assets at each park is determined by regular facility inspections, or “condition assessments”, including daily informal inspections and formal yearly inspections. Deficiencies identified from these assessments are documented in the NPS Facility Management Software System and the cost for each repair determined. Repairs that cannot be completed within the year count against the condition of a structure. The total cost of these deferred repairs divided by the total cost to replace the structure results in the FCI, with values between 0 and 1 (the lower the decimal number, the better the condition). The FCI is assigned a condition category of Good, Fair, Poor, or Serious based on industry and NPS standards. Deferred maintenance projects that require additional funding are identified based on FCI. Planned preventive maintenance on critical components occurs during the year, using a park’s base budget. For additional information about how park managers use information about the condition of facilities and infrastructure to make decisions about the efficient use of funding for maintenance and restoration activities at the park, [Click Here](#).

Another important facilities management planning tool used at a park is the Asset Priority Index (API). It identifies the importance of the various infrastructure components at a park. The API is determined using five criteria, and is calculated out of 100 possible points. The criteria are weighted based on their importance to NPS core priorities. They are distinct to ensure that each aspect of the asset is measured independently. As a result, most assets will not rate high in every category.

Asset Category	Number of Assets 2008 / 2013	FCI 2008 / 2013	Condition Status/Trend	Rationale
<b>Buildings</b>	12 / 19	0.100 / 0.052		The buildings are listed as assets in FMSS and 96% are in good condition. Funding in 2014 is for replacement of HVAC in the Visitor Center theater and funding to comply with our 2010 Energy Audit Report.
<b>Trails</b>	1 / 6	0.042 / 0.056		The Park’s trails and bridges are in good condition. In 2010 the distressed areas of our trails were repaved.
<b>Waste Water Systems</b>	0 / 1	----- / 0.000		The park’s waste water is taken care of by the City of Greensboro.
<b>Water Systems</b>	1 / 1	0.000 / 0.000		The park’s water is furnished by the City of Greensboro.
<b>Unpaved Roads</b>	2 / 2	0.286 / 0.000		The park has one historic unpaved road and one unpaved service road both in good condition
<b>Paved Roads, Parking Areas, Bridges, Tunnels</b>	14 / 15	0.088 / 0.005		The paved roads and parking areas were paved in 2010 and are in good condition.

<b>Monuments</b>	26 / 27	0.003 / 0.000		The park has a significant number of monuments and headstones. Since these are significant assets to the park, they have been identified separately from the all other FMSS category. All are in good condition and are cleaned occasionally as time is available to do so.
<b>All Others</b>	12 / 17	0.051 / 0.044		Interpretive media such as wayside exhibits and museum exhibits are relatively new (1999–2000) and are in good shape. The Park has recently acquired 25 acres of manicured landscape, which strains maintenance and financial resources but has helped preserve the battlefield.

## Resource Brief: Green Parks Plan

The NPS manages the largest number of constructed assets of any civilian agency in the Federal Government. It operates more than 67,000 structures that account for more than 50 million square feet of constructed space such as visitor centers and historic structures. The [Green Parks Plan](#) (GPP) defines a collective vision and a long-term strategic plan for sustainable management of NPS operations. A critical component of the implementation of the GPP will be informing and engaging parks staff, visitors, and community partners about climate change and sustainability to broaden opportunities to foster change.

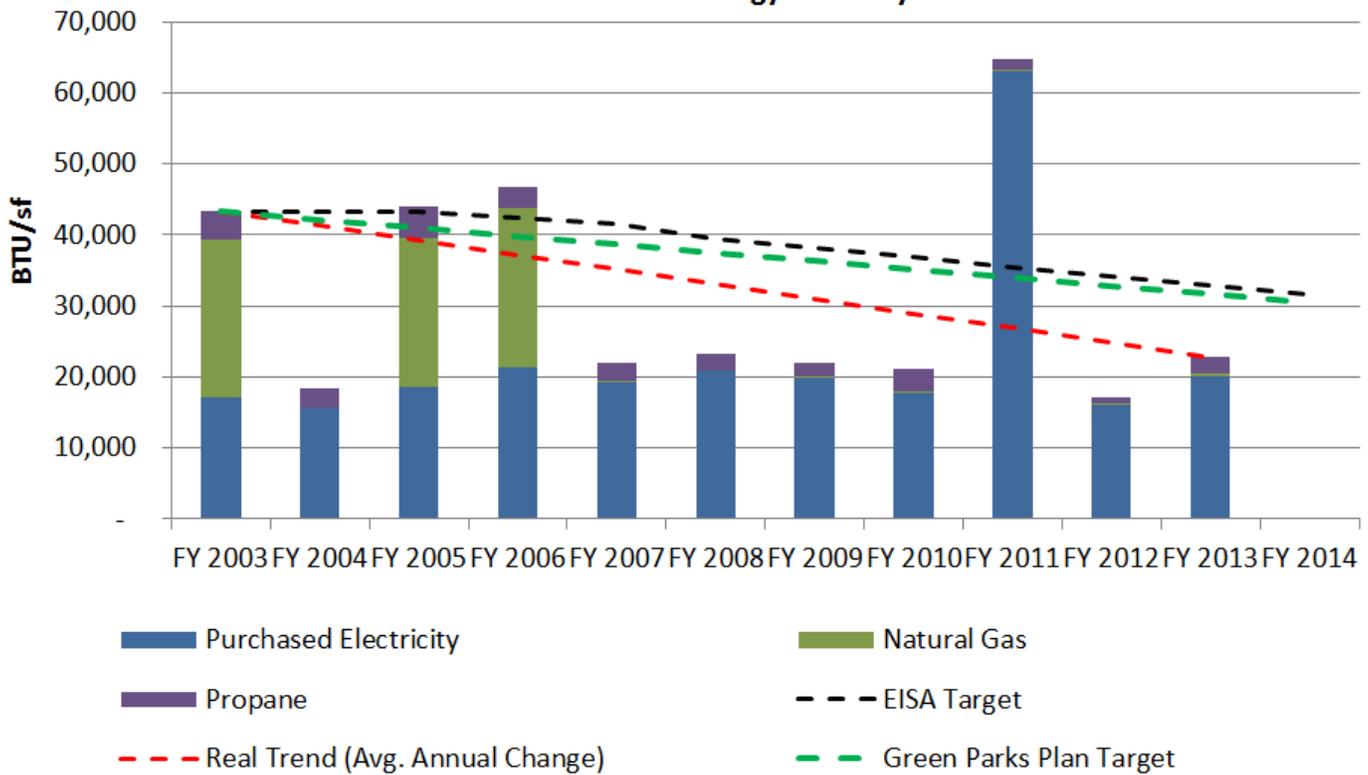
The Vision defined in the GPP plan is, “The NPS will preserve park resources unimpaired for the enjoyment of current and future generations by reducing its environmental impact through sustainable operations, design, decisions, and management at every level of the organization.” The plan is based on nine strategic goals that focus on the impact of facilities on the environment and human welfare. Two of those goals are closely aligned with Park Infrastructure as defined in this State of the Park report. Those are:

- Be Energy Smart: The NPS will improve facility energy performance and increase reliance on renewable energy; and
- Be Water Wise: The NPS will improve facility water use efficiency.

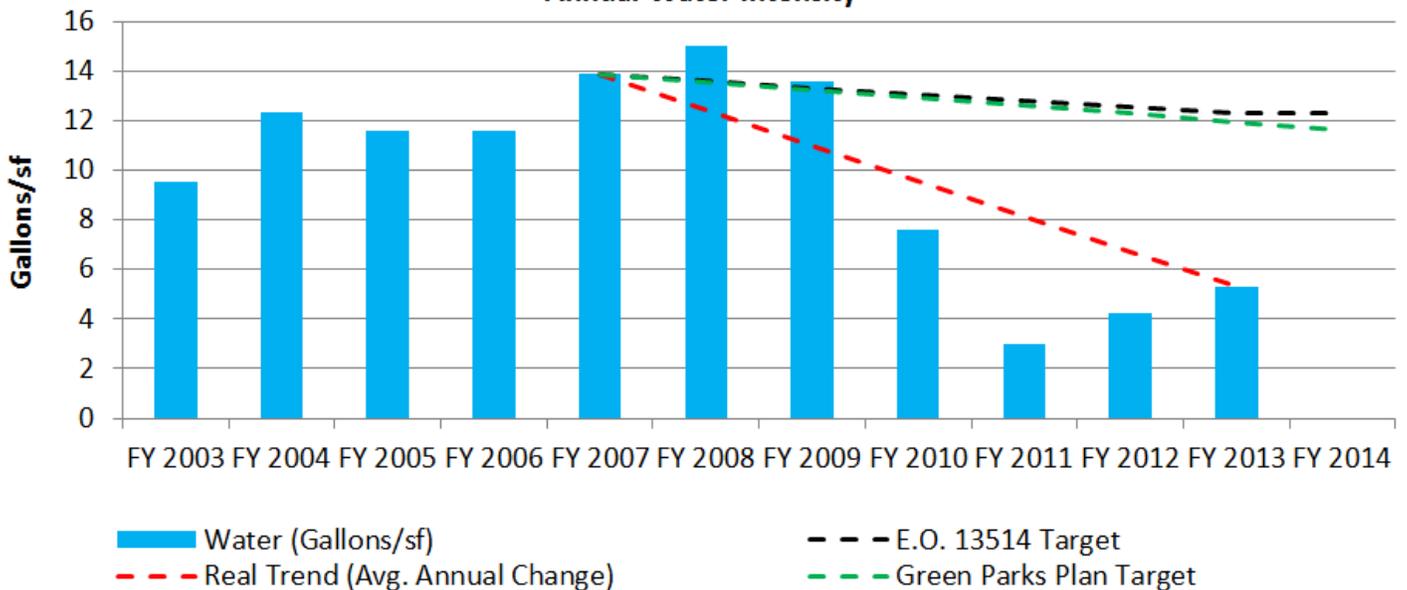
For Energy, one of the performance objectives is to reduce Servicewide building energy intensity by 35 percent by 2016 from the 2003 baseline, where energy intensity is energy consumption per square foot of building space. For Water, one of the performance objectives is to reduce potable water use intensity by 30 percent by 2020 from the 2007 baseline.

Historical data for energy and water consumption reported by GUCO and available in the Energy Data Reporting Tool (EDRT) is shown below.

### Annual Energy Intensity



### Annual Water Intensity



Highlights for GUCO include:

- Water consumption has decreased dramatically since FY 2009.
- Energy consumption has reduced significantly since FY 2011.
- The rise in energy consumption in 2011 was due to the acquisition of the Colonial Heritage Center. After 2011, the park started limiting the hours of operations. The result was the decrease of energy use in subsequent years.

## Resource Brief: An Expanding Park in an Urban Environment

GUCO is a highly visited park by the local residents for walking, running, and biking use. It is an urban park and surrounding schools take the opportunity to have a day trip to GUCO to learn a bit of history. Since the park is in such a large and growing urban environment it makes it difficult for the visitors to fully appreciate the historic significance of the resources. The park, therefore, has been moving toward expanding protection of battlefield land and rehabilitation of the battle-era landscape. This means removing certain intrusions and mitigating the impact of others to properly tell the story of Guilford Courthouse NMP. Over the last fifteen years the park has expanded from 227 acres to 250 acres in an attempt to protect the remaining salvable vestiges of the 1781 battlefield before they are lost to commercial development. These lands, when developed for visitor access, will not only help the park tell the story of the Battle of Guilford Courthouse but will also provide increased acreage for visitor exploration and discovery.



Newly acquired battlefield property before (*left*) and after (*right*)

# Chapter 3. Summary of Key Stewardship Activities and Accomplishments

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## Activities and Accomplishments

The list below provides examples of stewardship activities and accomplishments by park staff and partners to maintain or improve the condition of priority park resources and values for this and future generations:

### Natural Resources

- Ongoing treatment/removal of exotic and invasive plants by the NPS/SERO Exotic Plant Management Team, park staff, and volunteers.
- Completion of baseline natural resource inventories for vertebrates and vascular plants.
- Identification of key natural resources “vital signs” for long-term monitoring by the [Cumberland Piedmont Inventory and Monitoring Network](#) (CUPN).
- Natural Resource Condition Assessment currently being developed by Western Carolina University to evaluate and summarize existing natural resource data for the park.
- Partnered with UNC-Greensboro Environmental Studies Department utilizing student interns to research environmental topics associated with park and to develop temporary exhibits and educational site bulletins (native trees, exotic plant species, and mammals).
- Partnered with the Piedmont Bird Club to provide bird walks for park visitors.
- Partnered with NCSU to develop Non-Native Plant Management Plan (O’Driscoll and Shear 2009) for the park.
- Planted native tree species as a part of battlefield restoration project recommendations from the park Cultural Landscape Report (Hiatt).
- NPS I&M program completed inventories for Base Cartography inventory, Air Quality Inventory, Air Quality Related Values, Climate Inventory, Geologic Resource Inventory, and Soil Resources Inventory.
- CUPN completed species lists and species occurrence for mammals, bats, birds, fish, reptiles, amphibians, and vascular plants.
- CUPN also analyzed landscape dynamics via NPScape data and tool, such as the [Map Movie Guilford Courthouse National Military Park - Housing Density, 1970–2100](#).

### Cultural Resources

- Archeological site conditions were assessed in 2013.
- Archeological sites and surveys have been digitized in GIS and made available to park staff through a web map viewer.
- Monuments have been photographed.
- Trees have been planted at Schenck’s Field, the Hessian Tract, Stop 4, and the southeast corner in order to comply with the CLR treatment recommendations.
- Four temporary exhibits were prepared and displayed in 2013: the Archeology at GUCO exhibit displayed recent archeological artifacts and information; Revolutionary War Equipment; Powder Horn and Hunting Bags from the GUCO collections; The French and Indian War.
- The GUCO Library received a complete set of the Cornwallis Papers to complement the library holdings.
- A fire suppression system has been researched, designed, and installed in the Utility Building and the Inflammable Storage Building.
- Condition assessments are being conducted on all the monuments—out of 28 monuments, eight are completed. The rest of the monuments will be completed by the end of FY 2014. Condition assessment includes written documentation of the monument’s condition, washing, repointing (if necessary) by an outside contractor, clean and wax bronze plaques and statues, some composite repair may be done, etc.
- Museum documentation – All the acidic folders have been replaced with archival folders, bringing housing up to current standards.
- All the 1950s artifact cards have been filed within the appropriate object folders, thus providing more documentation.

### Visitor Experience

- On Cell phone audio tours at Colonial Heritage Center and Main Battlefield installed 2011–2012.
- Acquisition of the Colonial Heritage Center/Hoskins Farm (formerly Tannenbaum Park), 2010.
- Main Tour Road repavement project completed 2009 to better assist pedestrians and motorists to tour the park in a safe environment.
- AmeriCorps program 2011, 2012 introduced a younger audience to the mission of the National Park Service.

- Grant received 2012 to fulfill Call to Action goals engaging the diverse community and youth groups in cultural and historical education.
- Positive recruitment and retention of youth to the Junior Volunteer Program and adults to the Volunteer/Park Watch Program.
- Security surveillance installed in key areas of the park to deter criminal activity, 2013.
- Lighting systems up-graded in Visitor Center parking lot and at the Greene Monument to deter vandalism.
- Music in the Park concert Series added to park event line-up, prompting community interest and family togetherness.
- Acquired an Open air Tram, 2013, in the aspiration of providing new interpretive services for visitors in the near future.
- Creation and establishment of the Nature Walk Tour, and Monument Tour by college interns, 2012.
- Revamp of the Junior Ranger Program/booklet with improved activities, 2012.
- Celebrating 10 years of partnership between UNCG and the Museum Studies Internship Program.
- Dedication of the Nathanael Greene Research Library, 2011.
- Acquired adjacent properties (original battlefield) to enhance the natural/cultural resource for the education and enjoyment of the visiting public.

#### **Park Infrastructure**

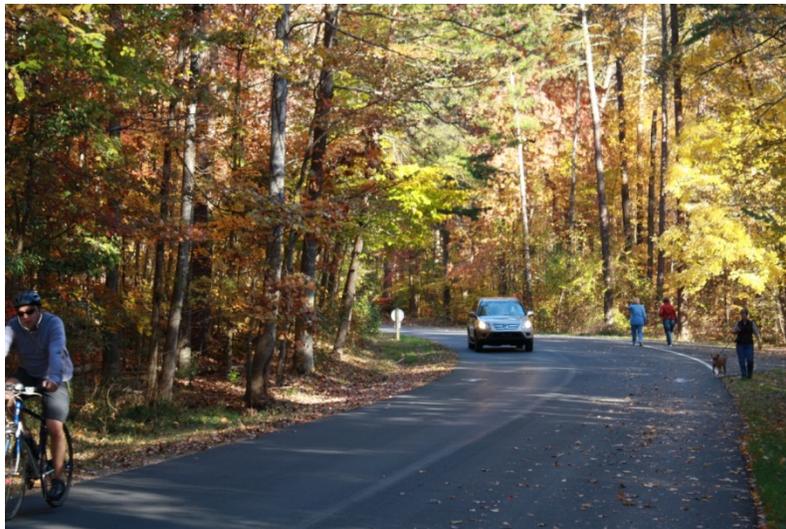
- Replacing HVAC systems with energy efficient ones in the Visitor Center and the Colonial Heritage Center.
- Funding for project in 2014 for complying with Energy Audit of 2010. This project involves six major buildings in the park.
- The 2.5 miles of trails and approximately 50 acres of landscapes are maintained by park staff.
- The park is very proactive with FMSS and FBMS.

# Chapter 4. Key Issues and Challenges for Consideration in Management Planning

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GUCO was protected by the Federal Government in 1917. At that time the park was well outside the city of Greensboro. Since that time the city has continued to grow and its suburbs have completely surrounded the park (the 2010 census lists a population of 270,000 people in Greensboro). Battleground Avenue has had significant development with apartment complexes, town homes, and individual residences mixing with commercial developments to provide increasing challenges for park managers to protect natural and cultural resources, ensure visitor safety, provide a meaningful visitor experience, preserve the commemorative value of the battlefield, and balance that with a green space recreational experience for local area residents.

In 2013 the Park had 541,581 counted visitors but with 20 walk-in entry points throughout the Park there is no accurate way of counting all the visitors to the park area throughout the year. It is estimated that from 20 to 30% of park visitors walk or ride bikes into the park without being counted. Only 59,000 visitors actually entered the Visitor Center in 2013 representing less than 10% of all park visitors. That means 90% of park visitors are here for recreation and exercise. That presents a challenge to maintain a commemorative ambience to the park that pays tribute to the significance of the battle and its participants while recognizing the local community importance for the green space. An additional challenge is to actually increase visitation for history-related activities.



**Park tour road with visitors**

The primary challenges for the resources are related to the urban nature of the Park as well. One critical concern for the natural resources are the pervasive creep of invasive plants from the neighboring residences (for example, English ivy planted as ground cover in residential plant beds can cross into the park and grow over understory plants and eventually trees). Threats to wildlife due to the ever-increasing traffic volume on the roads are an issue as well as threats due to feral cats and dogs in the park. Several important cultural resource challenges are protecting archeological resources from metal detecting poachers and protecting battlefield monuments from vandalism. In 1991 the Greene monument was vandalized and cost over \$100,000 to repair. Finally, threats to visitors arise from car break-ins, sexual solicitation, indecent exposure, and speeding on the roadways. Fortunately violent crimes such as rape and armed robbery are extremely rare.

In total the Park encompasses 250 acres, which is only  $\frac{1}{4}$  of the actual battlefield. Since 1999 the park has attempted to acquire properties that are within the area of the Battle of Guilford Court House National Historic Landmark. These properties are all a part of the first line and second line action and were in immediate danger of development as the city expanded along Battleground Ave. Since 1999 18 tracts of endangered battlefield land has been acquired totaling 30.68 acres. Twelve tracts consisting of 5.42 acres remain to be acquired. It will take management commitment into the future to make these final acquisitions from willing sellers when the properties come available. Meanwhile, the lands that have been integrated into the park require upkeep to maintain them and keep them presentable for a neighborhood. Houses on the properties need to be removed, and the landscape restored to its 1781 appearance of forests mixed with agricultural fields.

The Park's 1998 General Management Plan preferred alternative included cooperation with the 600-acre interconnected park area that includes Guilford Courthouse, Tannenbaum Historic Park, Country Park, Jaycee Park, and the Greensboro Natural Science Center. Since that time the area parks have developed a Master Plan for cooperative development and are actively working toward a model

that will create a pedestrian and bicycle friendly multi-park destination that includes internal wayfinding signs, shared parking, all-area shuttle bus service, and cooperation on events (see [Planning and Management](#) on the Battleground Parks District website). The recently completed Foundation Document for Guilford Courthouse NMP also endorses that cooperative direction. The Guilford Courthouse land acquisition program has also enhanced that joint park outcome in connecting what was Tannenbaum Historic Park directly with Guilford Courthouse NMP. In 2010 the city donated Tannenbaum Historic Park and its Colonial Heritage Center, Hoskins House Historic District, and 7.5 acres to the National Park Service and other acquisitions have nearly connected the two park areas.



***Left: Colonial Heritage Center; Right: Battleground Visitor Center***

Although the park acquired the Colonial Heritage Center in 2010 it has been closed to the public because the Park has not been able to acquire the funding necessary to operate it. The Park's Cultural Landscape Report (2004) calls for the removal of the Battleground Visitor Center from its current location between the first and second lines of battle. A Value Analysis completed in 2010 found that combining the two facilities by expanding the Colonial Heritage Center would be the best way to accomplish that. It is in the long term interest of the Park to restore the appearance of the battlefield by removing the current Battleground Visitor Center. To this end, it is important to maintain the Colonial Heritage Center and at some time in the future combine both the Battleground Visitor Center and the Colonial Heritage Center into one larger building.

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See Also:

[Collection of Natural Resource-Related References](#)

[Collection of Cultural Resource-Related References](#)

[Collection of Visitor Experience-Related References](#)

# Glossary

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See the [State of the Parks home page](#) for a link to a complete glossary of terms used in State of the Park reports. Definitions of key terms used in this report are as follows:

Americans with Disabilities Act (ADA)	Law enacted by the federal government that includes provisions to remove barriers that limit a disabled person's ability to engage in normal daily activity in the physical, public environment.
Archeological Sites Management Information System (ASMIS)	The National Park Service's standardized database for the basic registration and management of park prehistoric and historical archeological resources. ASMIS site records contain data on condition, threats and disturbances, site location, date of site discovery and documentation, description, proposed treatments, and management actions for known park archeological sites. It serves as a tool to support improved archeological resources preservation, protection, planning, and decision-making by parks, centers, regional offices, and the national program offices.
Baseline Documentation	Baseline documentation records the physical condition of a structure, object, or landscape at a specific point in time. A baseline provides a starting point against which future changes can be measured.
Carbon Footprint	Carbon footprint is generally defined as the total set of greenhouse gas emissions caused by an organization, event, product or person.
Climate Friendly Park	The NPS <a href="#">Climate Friendly Park</a> designation requires meeting three milestones: completing an application; completing a comprehensive greenhouse gas (GHG) inventory; and completing a Climate Action Plan, which is the actions, policies, programs, and measures a park will put into place to reduce its GHG emissions.
Cultural Landscape Inventory (CLI)	A Cultural Landscapes Inventory describes historically significant landscapes within a park. The inventory identifies and documents each landscape's location, size, physical development, condition, characteristics, and features, as well as other information useful to park management.
Cumberland Piedmont Network (CUPN)	One of 32 I&M networks established as part of the NPS <a href="#">Inventory and Monitoring Program</a> . The <a href="#">Cumberland Piedmont Network</a> provides scientific data and expertise for natural resources in 14 parks located in Alabama, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.
Curation	National parks are the stewards of numerous types of objects, field notes, publications, maps, artifacts, photographs, and more. The assemblage of these materials comprises a museum collection. Curation is the process of managing, preserving, and safeguarding a collection according to professional museum and archival practices.
Exotic Plant Management Team (EPMT)	One of the ways the NPS is combating invasive plants is through the Exotic Plant Management Program. The program supports 16 Exotic Plant Management Teams working in over 225 park units. EPMTs are led by individuals with specialized knowledge and experience in invasive plant management and control. Each field-based team operates over a wide geographic area and serves multiple parks.
Facility Condition Index (FCI)	FCI is the cost of repairing an asset (e.g., a building, road, bridge, or trail) divided by the cost of replacing it. The lower the FCI number, the better the condition of the resource.

Foundation Document	A park Foundation Document summarizes a park’s purpose, significance, resources and values, primary interpretive themes, and special mandates. The document identifies a park’s unique characteristics and what is most important about a park. The Foundation Document is fundamental to guiding park management and is an important component of a park’s General Management Plan.
Fundamental and Other Important Resources and Values	Fundamental resources and values are the particular systems, processes, experiences, scenery, sounds, and other features that are key to achieving the park’s purposes and maintaining its significance. Other important resources and values are those attributes that are determined to be particularly important to park management and planning, although they are not central to the park’s purpose and significance. These priority resources are identified in the Park Foundation Document and/or General Management Plan. The short-cut name that will be used for this will be Priority Resources.
Green Parks Plan (GPP)	The <a href="#">Green Parks Plan</a> defines a collective vision and a long-term strategic plan for sustainable management of NPS operations. A critical component of the implementation of the GPP will be informing and engaging park staff, visitors, and community partners about climate change and sustainability to broaden opportunities to foster change.
Historic Integrity	Historic Integrity is the assemblage of physical values of a site, building, structure or object and is a key element in assessing historical value and significance. The assessment of integrity is required to determine the eligibility of a property for listing in the National Register.
Indicator of Condition	A selected subset of components or elements of a Priority Resource that are particularly “information rich” and that represent or “indicate” the overall condition of the Priority Resource. There may be one or several Indicators of Condition for a particular Priority Resource.
Integrated Resource Management Applications (IRMA)	The NPS-wide repository for documents, publications, and data sets that are related to NPS natural and cultural resources.
Interpretation	Interpretation is the explanation of the major features and significance of a park to visitors. Interpretation can include field trips, presentations, exhibits, and publications, as well as informal conversations with park visitors. A key feature of successful interpretation is allowing a person to form his or her own personal connection with the meaning and significance inherent in a resource.
Invasive Species	Invasive species are non-indigenous (or non-native) plants or animals that can spread widely and cause harm to an area, habitat or bioregion. Invasive species can dominate a region or habitat, out-compete native or beneficial species, and threaten biological diversity.
List of Classified Structures (LCS)	LCS is an inventory system that records and tracks the condition of the approximately 27,000 historic structures listed in the National Register of Historic Places that are the responsibility of NPS.
Museum Collection	NPS is the steward of the largest network of museums in the United States. NPS museum collections document American, tribal, and ethnic histories; park cultural and natural resources; park histories; and other aspects of human experience. Collections are managed by professionally-trained NPS staff, who ensure long-term maintenance of collections in specialized facilities.
Native American Graves Protection and Repatriation Act (NAGPRA)	A federal law passed in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items (e.g., human remains, funerary objects, sacred objects, objects of cultural patrimony) to lineal descendants and culturally-affiliated Indian tribes and Native Hawaiian organizations.

Natural Resource Condition Assessment (NRCA)	A synthesis of existing scientific data and knowledge, from multiple sources, that helps answer the question: what are current conditions of important park natural resources? NRCAs provide a mix of new insights and useful scientific data about current park resource conditions and factors influencing those conditions. NRCAs have practical value to park managers and help them conduct formal planning and develop strategies on how to best protect or restore park resources.
Priority Resource or Value	This term refers to the Fundamental and Other Important Resources and Values of a park. These can include natural, cultural, and historic resources as well as opportunities for learning, discovery and enjoyment. Priority Resources or Values include features that have been identified in park Foundation Documents, as well as other park assets or values that have been developed or recognized over the course of park operations. Priority Resources or Values warrant primary consideration during park planning and management because they are critical to a park’s purpose and significance.
Project Management Information System (PMIS)	A servicewide intranet application within the National Park Service to manage information about requests for project funding. It enables parks and NPS offices to submit project proposals to be reviewed, approved and prioritized at park units, regional directorates, and the Washington Office.
Resource Management	The term “resources” in NPS encompasses the many natural, cultural, historical, or sociological features and assets associated with parks. Resource management includes the knowledge, understanding, and long-term stewardship and preservation of these resources.
Southeast Archeological Center (SEAC)	Located in Tallahassee, Florida, the <a href="#">Southeast Archeological Center</a> (a unit of the National Park Service) is dedicated to the study, interpretation, and preservation of archeological resources within National Park Service units.
Specific Measure of Condition	One or more specific measurements used to quantify or qualitatively evaluate the condition of an Indicator at a particular place and time. There may be one or more Specific Measures of Condition for each Indicator of Condition.
Visitor and Resource Protection (VRP)	VRP includes, among other responsibilities, protecting and preserving park natural and cultural resources, enforcing laws that protect people and the parks, fire management, search and rescue, managing large-scale incidents, and on-the-ground customer service.