National Park Service
U.S. Department of the Interior

ENVIRONMENTAL ASSESSMENT (EA)
ANDERSONVILLE NATIONAL CEMETERY REHABILITATION PROJECT
ANDERSONVILLE, GEORGIA
DRAINAGE/CONTOUR GRADING IN NATIONAL CEMETERY SECTION Q

NATIONAL PARK SERVICE - PMIS PROJECT 248778 REPAIR

July 2023

NOTE TO REVIEWERS

If you wish to comment on this document, you may mail comments to: Bridget A. Beers, Museum Curator, Andersonville National Historic Site, 496 Cemetery Rd, Andersonville, GA 31711 Bridget_Beers@nps.gov.

You may also comment on this Environmental Assessment (EA) project online using the Planning, Environment, and Public Comment (PEPC) system at http://parkplanning.nps.gov/ande .

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ON THE COVER

View of Section Q, Andersonville National Cemetery

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

ACBM	Asbestos-containing building material
ACHP	Advisory Council on Historic Preservation
ADT	Annual daily traffic
AHPA	Archaeological Protection Act
AMSL	Above Mean Sea Level
ANDE	Andersonville National Historic Site
APE	Area of Potential Effect
ARPA	Archaeological Resource Protection Act
AST	Aboveground Storage Tank
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Equality
CFR	Code of Federal Regulations
CWA	Clean Water Act
CY	Cubic Yard
dB	Decibel
dBA	A-Weighted Decibels
DOI	Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EM	Electromagnetic
ESA	Endangered Species Act
EO	Executive Order
°F	Degrees Fahrenheit
GA	Georgia
GAEPD	GA Environmental Protection Division
GADNR	GA Department of Natural Resources
GPR	Ground Penetrating Radar
HS	Historical Structure
LBP	Lead Based Paint
LCS	List of Classified Structures
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PM	Particulate matter
RCRA	Resource Conservation and Recovery Act
ROM	Rough Order of Magnitude
SEAC	Southeast Archaeological Center

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS (CONTINUED)

SDWA	Safe Drinkable Water Act
SF	Square Feet
SHPO	State Historic Preservation Officer
SWPPP	Stormwater Pollution Prevention Plan
US	United States
USC	United States Code
USACE	US Army Corps of Engineers
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
UST	Underground Storage Tank

CHAPTER 1 BACKGROUND AND PURPOSE AND NEED

Background

The National Park Service (NPS) is considering actions to improve drainage and modify the contour of the land within Section Q of Andersonville National Cemetery located within the Andersonville National Historic Site (ANDE) in Andersonville, Georgia (GA) **(Figure 1)**. The national cemetery saw its first burial in February 1864 and was officially designated a national cemetery in 1865. The initial interments were trench burials of the prisoners who died at the nearby military prison. In fourteen months, nearly 13,000 soldiers were buried here. Today the cemetery contains nearly 20,000 interments. The purpose of ANDE is to preserve the resources and stories that illustrate the experiences of American prisoners of war throughout U.S. history and to educate the public about the Confederate military prison Camp Sumter, the deadliest ground of the Civil War. It is the only national park established as a memorial to all prisoners of war. Andersonville National Cemetery, is the only active national cemetery managed by the NPS, preserves the burial ground of those who perished at Camp Sumter during the Civil War and honors the sacrifices of all veterans from the Revolutionary War to the present.

This Environmental Assessment (EA) was prepared in accordance with requirements of the National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321 et seq.), the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] 1500 -1508), and the Department of the Interior NEPA regulations (43 CFR Part 46); National Park Service Director's Order #12 and Handbook, *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2015).

The project area originally included two sections of the cemetery, Section Q, and a subsection of the eastern area of Section J **(Figure 2)**. The western and central areas of Section J are active interment areas. The undeveloped eastern end of Section J was originally included in the project for use as the proposed construction contractor laydown area. This eastern area of Section J, however, is now being used for interments, and therefore will no longer be evaluated as part of the Proposed Action. Section Q is the last undeveloped area available in the cemetery for interments and is currently unable to be used for burials due to existing high slope conditions.

Figure 1. Location of Andersonville National Historic Site within Georgia

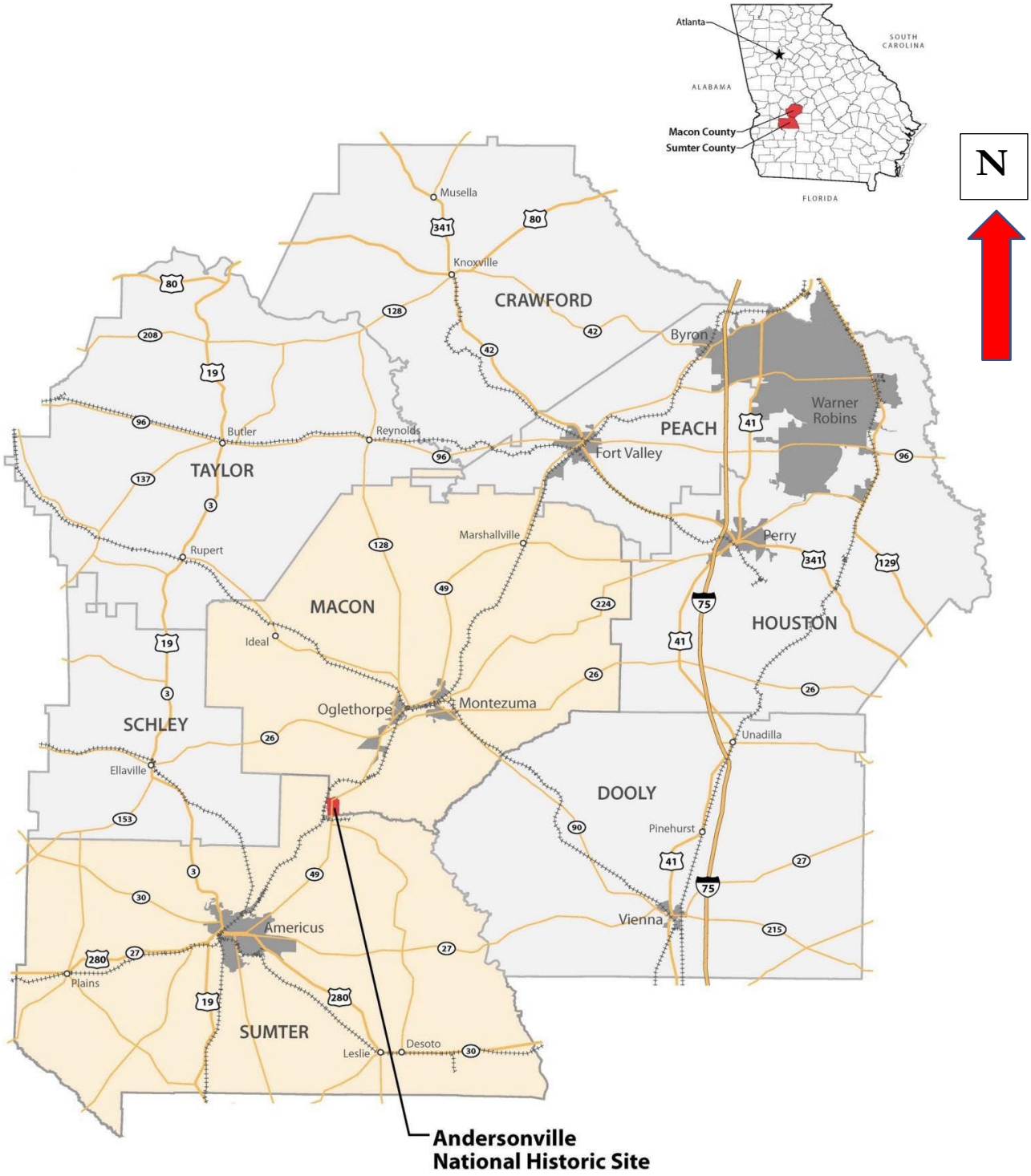


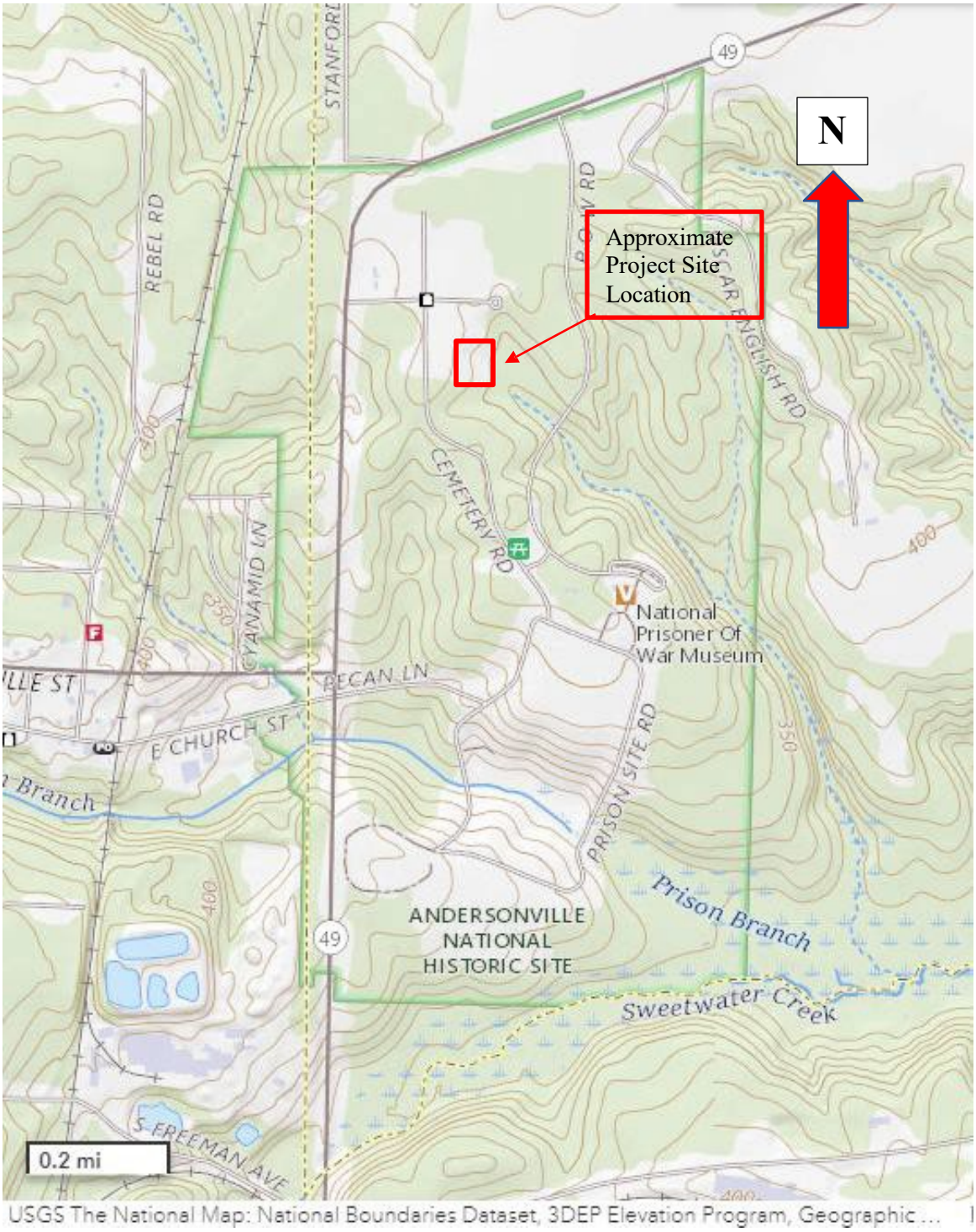
Figure 2. Location of Sections Q and J within Andersonville National Cemetery

Project Site Location and Description

The project area is located within ANDE in the Andersonville National Cemetery. Most of ANDE lies within southwestern Macon County, adjacent to the east side of the town of Andersonville, Georgia. ANDE also contains the former Andersonville Prison (historic Camp Sumter) and the National Prisoner of War Museum. The Andersonville National Cemetery is located on a ridge with elevations that range from 435 feet above mean sea level (AMSL) in the site's northwest corner to 400 feet AMSL in the southeast corner of the cemetery **(Figure 3)**. The elevation change in the northern half of the cemetery is only eight feet. To the south of the main central east west cemetery road, the site becomes a large and relatively flat ridge plateau with an average elevation of 426 feet AMSL. Due to the size of the plateau, the area south of the cemetery road is flat and gently undulating. The topography remains similar to what it was during and after the Civil War. The plateau on which the cemetery is located slopes gently to the west to elevation 420 feet AMSL and sharply to the east to elevation 400 feet AMSL. The steepest part of the cemetery landscape is in the southeast quadrant from the Rostrum to the southeast corner of the perimeter brick wall. This section of the site drains into a tributary that flows to the southeast by the National Prisoner of War Museum located on the north side of ANDE former prison site. The elevation 430 feet AMSL in the northwest corner of the cemetery site is also the high point for the entire ANDE landscape. The cemetery and the museum located within ANDE are both located on ridges of similar elevations. The entire site drops to around 310 feet AMSL where Prison Branch exits from the southeast corner of ANDE.

The topography surrounding Andersonville National Cemetery and ANDE is generally level to gently rolling and is dominated by agricultural use. Some industrial mining operations are located to the south and east of ANDE, but they are not in close enough proximity to impact the site.

Figure 3. Topographic Site Location Map



Purpose and Need

Andersonville National Cemetery is reaching capacity and needs additional burial plots. The last unused area of the cemetery, Section Q, located in the southeast portion of Andersonville National Cemetery, is currently unusable for burials due to the steep slope of the terrain. The purpose for the action is to repair and improve drainage in Section Q and regrade the contour of the land to allow for improved and additional gravesite locations; and to minimize risk to burial and maintenance equipment while retaining the overall landform and spatial characteristics of this section of the cemetery.

Section Q currently has an elevated ridge with steep slopes that make burials in this area difficult and hazardous **(Figure 4, Pictures 4a - 4d)**. Improving drainage and recontouring would provide for gravesites in an additional 2.7-acre area. Adjusting the contour would not only improve drainage of the site but would allow for safe usage of heavy equipment and vehicles used for burial operations, protect employee safety, and avoid damage to historic resources by reducing the slope of the area. The decreased slope would also allow for safer and more efficient ground maintenance and decrease erosion issues that result in eroding soils accumulating along the eastern historic perimeter brick wall. The need for the re-contouring of Section Q is also recommended in the Anderson National Historic Site Cultural Landscape Report - Treatment Plan (June 2015).

Figure 4. Photos Identifying Existing Conditions to be Mitigated

4a: Photo looking west across the center of Section Q from its' eastern edge. Note the vegetation change within this sloping drain. This area has a concern for erosion, and evidence of previous slope failure caused by heavy rain events.

4b: Photo looking southeast across Section Q. Note the sloping drain running primarily from west to east down toward the historic cemetery perimeter brick wall.

Figure 4. Photos Identifying Existing Conditions to be Mitigated (Continued)

4c: Photo looking south from Section J along the eastern edge of Sections J and Q. This provides a sideview of the sloping drain of Section Q. The historic perimeter brick wall is seen along the east and south sides of Section Q.

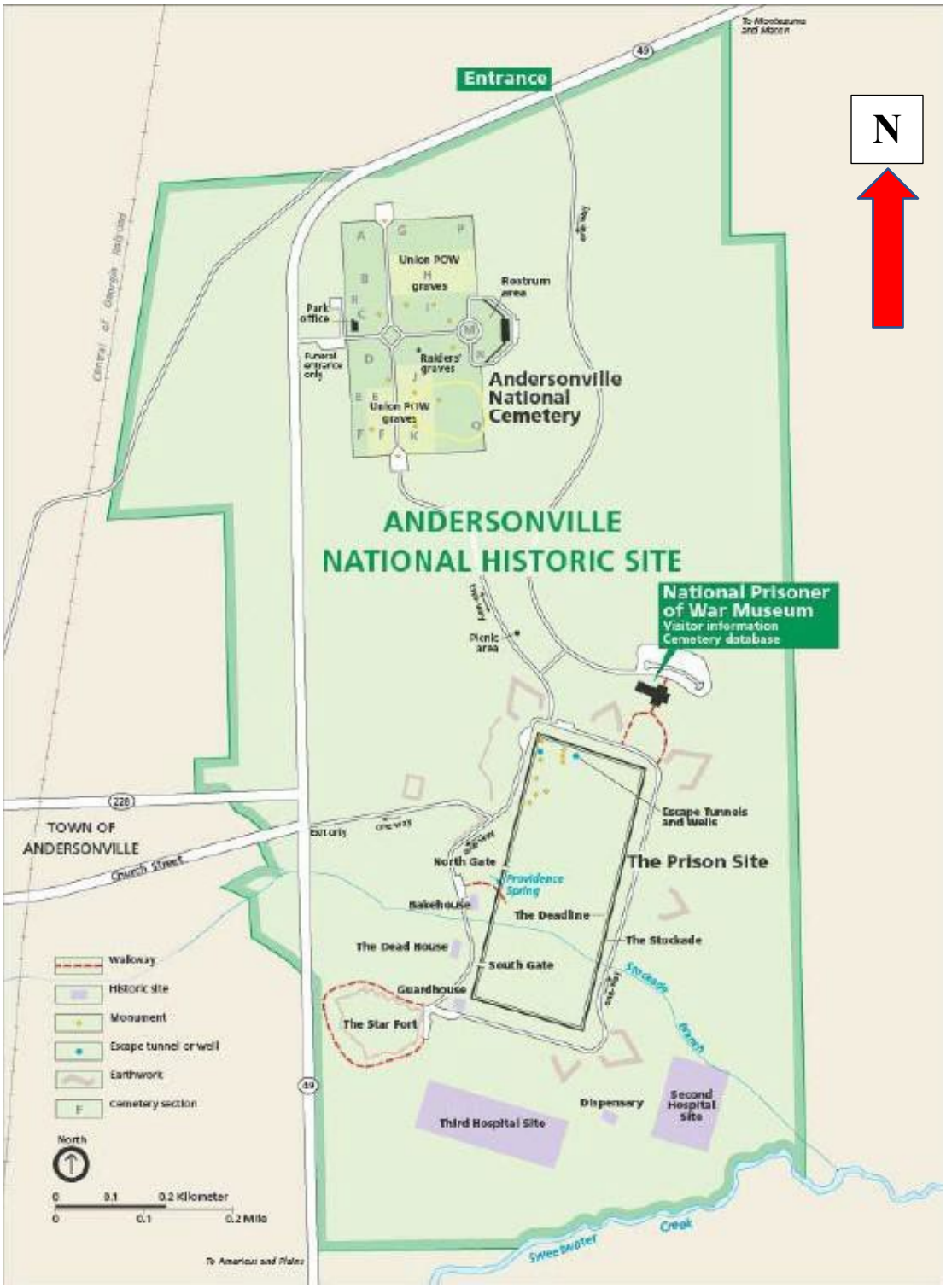
4d: Photo looking west from the eastern edge of Section Q up toward the existing burial sites. This provides a perspective of the sloping drain from the lowest point in Section Q. This elevation is currently too steep for burial operations.

History and Use of the Andersonville National Cemetery

ANDE comprises three main features that pay tribute to Civil War prisoners and all prisoners of war: the National Prisoner of War Museum, the former Camp Sumter civil war prison site, and Andersonville National Cemetery **(Figure 5)**. The park grounds are open daily, allowing access to all three of the features. The Andersonville National Cemetery is open to the burial of eligible veterans and their dependents, with approximately 200 burials occurring annually.

ANDE preserves the former Andersonville Prison (also known as Camp Sumter), a Confederate prisoner-of-war camp used during the final 14 months (February 1864 until April 1865) of the American Civil War. During that short time, 45,000 Union soldiers were imprisoned here and nearly 13,000 prisoners died on these grounds from disease due to the lack of sanitation, clean water, and nutritious food and were interred in the cemetery in trench burials. During the operation of the prison site, Confederate dead were also buried near the cemetery but were moved to Oak Grove Cemetery in Americus, Georgia following the war. In 1865, the burial grounds for the civil war prison became Andersonville National Cemetery, where veterans continue to be buried today. The national cemetery currently has 20,000 burials. ANDE is also home to the National Prisoner of War Museum which commemorates the sacrifices of all American prisoners of war. Museum exhibits tell the story of prisoners of war using artifacts, visuals, text, and oral history interviews.

Figure 5. Andersonville National Historic Site Map



Intergovernmental and Stakeholder Coordination

The CEQ and Department of the Interior (DOI) regulations emphasize the importance of consulting, coordinating, and cooperating with other agencies during the NEPA process (40 CFR § 1501.8; 43 CFR § 46.155). The NPS consults, coordinates, and cooperates with other federal, state, local, and tribal governments and other bureaus and federal agencies whenever possible concerning actions and environmental impacts within the jurisdictions of, or of interest to, those entities (43 CFR § 46.315). Furthermore, the CEQ regulations encourage cooperation with non- federal agencies that have requirements similar to NEPA to combine efforts with a goal toward reducing duplication (40 CFR § 1506.2). As the lead agency, inter-governmental and stakeholder consultation and coordination activities will be performed by NPS. A list of NPS staff, agency personnel and project design stakeholders contacted or involved in the development of this EA is included in Chapter 4.

Issues and Resource Topics Dismissed from Detailed Analysis

The following impact topics and issues were dismissed from further analysis, as explained below. Several issues were initially considered but were ultimately dismissed from detailed analysis. These dismissed issues are not potentially significant, are not critical to choosing among alternatives, or are not controversial. These issues are described below, including the reason(s) why further analysis was not warranted.

Table 1-1 presents an overview of environmental resources, the analysis approach, and rationale used in this EA to address each resource. Environmental resources selected for detailed analysis are further discussed in Chapter 3.

Table 1-1 Overview of Environmental Resource Analysis Approach

Environmental Resource	Approach	Rationale
Water Resources: Surface Water	Briefly Discuss/Dismiss	Surface water would be positively impacted by the Proposed Action by improving drainage and decreasing soil erosion.
Water Resources: Subsurface Water	Briefly Discuss/Dismiss	Subsurface water would not be affected by the Proposed Action.
Water Resources: Wetlands	Briefly Discuss/Dismiss	The actions proposed would not impact any wetlands.
Water Resources: Water Quality	Discuss	A decrease in stormwater quality has a higher chance of occurrence during the filling, grading and excavation activities associated with the Proposed Action.
Geological Resources including Soils	Discuss	Soil disturbances would occur during excavation, filling, and grading activities.
Archaeological and Cultural Resources	Discuss	The Proposed Action would have the potential to affect archaeological and cultural resources, if encountered.
Visitor Experience	Discuss	The Proposed Action would cause a temporary impact to visitor experience to include temporary interruption in traffic/transportation patterns and temporary changes in scenic views.
Noise	Briefly Discuss/ Dismiss	Construction activities would cause a temporary increase in noise in the project area.
Air Quality	Briefly Discuss/ Dismiss	The actions proposed would not cause a change to air quality beyond the current conditions.
Biological Resources: Vegetation and Sensitive Habitats	Briefly Discuss/Dismiss	Section Q contains primarily grass and weedy vegetation. The project area contains no unusual, protected, or critical vegetation resources.
Biological Resources: Wildlife – Migratory Birds & Mammals	Briefly Discuss/Dismiss	The project area contains no unusual, protected, or critical habitat for wildlife to include migratory birds or mammals.
Environmental Justice: Racial/ Ethnic Minorities	Briefly Discuss/Dismiss	The Proposed Action would not have any impact on minority and low-income

Environmental Resource	Approach	Rationale
and Low- Income Populations		population.
Environmental Justice: Protection of Children from Environmental Health Risks and Safety Risks	Briefly Discuss/Dismiss	The Proposed Action would not affect the environmental health or safety of children.
Socioeconomics	Briefly Discuss/Dismiss	The Proposed Action would not have any impact on socioeconomic factors.
Greenhouse Gas and Climate Change/Resiliency	Briefly Discuss/Dismiss	The Proposed Action would not have any impact on Greenhouse Gas and Climate Change/Resiliency

Surface Water

Sweetwater Creek forms the southern boundary of the park and Prison Branch, a tributary of Sweetwater Creek, is an integral part of the cultural landscape of the Civil War prison camp **(Figure 6).** Data on water quality is primarily based on collection stations on creeks near the park but not within its boundaries. Studies in these areas have identified impaired waters due to exceedances in pH levels and fecal-indicator bacteria concentrations (e.g., fecal coliform) that exceed limits for freshwater bathing. Sweetwater Creek and Prison Branch are located approximately 4,900 and 2,300 feet, respectively, from the limits of the project area.

The project area is located more than 2,000 feet from the nearest surface water. Water from the site flows through a valley into Sweetwater Creek. However, potential for off-site stormwater runoff impacts caused by the Proposed Action negligible and further analysis of surface water resources is dismissed.

Subsurface Water

There are no water supply wells located within the Andersonville National Cemetery. Potable water and sanitary services are provided by the City of Andersonville.

There are no impacts to geological groundwater resources due to the Proposed Action therefore, further analysis of subsurface water issues is dismissed.

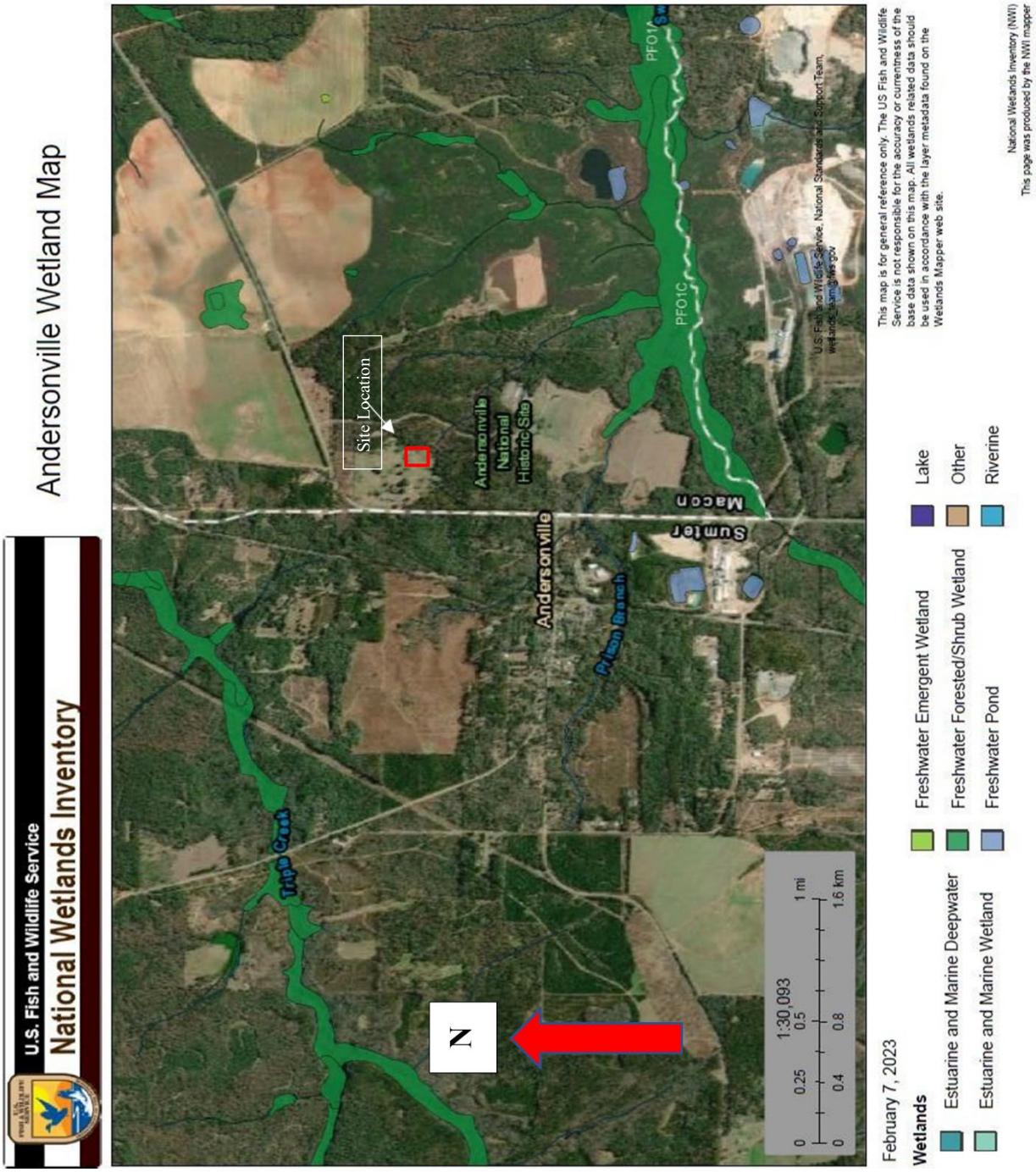
Figure 6. Local Surface Water Features

Wetlands

Jurisdictional wetlands are those areas subject to regulatory authority under Section 404 of the CWA and EO 11990, Protection of Wetlands. Wetlands are defined by the USACE and the USEPA as, "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR § 328.3[b]). Wetlands are protected as a subset of the Waters of the US under Section 404 of the CWA; the USACE requires a permit for any activities crossing wetlands or other Waters of the US.

The US Fish and Wildlife Service (USFWS) National Wetlands Inventory was reviewed to identify potential wetlands resources in the area of the Proposed Action. Based on this review and observations made on-site, no wetlands areas are located within Section Q **(Figure 7)** therefore, further analysis of wetland resources is dismissed.

Figure 7. National Wetlands Inventory Map



Noise

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or otherwise results in an adverse human response. Actual response to noise can vary according to the type and characteristics of the noise source, distance between the noise source and receptor, sensitivity of the receptor, and time of day. Sensitive noise receptors are identified facilities or land uses that would be most sensitive to the effects of noise, such as residences, schools, patient care facilities, and childcare centers.

The unit used to measure the loudness of noise is the decibel (dB). Most community noise standards utilize A-weighted decibels (dBA) as the measure of noise, as it provides a high degree of correlation with human annoyance and health effects. A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to functioning of the human ear.

Construction activities would create a temporary increase in noise levels at the Andersonville National Cemetery related to construction equipment and earth moving operations. These activities, however, would be confined to normal working hours and would be short-term in nature. Construction-related noise impacts would be negligible and would not be allowed during burial memorial services.

The Proposed Action would result in no impact on noise resources over the long term and further analysis is dismissed.

Air Quality

The USEPA sets limits on certain air pollutants, including setting limits on how much can be in the air anywhere in the US. USEPA calls these pollutants "criteria" pollutants and establishes National Ambient Air Quality Standards (NAAQS) for these pollutants (42 U.S.C. §7403). A geographic area with air quality that is cleaner than the primary standard is called an "attainment" area; areas that do not meet the primary standard are called "non-attainment" areas. Macon County, GA is located within an area designated as an "attainment area."

The Proposed Action of grading and filling Section Q would require site preparation, ground disturbance, and construction support and would result in short-term, localized, adverse effects on air quality and short-term, negligible, adverse effects on regional air quality. Under the Proposed Action, fugitive dust would be generated from excavating, filling, compacting, and grading activities, as well as combustion emissions from construction-related vehicles and equipment.

Combustion emissions associated with construction-related vehicles and equipment would be negligible because most vehicles would be driven to and kept at work sites for the duration of construction activities. Additionally, as is the case with PM_{10} emissions associated with site preparation activities, emissions generated by construction equipment would be temporary and short-term and would likely dissipate quickly; therefore, no measurable sustained impact to air quality would occur because of the use of construction-related vehicles or equipment.

Projected combustion emissions are based on the scenario of 10-hour workdays, five days per week, for simultaneous construction activity over the course of 6 months (24 weeks). A specific equipment list and horsepower rating for the equipment has not been determined, therefore, emission factors were representative of a fleet-wide average, and a standard equipment list for construction was used. (Santa Barbara County Air Pollution Control District (APCD) Form 24 - Table 2, 1997)

Dust emissions generated from construction activities can vary substantially depending on levels of activity, specific operations, and prevailing meteorological conditions. Using conservatively high estimates (based on moderate activity levels, moderate silt content in affected soils, and a temperate climate), the standard dust emission factor for construction activity is estimated at 1.2

tons of dust generated per acre per month of activity (USEPA 1995). This factor is referenced to total suspended particulates, instead of specifically PM_{10} or $PM_{2.5}$, and consequently results in conservatively high estimates. Based on the conservatively high estimate that the entire project acreage would be disturbed at any one time (2.68 acres or 116,820 SF), a projected total of about 3.22 tons per month of dust would be generated.

Increased fugitive dust (i.e., PM_{10} emissions) resulting from activities under the Proposed Action would be reduced through standard dust minimization practices (e.g., regularly watering exposed soils, soil stockpiling, and soil stabilization). These standard dust minimization measures can reduce dust generation by 75%, thereby reducing dust emissions to approximately 0.73 tons per month (USEPA 1995). Although any substantial increase in PM_{10} emissions is inherently adverse, implementation of these dust minimization measures would limit the total quantity generated during project implementation. Increased PM_{10} emissions associated with the Proposed Action would be short-term and temporary and would be minimized using dust suppression techniques.

Air quality would not be adversely affected by the Proposed Action therefore further analysis is dismissed.

Biological Resources

Biological resources include native or naturalized plants and animals and the habitats in which they occur. Sensitive biological resources are defined as those plant and animal species listed as threatened or endangered, or proposed as such, by the USFWS, and GADNR, The Endangered Species Act (ESA) of 1973 and the State of Georgia's Chapter 391-4-10, Protection of Endangered, Threatened, Rare or Unusual Species, protect listed species against killing, harming, harassment, or any action that may damage their habitat. Species of concern are not protected by law but could become listed and protected at any time.

Sensitive habitats include those areas designated by the USFWS as critical habitat protected by the ESA and sensitive ecological areas as designated by state or federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer/winter habitats). A copy of the USFWS List of threatened and endangered species report (April 18, 2023) is

included in Appendix B.

Vegetation

Approximately 135 acres of the ANDE landscape is intensively managed, consisting mainly of lawn and ornamental shrubs and trees. In the unmaintained natural sections of the park, the vegetation is primarily an oak/hickory/pine association. The most prominent exotic plant within the site is kudzu.

The cemetery's vegetation consists primarily of a manicured zoysia grass turf interspersed with recently planted and mature historic trees. Trees in the project area and access routes to the site include cedar (*Cedrus deodara*) and magnolia (*Magnolia grandiflora*). Mature cedar specimens exist from where the paved road comes into the cemetery near the GA monument, and continue eastward toward Section Q, interspersed with a narrow dirt access route (the eastward access route) along the historic cemetery wall.. Mature specimen trees that are contributing to the Andersonville National Historic Site Cultural Landscape are further addressed under the Cultural Resources section. No trees of interest are present along the access route to Section Q leading south from the Rostrum area (the southward access route).

Based on site observations, the USFWS IPaC resource list, and the NPS.gov/ANDE website, there are no threatened or endangered plant species or critical habitat located or observed within the project area. IPaC lists three flowering species but no critical habitats are within the project area. There would be no effect to ESA-listed plant species from the proposed action and consultation under section 7 of the ESA is not required.

Birds

These are listed in 50 CFR § 10.13, are ecologically and economically important to the US, and recreational activities, such as bird watching, studying, and feeding, are practiced by many visitors to the park. The Migratory Bird Treaty Act (MBTA), as amended, was enacted to protect migratory birds from capture, pursuit, hunting, or removal from natural habitat. Over 800 species are currently protected under the MBTA. In 2001, EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, was issued to ensure that federal agencies consider environmental effects on migratory bird species and, where feasible, implement policies and programs that support the conservation and protection of migratory birds.

Birds are abundant at ANDE and include Eastern bluebirds, turkey vultures, Northern cardinals, warblers, owls, and hawks. According to Audubon.org, the area is home to roughly 180 bird species throughout the year. According to the GADNR's Biodiversity Portal no rare birds were identified at the proposed site.

The Proposed Action will not disturb or impact migratory birds. Based on site observations, the USFWS IPaC resource list, and the NPS.gov/ANDE website, there are no threatened or endangered bird species or critical habitat located or observed within the project area. There would be no effect to ESA-listed migratory bird species from the proposed action and consultation under section 7 of the ESA is not required.

Mammals

Mammals known to commonly occur in the Andersonville National Historic Site area include white-tailed deer (*Odocoileus virginianus*), gray squirrels (*Sciurus carolinensis*), striped skunks (*Mephitis mephitis*), eastern cottontails (*Sylvilagus floridanus*), and nine-banded armadillos (*Dasypus novemcinctus*). Some other animals more rarely sighted in the area include foxes, bobcats, bats, and raccoons.

Based on site observations, the USFWS IPaC resource list, and the NPS.gov/ANDE website, there are no threatened or endangered species or critical habitat located or observed within the project area. There would be no effect to ESA-listed mammal species from the proposed action and consultation under section 7 of the ESA is not required.

Environmental Justice

In 1994, EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, was issued to focus attention of federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on such communities are identified and addressed. Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045, *Protection of Children from Environmental Health and Safety Risks*, was introduced in 1997 to prioritize the identification and assessment of environmental health and safety risks that may affect children and to ensure that federal agencies' policies, programs, activities,

and standards address environmental health risks and safety risks to children.

The project is contained within ANDE. The Proposed Action would be contained within the park and would not disproportionately affect minorities or affect the health and safety of children therefore, further analysis is dismissed.

Socioeconomic Issues

Socioeconomics is defined as the basic attributes and resources associated with the human environment, particularly population and economic activity. Human population is affected by regional birth and death rates, as well as net in-or-out migration. Economic activity typically comprises employment, personal income, and industrial growth. Impacts on these fundamental socioeconomic indicators can also influence other components such as housing availability and public services provision. From this analysis, it was determined that local employment would temporarily increase the number of jobs to serve the construction phase of the Proposed Action. Therefore, any impacts would result in a positive effect to the local economy and further analysis for socioeconomic issues is dismissed.

Greenhouse Gas and Climate Change/Resiliency

Climate change refers to long-term changes in temperature, precipitation, and other weather patterns around the world, which are largely driven by human activities such as the burning of fossil fuels and deforestation. These changes can have severe impacts on ecosystems, economies, and human health, among other things. Climate change, in conjunction with other environmental stressors, impacts all aspects of park management from natural and cultural resources to park operations and visitor experience. 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), and these changes will accelerate weathering, deterioration, and loss of cultural resources. Understanding climate change projections and associated levels of uncertainty will facilitate planning actions that facilitate resiliency regardless of the precise magnitude of change experienced in the coming decades.

Resilience refers to the ability of a system to adapt to and recover from disruptions and changes. In the context of climate change, resilience can refer to the ability of ecosystems, communities, and

infrastructure to withstand and recover from the impacts of climate change. In relation to Andersonville National Cemetery, climate change could have a number of impacts that could affect the cemetery's resilience. For example, increased temperatures and changes in precipitation patterns could affect the growth of vegetation in and around the cemetery, which could impact the cemetery's aesthetic value and also make it more vulnerable to erosion and other forms of damage. Additionally, extreme weather events such as flooding, storms, and wildfires could potentially damage the cemetery and surrounding infrastructure.

The scope and duration of the Proposed Action would not be enough to have negative impact on the climatology of the area. The contribution to greenhouse gas emissions would likely to occur only during construction and the contribution would be negligible. The Proposed Action would have a positive impact and increase the resiliency of the environmental resource by decreasing soil erosion caused by increased storm activity related to climate change, therefore, further analysis is dismissed.

CHAPTER 2 ALTERNATIVES

2.0 Design Alternatives

NEPA guidelines require that an assessment of potentially effective and reasonably feasible alternatives be provided. As part of the project design, the following issues were considered:

1) Reduction of existing slopes,
2) Drainage,
3) Erosion and sediment control,
4) Maintenance of operations, and
5) Potential impacts to historical site features.

A total of nine different grading design options were evaluated prior to identifying the option described in the Proposed Action Alternative. The following table **(Table 2-1)** provides an overview of the design options that were considered, the possible number of burial plots, and amount of earthwork required for each option. Alternatives dismissed early in the design process as infeasible are not identified in **Table 2-1**.

Table 2-1 Overview of Design Options Evaluated

Option	Description of Design Option	Rough Order of Magnitude (ROM) of Possible Burial Sites	ROM of Earthwork Required (CY)	Comments
A	Maximum Fill	726	4,050 Fill	Linear Alignment
B	Maximum Cut	N/A	N/A	Not Further Developed
C	Large Terrace	624	8,165 Cut	Curvilinear Alignment
D1	Multiple Small Terraces	582	4,361 Cut	Curvilinear Alignment
D2	Multiple Small Terraces	674	995 Fill	Linear Alignment
D3	Multiple Small Terraces	1,000	1,664 Fill	Linear Alignment
E1	Large Retaining Wall	704	8,213 Cut	Curvilinear Alignment

E2	Multiple Small Retaining Walls	694	1,144 Cut	Curvilinear Alignment
F	Steep Slope	657	9,066 Cut	Curvilinear Alignment

These options were developed, discussed, and vetted with the project design team which included the NPS, US Army Corps of Engineers (USACE) and the design engineer and project manager ZAPATA during the concept stage of the design process. Site visits and design meetings were conducted by the project team. As a result of this process, a hybrid or combination of the nine options was decided upon as the Preferred Alternative/ Proposed Action.

Proposed Action and Preferred Alternative – Cut, Fill and Regrade Section Q

To provide additional gravesites for the Andersonville National Cemetery, the NPS proposes to modify the contour of the land and repair and improve drainage in Section Q. The design for the Proposed Action is based on a hybrid/combination of re-grading options noted in **Table 2.1** and consists of the cutting and filling of the existing slopes with Section Q and re- grading the area to obtain a 4 to 1 slope running from the west cutting east across the site. This would create one large, terraced area and maximize the balancing of the cut and fill required to reach final design grade elevations. The import and export of fill would not be required. The total acreage of the project area is approximately 2.7 acres, of which approximately 2.36 acres would be disturbed. The limits of disturbance and limits of construction would include the construction contractor's laydown area, the location is in a gravel parking area east of the rostrum and will not be visible to the public. Heavy equipment anticipated to be utilized includes an excavator, end-loader, and grader. The construction period of performance is estimated to be no more than 90 days.

No Action Alternative

The No-Action Alternative was carried forward for further analysis in accordance with NEPA guidelines and CEQ requirements. Under this alternative, Section Q would not be excavated, filled, or graded. No new disturbance to soils or vegetation would occur. No additional areas would be impacted, and no additional cemetery plots would be available in this area for the NPS to expand the burial area. Since Section Q is the last undeveloped area in the cemetery the No Action Alternative would cause the cemetery to be closed to new interments. Stormwater erosion issues

would continue to impact the area to include the potential long-term impacts to the historic cemetery perimeter wall. Cemetery operations and grounds maintenance activities would also continue to be negatively impacted. The No Action Alterative would not meet the purpose of and need for the project; however, NEPA requires consideration of the No Action Alternative. In addition, NPS guidance recommends inclusion of the No Action Alternative in the evaluation to assess any environmental consequences that may occur if the project is not implemented. Therefore, this alternative will be carried forward for analysis. The No Action Alternative also serves as a baseline against which the considered alternatives can be compared.

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes existing environmental conditions and evaluates potential impacts to resources that could potentially be affected by implementation of the project. A previously conducted study, *NPS State of the Park Report, Andersonville National Historic Site 2014,* was relied upon for much of the resource descriptions provided in this section.

As required by NEPA, CEQ, and NPS guidelines, the description of the affected environmental resource and level of analysis should focus on the relevant information needed to understand the environmental impacts of the alternatives under consideration. The level of analysis should also be commensurate with the significance of the environmental resource, as well as the magnitude of the potential impact associated with the action. For instance, biological resources will not be affected by the actions proposed; therefore, this resource will not be described or analyzed in detail. However, water quality has the potential to be impacted during construction; therefore, the current conditions and environmental consequences will be discussed.

Environmental Impact Analysis

Environmental impacts which would result from implementation of the Proposed Action at the Andersonville National Cemetery are evaluated in this section. Analyses are presented by resource area. The examination of potential environmental impacts is intended to reduce redundancy where similar impacts are expected for each alternative and the Proposed Action. In instances where the alternative actions carried forward in this document would have identical or substantially similar environmental consequences (e.g., water resources and surface waters, etc.), the alternatives are analyzed together.

Water Resources

The Clean Water Act (CWA) of 1977 (33 USC §§ 1251 et seq.) regulates pollutant discharges that could affect aquatic life forms or human health and safety, such as those potentially released during temporary construction activities. Section 404 of the CWA, and Executive Order (EO) 11990, *Protection of Wetlands*, regulate development activities in or near streams or wetlands. EO 11988, *Floodplain Management*, requires federal agencies to take action to reduce the risk of flood damage; minimize the impacts of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. Federal agencies are directed to consider the proximity of their actions to or within floodplains.

Additionally, the National Pollutant Discharge Elimination System (NPDES) requires that regulated federal entities must implement SWPPPs or stormwater management programs that use BMPs that effectively reduce or prevent the discharge of pollutants into receiving waters.

The intent of the Safe Drinking Water Act (SDWA) of 1974 is to protect public health by regulating the nation's public drinking water supply. Most recently amended in 1996, the act requires several actions to protect drinking water and its sources, which include rivers, lakes, reservoirs, springs, and ground-water wells.

Water Quality

Section Q of the Andersonville National Cemetery does not currently hold any NPDES permits for on-site stormwater management. Section Q is an unimproved plot of land located adjacent to wooded areas to the south and east, and existing burial plots to the north and west. Cemetery Road, an asphalt paved single lane road, is located approximately 0.05 miles west and approximately 0.07 miles north of Section Q. Stormwater runoff at the Andersonville National Cemetery is accomplished via sheet flow across the site. Short-term construction activities associated with the Proposed Action could impact the quality of stormwater runoff by increasing sediment loading during storm events. Environmental impacts which would result from implementation of the Proposed Action are further discussed.

Alternative 1 No Action

If the No Action Alternative were selected, the existing drainage slopes and steep grade of Section Q would continue to impact stormwater quality and cause further soil erosion which would build up soil and debris along the cemetery's historic perimeter brick wall located adjacent to Section Q, obstructing drainage and potentially impacting the integrity of the wall. Although not likely to be a significant impact, potential negative impacts would be ongoing.

Alternative 2 Proposed Action

The discharge of stormwater runoff from a construction project must be authorized by a separate NPDES Permit for Storm Water Discharges Associated with Construction Activities for Stand Alone Construction Projects. In GA, the USEPA has delegated authority to issue NPDES permits for storm water discharges to the GA Department of Natural Resources (GADNR). In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p.416, as amended), the federal CWA, as amended (33 U.S.C. 1251 et seq.), under the Rules and Regulations promulgated pursuant to each of these Acts, new and existing stormwater point sources within the State of GA are required to have a permit. Upon submittal of a Notice of Intent, construction projects are authorized to discharge stormwater associated with construction activity to the waters of the State of GA in accordance with the limitations, monitoring requirements and other conditions set forth in Parts I through VI of the General NPDES Permit No. GARl0000l. The issuance of the stormwater permit by the GA Environmental Protection Division (GAEPD) in accordance with the General Permit for Stormwater Discharges from Construction Activities requires the development and implementation of a specific SWPPP for construction activities at sites with land disturbance totaling one acre or more and where stormwater discharges from the site enter a Multiple Stormwater Sewer System (MS4) that leads to natural drainage channels or streams classified as surface waters of the US.

Under the Proposed Action, the contour grading improvements would reduce the current steep slope conditions and decrease the rate of stormwater flow across Section Q. The Proposed Action would require soil excavation, backfilling, and grading. During construction, BMPs would be incorporated to reduce potential impacts to stormwater runoff in accordance with the construction stormwater permit and the SWPPP. BMPs would include soil stabilization and erosion control,

collection, and containment of excavated materials, and backfilling all excavated soils to their original location where feasible. Construction activities would be performed in compliance with the SWPPP, which would outline the use of various temporary structural and nonstructural BMPs (silt fencing around the area, temporary seeding in areas not being actively worked, gravel at site entrances and exits, etc.) designed to minimize the amount of sediment in stormwater runoff.

The impact to stormwater and ultimately surface water quality caused by the temporary increase of sediment loading from implementation of the Proposed Action in the short-term would be minimal. The implementation of BMPs during construction would minimize the amount of sedimentation in stormwater runoff. In the long term the Proposed Action would have a beneficial impact by improving drainage in Section Q and minimizing soil erosion and potential impacts to the perimeter brick wall. Therefore, no notable impacts to water quality or surface water resources would result from implementation of the Proposed Action.

Geological Resources, including Soils

Geological resources analyzed in this study include topography, geology, and soils. Topography is the general shape and arrangement of a land surface. Geology describes the structure and configuration of the earth's surface and subsurface materials and their inherent properties. Soils are the unconsolidated surface materials overlying bedrock or other subsurface material. They are typically described in terms of their composition materials, elasticity, slope, permeability, water-holding capacity, and erosion potential.

The soils at the Andersonville National Park are part of the Tallahatta formation that generally consists of fine to medium-fine sands. The Tallahatta formation overlays a formation of sands and clays. Bauxite and kaolin are mined and processed immediately outside the park. Soils are generally deep and well drained sandy loam or loamy sand. However, the soils are highly erodible when the protective vegetative cover is removed.

Predominant soil composition in the general area of Section Q includes the Faceville and Orangeburg Series. The Faceville Series consists of a sandy loam that is well drained. The Orangeburg Series consists of a loamy sand that is well drained **(Figure 8).**

Section Q has a steep slope that makes it difficult to maintain vegetation to stabilize the surficial soils causing erosion that has transported sediment and debris from the slope and depositing it along the eastern cemetery perimeter wall. Debris also washes into the drainage structures associated with the perimeter wall.

Environmental impacts to geological resources, specifically soils, are further discussed.

Alternative 1 No Action

Under the No Action Alternative, soils would continue to be impacted by current site conditions. The existing grade would remain too steep to provide safe access for people and equipment. Soil erosion caused by the existing steep slope would continue to occur, and the transport of sediment and debris from the slope would continue to be deposited along the cemetery's eastern historic perimeter wall obstructing the drainage structures associated with the wall.

Alternative 2 Proposed Action

Implementation of the Proposed Action would include activities associated with the grading and flattening of the steep slope present in Section Q. Construction activities would involve excavation,

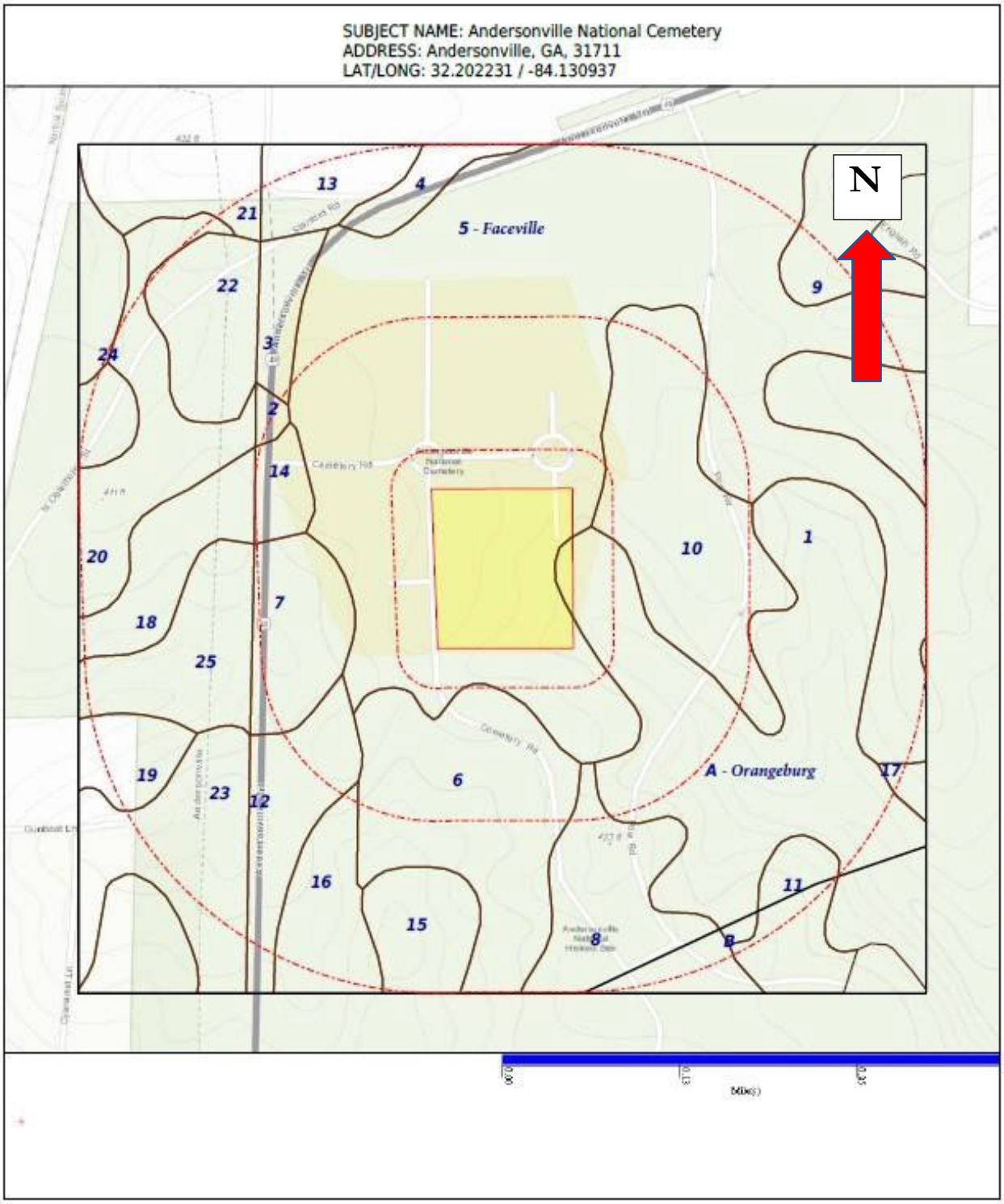
back filling, and grading, and would take place in areas identified as containing Faceville and Orangeburg Series. Faceville and Orangeburg soil series are primarily sandy loam and loamy sand. These soil types are primarily coarse-grained (sandy loam) and tend to have generally moderate to high erodibility.

As of the 70% project design phase, Section Q is being regraded so that it has a balanced condition. No additional soil would be imported to the site. Existing soils would be excavated from a higher elevation area and filled in areas of lower elevation in order to reduce the exiting slope of the area. The maximum depth of soil excavation is 5 feet below existing grade. Temporary stockpiling of soil may be required during construction however, it would occur within the limits of the Proposed Action. During construction, BMPs would be incorporated to reduce potential impacts to the soil caused by stormwater erosion in accordance with the construction stormwater permit SWPPP. BMPs would include soil stabilization and erosion control, collection, and containment of excavated materials, and backfilling of excavated soils within Section Q. The project would occur in a primarily grass-covered area. Construction would be implemented in a manner to prevent erosion and

exposure of bare ground.

Under the Proposed Action, construction activities, such as grading and re-contouring of the soil, would result in an unavoidable but temporary disturbance of soil. Implementation of SWPPP BMPs during construction operations would limit the potential effects resulting from soil erosion caused by stormwater run-off. Impacts to soils at Section Q would be minor in both the short-term and long-term. Therefore, the impact to geological resources from implementation of the Proposed Action would be negligible and in the long term beneficial by eliminating soil erosion in Section Q. No measurable adverse impacts to geological resources would result from implementation of the Proposed Action.

Figure 8. Soil Types Across Section Q



Archaeological and Cultural Resources

Several federal laws and regulations have been established to manage archaeological and cultural resources, including:

1) the National Historical Preservation Act (NHPA) (1966),
2) the Archaeological and Historic Preservation Act (AHPA) (1974),
3) the Archaeological Resource Protection Act (ARPA) (1979), and
4) the Native American Graves Protection and Repatriation Act (NAGPRA) (1990).

The NHPA of 1966 (16 USC § 470) established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation (ACHP), which outlined procedures for the management of cultural resources on federal property. Cultural resources can include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. The NHPA requires federal agencies to consider potential impacts to cultural resources that are listed, nominated to, or eligible for listing on the NRHP; designated a National Historic Landmark; or valued by modern Native Americans for maintaining their traditional culture. Section 106 of NHPA requires federal agencies to consult with the appropriate State Historic Preservation Office (SHPO) if their undertaking might affect such resources. The NPS will be performing tribal consultation relating to the Proposed Action.

The term "archaeological resource" means any material remains of past human life or activities which are of archaeological interest, as determined under uniform regulations promulgated pursuant to NHPA of 1966 (16 USC § 470). Such determinations include, but are not limited to, pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items. Non-fossilized and fossilized paleontological specimens, or any portion or piece thereof, shall not be considered archaeological resources, under the regulations under this paragraph, unless found in archaeological context.

Andersonville National Historic Site was listed when the National Register was established in 1970. Its significance was later documented in a National Register nomination prepared by staff

of ANDE in February 1976. The nomination was accepted by the Keeper of the National Register on November 24, 1978 and certified by the NPS on November 27, 1978. National Register 70000070 - listed property includes ANDE as it was configured in 1976. At the time the nomination was prepared, the park encompassed 466.22 acres, including the earlier Prison Park, as well as the Andersonville National Cemetery (Cultural Landscape Report, June 2015).

The ANDE is also composed of several cultural landscapes that can be characterized as historic sites and historic designed landscapes. This project lies entirely within the area of the Andersonville National Cemetery Cultural Landscape (CRIS-CL 550147), also documented in the Andersonville National Historic Site Cultural Landscape Report (CLR), 2015 (Microsoft Word - 1 ANDE Introduction.docx (nps.gov)). The Proposed Action's Area of Potential Effect (APE) consists of a 2.7-acre unimproved area in Section Q located in the southeastern area of Andersonville National Cemetery. The CLR defines "[t]he vegetative character of the National Cemetery character area is created through a combination of **mown turf** and **groupings of large deciduous and evergreen trees**, punctuated with **large specimen trees** (CLR, p. 113). Location of contributing mature specimen trees in Section Q and J are identified in Figure 446 (Treatment Recommendations: National Cemetery Area) showing trees that are contributing to the historic spatial character of the cemetery (CLR, p. 255). These trees are arranged around the perimeter of the site; the trees and their root zones would be protected and excluded from the regrading campaign during this project. Accounting for protection of the trees, visual changes to the APE resulting from the Proposed Action would be negligible and would be considered an improvement compared to current conditions and therefore would not impact the integrity of the cemetery and the NRHP listing.

The Andersonville Cemetery National Historic Site has undergone numerous archaeological investigations. Approximately 16 percent of the park has been adequately surveyed. There are six known archaeological sites located within the park. The historic prison site has 64 subsites, and the cemetery has four subsites. There are two other sites that are listed as local resources. All the sites are in good condition. The prison site and national cemetery are listed in the National Register, although the archaeological components of these sites are not addressed in the nomination. (State of the Park, 2014).

None of the listed archaeological sites are located in the vicinity of the APE. An Archaeological Survey was performed in Section Q by NPS Southeast Archaeological Center (SEAC) in April of 2014 to investigate the presence of artifacts and document Section 106 compliance. The results of this investigation were documented in the report titled Archaeological Testing of Sections Q and D within Andersonville National Cemetery at ANDE, April 2 - 4, 2014, SEAC Acc. 2652 dated May 2, 2014.

The cemetery perimeter wall (Historical Structure (HS)-108 and List of Classified Structures (LCS)-006105) was constructed in 1878 - 1879 and consists of a 4.5-foot-tall red brick wall. The wall has capstones about every four feet apart on the top of the wall. The wall is approximately one foot wide and encloses 27.15 acres of the cemetery. The current wall replaced an earlier perimeter wall built by the US Army from salvaged lumber during the early stages of cemetery development. Although essentially rectangular in form, the wall also includes exterior protrusions that enclose the terminal loops of Cemetery Road (N-S). Since its original construction, alterations were made to the entrance gates in 1931 and 1960, and a portion of the original wall was removed to construct the rostrum in 1941. The wall has been periodically repaired or locally rebuilt due to vehicular impact and other damage. Despite these relatively minor changes, the cemetery wall is considered a contributing resource (Cultural Landscape Report, June 2015).

Alternative 1 No Action

Other than ongoing minor impacts to the perimeter brick wall caused by soil erosion, no changes to the existing archaeological and cultural resources would occur under implementation of the No Action Alternative. Soil erosion caused by the existing steep slope located in Section Q would continue to occur, and the transport of sediment and debris from the slope would continue to be deposited along the perimeter brick wall obstructing the wall's vaulted drainage structures. Therefore, selection of this alternative would have a negligible impact on archaeological and cultural resources, specifically the cemetery's historic perimeter wall.

Alternative 2 Proposed Action

Construction activities associated with the Proposed Action could potentially impact archaeological and cultural resources by: 1) encountering archaeological Civil War artifacts during excavation operations, and 2) accidental damage to the perimeter brick wall caused by construction activities.

As it relates to the presence of artifacts and burial remains in Section Q, testing was performed by NPS SEAC in April of 2014 to investigate the presence of artifacts and document Section 106 compliance. The results of this investigation were documented in the report titled Archaeological Testing of Sections Q and D within Andersonville National Cemetery at Andersonville National Historic Site (ANDE), April 2-4, 2014, SEAC Acc. 2652 dated May 2, 2014. The investigation recommended "that the expansion of the cemetery into sections Q and D would not have an adverse effect on cultural resources. Systematic shovel testing and a gradiometer survey were unable to uncover any cultural features".

Ground Penetrating Radar (GPR) and EM-61magnatomneter surveys were also recently performed by GeoView, Inc. in the eastern area of Section J, which was previously proposed to be utilized as the construction contractor's lay down area for the Section Q grading project. The results of the survey are documented in the Final Report for Geophysical Investigation Andersonville National Historic Site Andersonville, GA, GeoView Project Number 36961 Rev.1, dated August 25, 2022. The report was submitted to the NPS ANDE and SEAC cultural resource staff for review. The investigation did not identify any major anomalies that indicated the presence of any artifacts or cultural features.

In order to identify and address any artifacts that could potentially be encountered as part of excavation and grading activities in Section Q, the construction contractor would provide an on- site archaeologist to observe and monitor excavation operations. If artifacts are encountered, all work will stop and the ANDE NPS Cultural Resource Specialist would be notified to respond to the discovery.

The southeastern corner of the cemetery perimeter brick wall is located adjacent to the eastern and southern sides of Section Q. At the base of the eastern brick wall there are several vaulted openings that allow stormwater to drain out of the cemetery through the wall. The wall is a historically significant feature; therefore, potential direct impacts to the wall caused by construction activities will be mitigated by using BMPs to include the creation of a construction buffer along the wall. Also the design of the grading project includes the establishment of a 35-foot-wide access path adjacent to eastern and southern perimeter wall which will also provide a buffer during future operations of the cemetery.

Due to the National Cemetery being part of a National Historic Site there has been a substantial

amount of NHPA related documentation and SHPO compliance work conducted over time. These activities are documented in Section 6.0 and included in Appendix A. In compliance with Section 106 of the NHPA, the NPS consulted with GA Historic Preservation Division SHPO and the SHPO concurred with the NPS determination"…that the proposed project would have no adverse effect to historic properties within its area of potential effect, as defined in 36 CFR Part 800.5(d)91) (Response Letter dated December 18, 2020, to Ms. Bridget Beers, Museum Curator, National Park Services, ANDE, from Ms. Jennifer Dixon, Jewett Center for Historic Preservation, Stockbridge, GA).

In conclusion, because previous investigations of the APE did not identify archeological resources, an archeological monitor will be provided to identify inadvertent discoveries, and BMP's relating to the use of heavy machinery during construction will be implemented to avoid accidental damage to the historic perimeter wall, potential adverse impacts to archaeological and cultural resources are not likely to occur from the Proposed Action. In the long term the Proposed Action would have a beneficial impact by improving drainage in Section Q. The Proposed Action would minimize soil erosion and potential obstruction of the perimeter wall drainage structures and creating a 35- foot-wide buffer along the perimeter wall which will protect it from accidental damage caused by cemetery operations. Therefore, there is no potential adverse impact to archaeological and cultural resources that are anticipated as a result from implementation of the Proposed Action.

Visitor Experience

Visual resources are defined as the natural and manufactured features that comprise the aesthetic qualities of an area. These features form the overall impressions that an observer receives of an area or its landscape character. Landforms, water surfaces, vegetation, and manufactured features are considered characteristic of an area if they are inherent to the structure and function of a landscape.

Determination of the severity of impacts to visual resources is based on the level of visual sensitivity in the area. Visual sensitivity is defined as the degree of public interest in a visual resource and concern over adverse changes in the quality of that resource. In general, an impact to a visual resource is considered major if implementation of the Proposed Action would result in substantial alteration to an existing sensitive visual setting.

Transportation and circulation refer to the movement of vehicles throughout a road and highway

network. Primary roads are comprised of major interstates and other principal arterials designed to move traffic but do not necessarily provide access to adjacent areas. Secondary roads are comprised of rural routes and major streets that provide direct access to residential and commercial areas. The capacity of transportation networks and quality of circulation may be described as annual daily traffic or level of service.

Short-term construction related traffic would occur during the construction phase. Construction traffic would be required to enter the site via Cemetery Road to the west or to the north, increasing traffic along those roads during times when trucks and equipment enter and exit the site.

Visitors to the park typically spend at least two hours in the park. Those with an interest in the Civil War or military history could easily spend most of the day. Since the adoption of the Director's Order regarding National Cemetery Operations in 2010, the Andersonville National Park staff have worked to improve the standard of care and communicate to the public the operational components of the National Cemetery (State of the Park Report, 2014).

Visitor experience and scenic view temporary impacts which could result from implementation of the Proposed Action are further discussed.

Alternative 1 No Action

Under the No Action Alternative, the proposed construction activities necessary to grade and improve drainage in Section Q would not occur. Existing conditions with respect to transportation and circulations would remain unchanged.

No changes to existing visitor experience, including scenic views and visual resources would occur under implementation of the No Action Alternative. Therefore, selection of this alternative would have no foreseeable impacts to visitor experience in the Proposed Action.

Alternative 2 Proposed Action

Construction activities in Section Q could potentially impact the scenic views of the Andersonville National Cemetery and the visitor experience within the limits of the Proposed Action. Construction activities within Section Q would occur primarily between the hours of 8:00 am and 5:00 pm and would be limited to weekdays. The construction area could be visible to visitors located in

southeastern portion of the cemetery. Construction activities would be short-term.

Therefore, impacts to scenic views at Section Q would be limited to the period of construction and are considered negligible. Temporary screening or fencing would not be needed.

Short-term construction related traffic would occur during the construction phase. Heavy equipment and trucks would access the proposed construction site location from two approaches. The first approach starts from GA State Route 49 at the north main entrance into ANDE onto POW Road. This is the longest route to the proposed site at 1.2 miles along a narrow, asphalt paved, two lane road. The road is in good condition currently. However, there are two tight right hand turns along the route and overhanging trees that may prove to be limiting factors for access depending on the size of the construction equipment coming into the site. The second approach is from GA State Route 49 at the west side of ANDE through an entry not typically available to the public onto Cemetery Road. This is the shortest route to the proposed site at .2 miles along a narrow, asphalt paved two lane road. The road is in fair condition currently with minimal surface cracking. The challenge with this entry is the turn off GA State Route 49 into the site is a very tight turn radius, between two brick columns with a swing gate, that would need to be opened and closed as each vehicle passes through. The space between the columns is approximately 18 feet wide. There are some low hanging trees that would need to be evaluated depending on the size of the equipment coming in. Despite the initial turn off the highway, this approach offers the most direct access to the site.

With both approaches, there are two roundabouts that would be encountered at the end of the route along Cemetery Road that should not cause an issue for equipment and trucks headed to the site. At the second roundabout, trucks and heavy equipment would turn onto a short asphalt drive and then onto a dirt road that would take them to Section Q. This dirt access is about 250 feet to Section Q from the roundabout. A construction entrance and truck wash that allows the efficient cleaning of sediment and debris from exiting trucks and equipment from the site at the point where the dirt road meets the asphalt road should be provided. Construction traffic may cause additional wear and tear on the asphalt roadways and there should be considerations made for some road repairs following the completion of the proposed work.

Under the Proposed Action, short-term construction-related traffic would occur during the construction phase. Section Q rehabilitation operations would only include on-site excavation and

grading activities. The trucking of soil would not be conducted minimizing the impact to roads. No other changes to traffic and circulation would occur; therefore, no long-term adverse impacts would occur to the transportation system at the Andersonville National Cemetery.

Due to Section Q's proximity to active burial areas, construction activities would be temporally halted during burial ceremonies. Impacts to visitor experience at the Andersonville National Cemetery would be temporary and effects to the visitor experience would be negligible if the Proposed Action were implemented.

Table 3-2 presents a comparison of environmental effects and a summary of results of the impact analysis as it relates to the Proposed Action and No Action Alternatives.

Table 3-2 Comparison of Environmental Effects

Environmental Resource	Proposed Action	No Action Alternative
Water Resources: Surface Waters	No Impact	No Impact
Water Resources: Subsurface Waters	No Impact	No Impact
Water Resources: Wetlands	No Impact	No Impact
Water Resources: Water Quality	Negligible Impact Beneficial	Continued Impact
Transportation and Circulation	Negligible Impact	No Impact
Geological Resources, including Soils	Negligible Impact Beneficial	Continued Impact
Archaeological and Cultural Resources	No Impact Beneficial	Continued Impact
Visitor Experience and Scenic Views	Negligible Impact	No Impact
Noise	Negligible Impact	No Impact
Air Quality	No Impact	No Impact
Biological Resources: Vegetation and Critical Habitat	No Impact	No Impact
Biological Resources: Wildlife – Migratory Birds & Mammals	No Impact	No Impact
Environmental Justice: Minority and Low-Income Populations	No Impact	No Impact
Environmental Justice: Protection of Children from Environmental Health Risks and Safety Risks	No Impact	No Impact
Socioeconomics	No Impact	No Impact
Greenhouse Gas and Climate Change/Resiliency	No Impact Beneficial	No Impact

CUMULATIVE IMPACTS

Cumulative impacts on environmental resources result from the combined impact of other past, present, and reasonably foreseeable future projects in the area. Cumulative impacts can result from individually minor, but collectively substantial actions undertaken over a period of time by various agencies (federal, state, and local) or individuals. Informed decision making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

The Andersonville National Cemetery has remained relatively unchanged in recent decades as existing burial plots have been utilized. Section Q has remained relatively unchanged since the Andersonville National Cemetery was developed. Although it is reasonably foreseeable that Andersonville National Cemetery would continue to make and add improvements, additional development in Section Q outside the Proposed Action is not being considered.

Water Quality. Past development around Section Q has been limited to the creation of Cemetery Road, which increased impermeable surfaces. The Proposed Action would not increase the amount of impervious surface. Implementation of BMPs during construction would result in minimal cumulative effects to surface water quality due to sediment loading caused by soil erosion. Additionally, the Proposed Action would likely result in a beneficial contribution to stormwater management resources by reducing the rate of sheet flow across Section Q and therefore reducing soil erosion and the amount of sediment in stormwater.

Soil Resources. Past development of the areas surrounding Section Q has not impacted soil or resulted in modified soil. Development has not previously occurred in Section Q. The grading and contouring of Section Q for additional burial sites would cause negligible impacts to soil resources. The project design consists of a balanced approach to cut and fill operations. Additional soil would not be imported to or removed from the site. There would not be an increase of impervious surfaces. Unavoidable impacts to ground cover at Section Q would be mitigated by reseeding the area, therefore impacts would be negligible in both the short-term and long-term.

The Proposed Action would have a beneficial effect on soil resources in Section Q by decreasing the potential for soil erosion. Additionally, the Proposed Action would provide a beneficial quality

to the aesthetic view by eliminating soil and debris from accumulating along the existing historic perimeter wall. The localized effects of the Proposed Action would contribute only negligibly to cumulative impacts.

Archaeological and Cultural Resources. Numerous archaeological studies and investigations have been performed in the Andersonville National Cemetery as various sections of the cemetery have been developed to facilitate internment operations and to operate and maintain the site. Section Q would be the final section of the cemetery to be used for interments. Since no archaeological features are known to exist in Section Q and past actions are not known to have had a negative impact on archaeological and cultural resources, the Proposed Action would not result in the contribution to cumulative impacts to archaeological or cultural resources. Therefore, it is unlikely that the development of Section Q would result in significant negative impacts on the environment or cultural resources.

The Proposed Action, which includes the grading of Section Q, would have a positive long-term affect by reducing the potential for heavy equipment used during internment operations to inadvertently damage the historic perimeter brick wall due to existing steep slope conditions. Potential impacts to the wall caused by the Proposed Action would be mitigated by establishing setbacks for heavy machinery and utilizing BMPs for equipment operations used during construction.

Scenic View and Visual Resources. The scenic view and visual resources of the Andersonville National Cemetery have always been a high priority for NPS managers, and to date there have been no negative environmental impacts to the cemetery from construction-related activities or development of additional burial areas that have occurred.

Past development of the areas surrounding Section Q have enhanced the scenic view and visual resources at the Andersonville National Cemetery. The temporary presence of construction equipment and related construction activities such as the use of temporary fencing would cause negligible impacts to scenic views during the Proposed Action. The installation of stormwater BMPs, disturbed soil and groundcover, and the presence of heavy machinery would be restricted to Section Q, minimizing the impact on the scenic view and visual resources of the surrounding

area. These localized effects of the Proposed Action would contribute only negligibly to cumulative impacts. However, it is important to consider the potential for future actions that may have cumulative effects on the scenic view and visual resources of the Andersonville National Cemetery. For example, future development of the surrounding areas or changes in land use could impact the scenic view and visual resources of the cemetery.

Visitor Experience. The Proposed Action would create temporary noise and exhaust odors from the use of construction equipment, and have a visual impact, causing a temporary negligible impact to the visitor experience at the Andersonville National Cemetery. Construction activities would be short-term and not exceed 90 days in duration and there would be no future impacts once the construction was completed. The localized effects of the Proposed Action would contribute only negligibly to cumulative impacts.

Past impacts to transportation and circulation in the area have been limited to increased traffic during burial services. Impacts to transportation and circulation from the Proposed Action would be short-term and minor. Localized effects of the Proposed Action would contribute only negligibly to cumulative impacts. No other changes to traffic and circulation would occur; therefore, no long-term impacts would occur to the transportation system at the Andersonville National Cemetery and within ANDE.

CHAPTER 4 LIST OF CONTRIBUTORS AND SUPPORTING PERSONNEL

The following is a list of NPS and other governmental agency personnel and project stakeholders contacted or involved in the development of this EA:

National Park Service – Gia Wagner, Superintendent, Andersonville National Historic Site

National Park Service – Bridget A. Beers, Museum Curator, Cultural Resource Specialist, Andersonville National Historic Site

National Park Service – Jody Mays, former Chief of Interpretation and Resource Management, Andersonville National Historic Site

National Park Service – Craig K. Davis, former Stormwater, Chief of Facilities Management and Park Structural Fire Coordinator, Jimmy Carter National Historic Park & Andersonville National Historic Site

National Park Service – Eric Bezemek, Archaeologist, Southeast Archaeological Center

National Park Service – Kevin Porter, former Archaeological Technician, Southeast Archaeological Center

National Park Service – Meredith Hardy, former Section 106 Coordinator, Southeast Archaeological Center

National Park Service – Jami Hammond, Regional Environmental Coordinator, National Park Service Regional Office, South Atlantic Gulf Region 2

USACE Savannah District – Shauna Stotler, IIS Program Manager, Contracting Officers Representative

USACE Savannah District – Andrea Farmer, RPA, Archaeologist

USACE Savannah District – Suzanne Hill, Environmental Resource Specialist

USACE Savannah District – Leigh Jahnke, Biologist

USACE Savannah District – Kimberly Garvey, Chief of Planning

ZAPATA – Heather McArthur, Civil Engineer, Project Manager for ZAPATA

Preparers:

The Blackledge Group, Inc. – K. Dawn Blackledge, PG, President and Sr Project Manager

The Blackledge Group, Inc. – Philip Elson, Sr Project Manager

REFERENCES

List of SHPO consultation, archaeological, and historical documents related to Andersonville National Cemetery and ANDE that were available are as follows:

Response Letter dated December 18, 2020, to Ms. Bridget Beers, Museum Curator, National Park Services, ANDE, from Ms. Jennifer Dixon, Jewett Center for Historic Preservation, Stockbridge, GA, stating that the repairing drainage and contouring project in Sections Q and J would have no adverse effect on historic properties within its area of potential effect.

Letter dated November 30, 2020, from Ms. Bridget Beers, Museum Curator, National Park Services, ANDE, to Ms. Jennifer Dixon, Jewett Center for Historic Preservation, Stockbridge, GA, concerning Environmental Review Addendum 4 to Andersonville NHS: FY 2018-2022 Maintenance Operations Macon County, GA.

Trip Report on Archaeological Testing and Monitoring at the Andersonville National Cemetery, ANDE, Sumter County, GA, February 4-5, 2020, SEAC Accession 3122. February 10, 2020.

Historic Resource Study, ANDE, Anderson GA, National Park Service Southeast Regional Office, written by Liz Sargent, Deborah Slaton, Tim Penich, dated June 2018.

Response Letter dated May 11, 2018, to Ms. Bridget Beers, Museum Curator, National Park Services, ANDE, from Ms. Jennifer Dixon, Jewett Center for Historic Preservation, Stockbridge, GA, stating that the radio tower, Section Q grading, and tree replacement portions of the maintenance operation project, as proposed, would have no adverse effect on historic properties.

Response Letter dated April 12, 2018, to Ms. Bridget Beers, Museum Curator, National Park Services, ANDE, from Ms. Jennifer Dixon, Jewett Center for Historic Preservation, Stockbridge, GA, regarding various maintenance operations FY 2018 – 2022 projects.

Addendum to Andersonville NHS: FY 2018-2022 Maintenance Operations Macon County GA, HP-171201-00. March 19, 2018.

Addendum 3 to Andersonville NHS: FY 2018-2022 Maintenance Operations Macon County, GA HP-171201-001. April 13, 2018.

Response Letter dated December 22, 2017, to Ms. Bridget Beers, Museum Curator, National Park Services, ANDE, from Ms. Jennifer Dixon, Jewett Center for Historic Preservation, Stockbridge, GA, regarding Andersonville National Cemetery Maintenance Operations FY2018-FY2022 Environmental Review Form and Supporting Documentation.

Andersonville National Cemetery Maintenance Operations FY2018-FY2022, GA, Historic Preservation Division Environmental Review Form and Supporting Documentation. November 17, 2017.

Andersonville National Historic Site Cultural Landscape Report, prepared by Wiss, Janney, Elstner Associates, Inc.; John Milner Associates, Inc.; Liz Sargent, dated June 2015.

Archaeological Testing of Sections Q and D within Andersonville National Cemetery at ANDE, April 2-4, 2014, SEAC Acc. 2652. May 2, 2014.

Foundation Document, ANDE, National Park Service, dated February 2014. State

of the Park Report, ANDE, GA, dated 2014.

Ground Penetrating Radar Survey of Andersonville National Historic Site, GA Department of Transportation, dated October 2005.

Andersonville National Historic Site Georgia, General Management Plan Development Concept Plan Environmental Assessment, National Park Service, June 1988.

Historic Resource Study and Historic Map, ANDE, Office of History and Historic Architecture Eastern Service Center, Edwin C. Bearss. July 31, 1970.

List of NEPA Guidance Documents

- National Environmental Policy Act Implementing Regulations, Council on Environmental Quality, 40 CFR Parts 1500-1508. May 20, 2022.
- National Park Service NEPA Handbook, dated 2015.
- National Park Service NEPA Handbook Supplemental Guidance, Preparing Focused and Concise EAs, dated September 2015.
- National Park Service NEPA Handbook Supplemental Guidance, Writing Impact Analysis Sections for EAs and EIS, dated September 2015.

Additional Documents Reviewed

- Andersonville National Cemetery Rehabilitation Project Andersonville, GA, 70% Design Submittal, Total Design Analysis, Contract No. W912HN-18-D-2001, Delivery Order No. W912HN-21-F-2016, ZAPATA, December 2021.
- Andersonville National Cemetery Rehabilitation Project, List of threatened and endangered species that may occur in your proposed project location that may be affected by the proposed action, April 18, 2023.
- Santa Barbara County Air Pollution Control District (APCD) Form 24 -Table 2, 1997 (for all emission factors except for PM2.5) South Coast Air Quality Management District, California Environmental Quality Act (CEQA) Air Quality Handbook, 1993 (for PM2.5 emissions fraction of PM10 for off-road diesel equipment), USEPA 2006 (for emission factors for excavator).

APPENDIX A – SHPO CONSULTATION DOCUMENTS

APPENDIX B – USFWS IPAC RESOURCE LIST REPORT