



Kingsley Plantation Development Concept Plan and Environmental Assessment



Cover photo: The Slave Cabin arc at Kingsley Plantation.

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National Park Service
Denver Service Center
Attn: Kingsley DCP/Charles Lawson
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ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

Acronyms	Abbreviations
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EO	Executive Order
DO	Director's Order
FEMA	Federal Emergency Management Agency
IVUMC	Interagency Visitor Use Management Council
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
PEPC	Planning, Environment, and Public Comment
PM	Procedural Manual
SFHA	Special Flood Hazard Area
TIMU	Timucuan Ecological and Historic Preserve
USFWS	US Fish and Wildlife Service
VUM	Visitor Use Management
WSOF	Wetlands Statement of Findings

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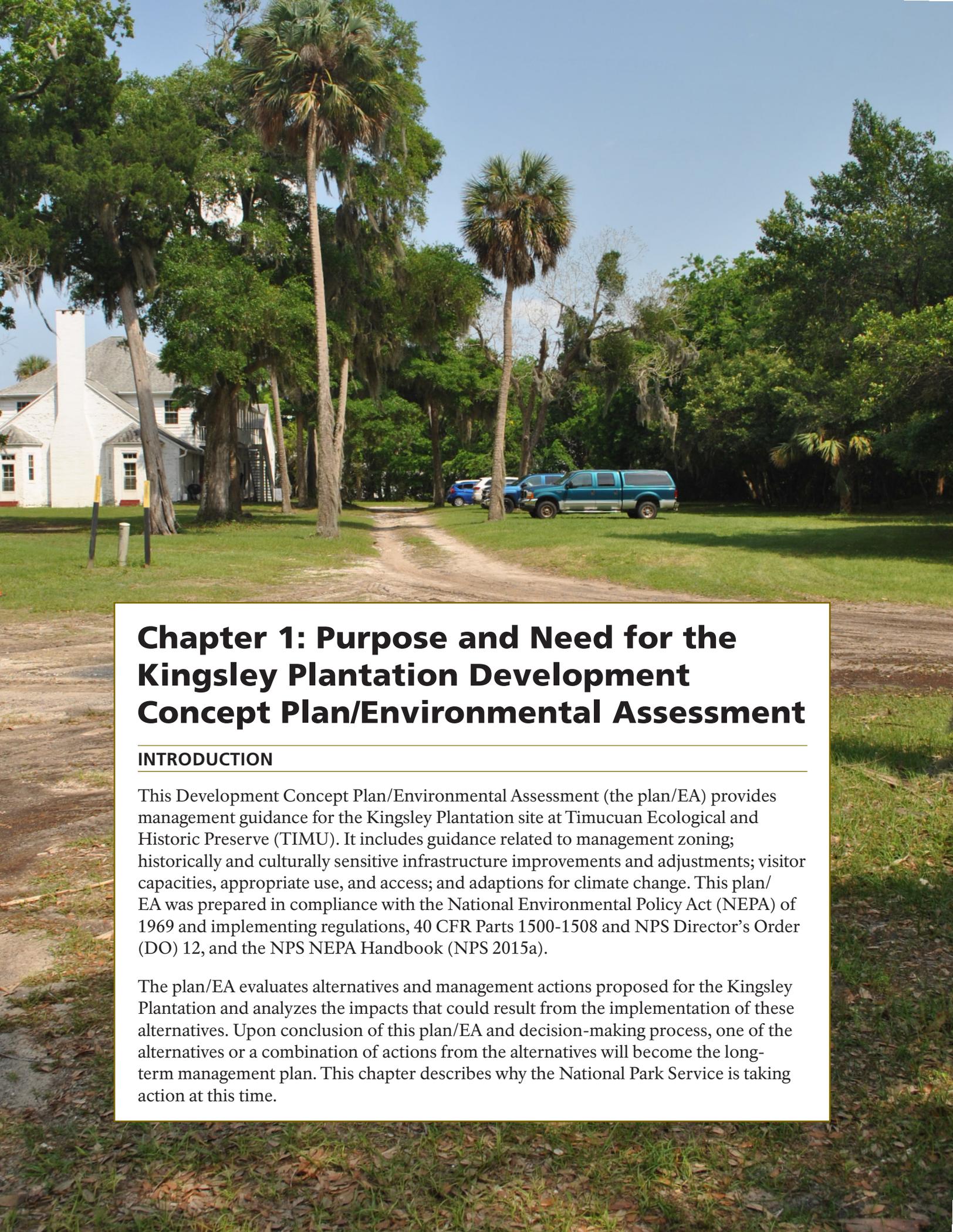
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Chapter 1: Purpose and Need for the Kingsley Plantation Development Concept Plan/Environmental Assessment

INTRODUCTION

This Development Concept Plan/Environmental Assessment (the plan/EA) provides management guidance for the Kingsley Plantation site at Timucuan Ecological and Historic Preserve (TIMU). It includes guidance related to management zoning; historically and culturally sensitive infrastructure improvements and adjustments; visitor capacities, appropriate use, and access; and adaptations for climate change. This plan/EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations, 40 CFR Parts 1500-1508 and NPS Director's Order (DO) 12, and the NPS NEPA Handbook (NPS 2015a).

The plan/EA evaluates alternatives and management actions proposed for the Kingsley Plantation and analyzes the impacts that could result from the implementation of these alternatives. Upon conclusion of this plan/EA and decision-making process, one of the alternatives or a combination of actions from the alternatives will become the long-term management plan. This chapter describes why the National Park Service is taking action at this time.

PURPOSE AND NEED FOR THE PLAN/EA

The purpose of this plan/EA is to develop management guidance for resource protection, visitor access, and interpretation at Kingsley Plantation (Figure 1).

The plan/EA is needed to address a range of issues and opportunities associated with Kingsley Plantation that include:

- Addressing the protection and appropriate interpretation of recent archeological discoveries at the plantation.
- Considering updated guidance and treatment recommendations for the plantation’s cultural landscape.
- Considering actions that could improve vehicle circulation and adequacy of parking at Kingsley Plantation.
- Considering changes to the trail network to improve site accessibility, visitor orientation, wayfinding, and circulation through the landscape.
- Reconsidering the 1996 General Management Plan’s zoning at Kingsley Plantation to better align with park priorities to protect and interpret the site’s cultural resources.
- Considering strategies to address increasing visitation at Kingsley Plantation and on Fort George Island.
- Developing strategies for managing noise, safety, and threats to resources caused by public boating and recreation outside of the preserve’s boundaries on the Fort George River.

PARK PURPOSE, SIGNIFICANCE, AND SELECT FUNDAMENTAL RESOURCES AND VALUES

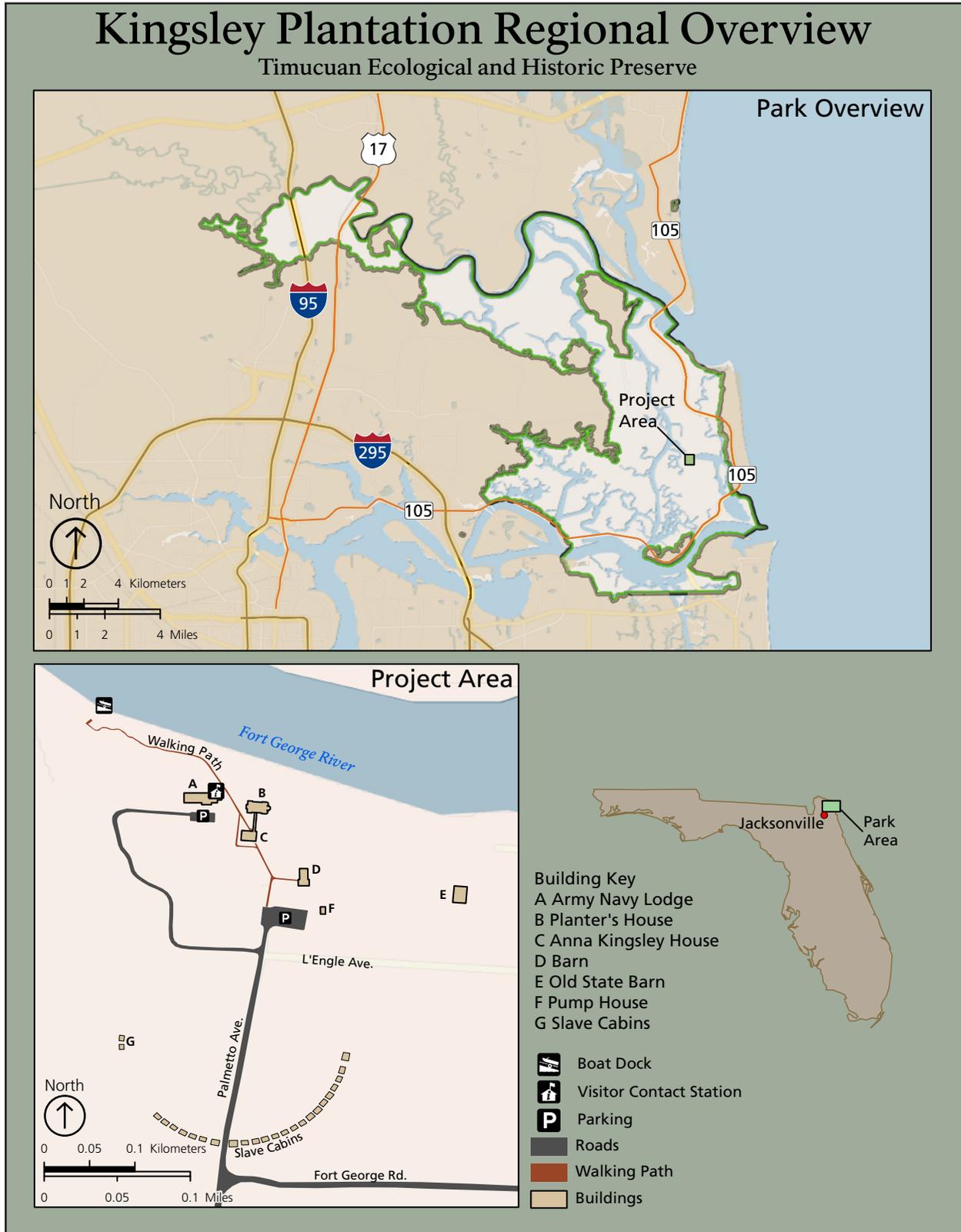
The park’s purpose, significance, and fundamental resources and values, as well as statutory mandates and NPS Management Policies (NPS 2006), are identified in the park foundation document (NPS 2012) and shape and guide what this plan proposes. The purpose of Timucuan Ecological and Historic Preserve is:

“to protect the natural ecology of over 46,000 acres of lands and waters and over 6,000 years of human history along the St. Johns and Nassau rivers in northeast Florida.”

The preserve is significant for many reasons, including its status as one of the largest remaining salt marsh estuaries on the Southeast Coast and the preserve’s evidence for continuous occupation by humans, who relied on the resources of the preserve. Additionally, the strategic location of the preserve and the interaction of cultures throughout the region had a profound impact on American history. Kingsley Plantation specifically is the oldest surviving example of an antebellum Spanish Colonial plantation. Its associated slave cabins (originally thirty-two; now twenty-five ruinous structures) are the largest concentration of existing tabby-constructed quarters for enslaved people found in the United States. The site is also the first location in the United States where archeological investigations were designed and focused on revealing information to enlighten understanding the lives of the enslaved in plantation life (Slaton, Sargent, and Penich 2016, NPS 2012).

Kingsley Plantation is one of the park’s fundamental resources and values.

FIGURE 1. THE KINGSLEY PLANTATION IN TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE



The 1970 National Register of Historic Places Nomination for Kingsley Plantation and the 2016 update identify the property as a historic district significant at the national level under National Register Criteria A (agriculture, recreation), B (politics/government, military), C (architecture), and D (archeology-historic, non-aboriginal, and architecture) for the period of 1791, the year John McQueen acquired the land and began to develop the plantation domestic precinct, to 1955, when the property was acquired by Florida for inclusion in the state park system (Slaton, Sargent, and Penich 2016, NPS 2012, Snodgrass 1970). Two distinct eras are present and contribute to the significance of Kingsley Plantation, the Plantation Era, and the Club Era (NPS 2020). The plantation, with its eighteenth and 19th century buildings, is mentioned in the preserve’s enabling legislation (Public Law 100-249) dated February 16, 1988, as a significant historic asset essential to achieving the purpose of the preserve and maintaining the preserve’s significance.

The TIMU General Management Plan (NPS 1996) included planning for Kingsley Plantation that focused on the visitor experience and public use of the site as well as development needs of the area. The plantation has also been the subject of a cultural landscape report (Hartrampf Engineers, Architects, Surveyors and the Jaeger Company 2006), an ethnohistorical study (Jackson and Burns 2006), a cultural landscape inventory and report (NPS 2007), and archeological investigations focused on the history of enslaved individuals at the plantation, including a focus on the African Burial Ground (Davidson 2011, NPS 2011, 2021). A National Register of Historic Places update, which referenced these updated documentation projects and research discoveries, was accepted in 2016 (Slaton, Sargent, and Penich 2016).

Historic structure reports have been completed for the Planter’s House (also known as the “Main House”) (Hartrampf Engineers, Architects, Surveyors 2005b) and Anna Kingsley House (also known as the “Kitchen House”) (Hartrampf Engineers, Architects, Surveyors 2005a), and a historic structure report for the tabby slave cabins is in draft (Panamerican Consultants, Inc. and Wiss, Janney, Elstner Associates, Inc. 2022).

For more details on the park’s significance and fundamental resources and values, see the park’s foundation document.

THE PLANNING PROCESS

The process employed in creating this plan/EA is sequential, and the presentation of the plan/EA follows the stages in this process. It began with collecting, reviewing, and defining key information about the Kingsley Plantation and its function and identifying opportunities to improve resource protection and visitor appreciation of the site. This information was used to identify issues and criteria that the proposed action needed to address. In the subsequent and central stage of the process, an interdisciplinary team identified potential actions and tested them against the purpose and need of the plan and possible environmental issues. As part of civic engagement, the park prepared web-based information to seek comments on initial alternative concepts from the local community and held a virtual public meeting in September of 2022, two in-person open house meetings in October of 2022, and an invited stakeholder meeting, also in October 2022. Input from the public will also be sought as a part of the review of this plan.



The Planter's House

PROJECT AREA

The project area for the plan covers the historic Kingsley Plantation, a popular visitor destination of the Timucuan Ecological and Historic Preserve. The plantation is located on the northernmost point of Fort George Island in Jacksonville, Florida, and lies on more than 60 acres (NPS 2020). It includes the former Planter's House, the plantation's support buildings, and enslaved persons' quarters that were all constructed during the site's primary agricultural use period. These buildings formed the nucleus of the antebellum plantation activities of the island (Hartrampf Engineers, Architects, Surveyors and the Jaeger Company 2006). The site also contains extensive archeological resources including the foundations of a sugar mill and an African Burial Ground, recently identified in the heart of the plantation site, but currently invisible on the landscape (Davidson 2011). The plantation also includes buildings and features from the site's period of recreational and resort era development, as well as modern improvements (Hartrampf Engineers, Architects, Surveyors and the Jaeger Company 2006).

SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The extent and nature of environmental issues and alternatives that should be considered during the NEPA review were considered early in the process. Issues were identified to help emphasize the important environmental concerns related to the project and to help identify impact topics and focus the impact analysis.

Determination of topics for impact evaluations were identified based on the following:

- federal laws, regulations, and executive orders, including NPS NEPA guidance documents
- NPS *Management Policies* (NPS 2006)
- public scoping input
- relevance of proposed actions to park resources

The plan includes some actions that are operational in nature or that are not sufficiently developed to allow meaningful analysis under NEPA; these were not carried forward in this EA. The impacts of these future management strategies would be analyzed in future compliance as needed.

When an alternative is selected and approved, implementation of that alternative will depend on future funding. The approval of a plan does not guarantee that the funding and staffing needed to carry out the plan will be forthcoming. Full execution of the approved plan could occur many years in the future.

Implementation of the approved plan/EA could also be affected by other factors. If the plan/EA is approved, additional feasibility studies and more-detailed planning and environmental documentation may need to be completed before any proposed actions can be carried out.

ISSUES AND IMPACT TOPICS RETAINED FOR ANALYSIS

“Issues” or “environmental issues” can be problems, concerns, conflicts, obstacles, or benefits that would result if the proposed action or alternatives, including the no-action alternative, were implemented. Issues may be raised by the National Park Service, other agencies, tribal governments, or the public. The primary issue associated with actions in the plan is understanding the changes to the natural and built environment that would be realized under any alternative of the development concept plan (DCP).

Impact topics represent resources that could be affected, either beneficially or adversely, by implementing the proposed alternatives. The National Park Service used an interdisciplinary review process as well as existing studies and data and public comments to determine which resources would likely be affected by this project. Issues are retained for consideration and discussed in detail if they met one or more of the following criteria:

- the environmental impacts associated with the issue are central to the proposal or of critical importance
- a detailed analysis of environmental impacts related to the issues is necessary to make a reasoned choice between alternatives
- the environmental impacts associated with the issue are a big point of contention among the public or other agencies
- there are potentially significant impacts to resources associated with the issue

The following topics were carried forward for further analysis in this EA.

Cultural Landscapes

The entire project area is located in the Kingsley Plantation Historic District, listed in the National Register in 1970 and updated in 2016. The Kingsley Plantation Cultural Landscape (CRIS-CL 550110) was determined eligible for the National Register in 2007 at the national level of significance. The cultural landscape’s period of significance encompasses development episodes from 1765 to 1955. Since actions from the preferred alternative of this plan would have an impact on the cultural landscape, this impact topic is retained.

Archeological Resources

The Kingsley Plantation Historic District contains known precontact archeological resources and archeological resources associated with the period of significance of the Kingsley Plantation (1791-1955). Due to the proposed ground disturbing actions contained in the plan alternatives, archeological resources are retained as an impact topic.

Historic Structures

Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470 et seq.) and its implementing regulations under 36 CFR Part 800 require all federal agencies to consider effects of federal actions on historic properties, including historic structures eligible for or listed in the national register. The Planter’s House, a historic structure that contributes to the Kingsley Plantation Historic District, would be impacted by actions contained within the plan alternatives. This impact topic is therefore retained for analysis.

Visitor Use and Experience

The Kingsley Plantation had approximately 61,000 visits in 2022. The DCP includes actions that could impact, beneficially or adversely, current and future visitors' use and experience of the site, including access, opportunities, and circulation. Therefore, this topic is retained for analysis.

ISSUES AND IMPACT TOPICS CONSIDERED BUT DISMISSED FROM ANALYSIS

Impact topics that were considered but not carried forward for detailed analysis are listed below along with a brief discussion and rationale.

Ethnographic Resources

The plantation (and all of eastern Duval County) is included in the Gullah Geechee Cultural Heritage Corridor National Heritage Area. The plantation site itself is an ethnographic resource important to the corridor and the Gullah Geechee community. However, ethnographic resources are dismissed as an impact topic in this EA because no resources are at risk of being adversely impacted by the implementation of this plan. Park staff engage in ongoing, vigorous, and fruitful consultation with the Gullah Geechee community, including descendants of those enslaved at the Kingsley Plantation. These consultations would continue through implementation of the DCP and would continue to shape the management and protection of the cultural landscape and other ethnographic resources at the plantation site.

Wetlands

The preserve's wetlands are dynamic ecosystems that provide a beneficial interface between land and water and are afforded regulatory protection to preserve these important functions. They provide

atmospheric stabilization, erosion and flood control, groundwater recharge, and remove pollutants and toxins from surface water. Wetlands serve as breeding, nesting, and spawning grounds for fish and birds, for example, and provide a buffer from storms.

Executive Order (EO) 11990: "Protection of Wetlands" was issued by President Carter in 1977 in order "to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative...". The EO directs the National Park Service to: 1) provide leadership and to take action to minimize the destruction, loss, or degradation of wetlands; 2) preserve and enhance the natural and beneficial values of wetlands; and 3) avoid direct or indirect support of new construction in wetlands unless there are no practicable alternatives to such construction and the proposed action includes all practicable measures to minimize harm to wetlands.

Wetlands are dismissed as an impact topic because none of the proposed facilities and activities in this plan/EA would occur in jurisdictional "waters of the United States" per Section 404 of the Clean Water Act. Furthermore, proposed actions in the plan/EA would not adversely impact wetlands per NPS Director's Order #77-1 (Wetland Protection) and therefore are not subject to preparing a Wetland Statement of Findings (WSOF). All proposed activities would occur above the intertidal transitional area between the extreme higher spring tide and extreme low tide. As sea-level rise and storm surges continue to threaten resources near the project area, current, quarterly monitoring of bluff erosion adjacent to Kingsley Plantation is being conducted by the NPS Southeast Coast Inventory and Monitoring (I&M) Program to anticipate and mitigate further impacts to park lands.

Floodplains

Executive Order (EO) 11988 (Floodplain Management) and EO 13690 (Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input) require the National Park Service and other federal agencies to clearly identify the likely impacts of proposed actions in floodplains and to improve the nation's resilience to flood risk. The objective of EO 11988 is to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. EO 13690 was issued to establish a Federal Flood Risk Management Standard (FFRMS) for federally funded projects to improve the nation's resilience to floods and to ensure that new federal infrastructure will last as long as intended. NPS procedures for complying with the floodplain EOs are outlined in NPS Director's Order (DO) and Procedural Manual #77-2 (DO #77-2 and PM #77-2, respectively).

Although the proposed action would be located within the 100-year floodplain, because of the nature of the site, the use of floodplain mitigation techniques such as installing only flood-resistant infrastructure (such as the picnic shelter, crushed coquina roads and parking area) in the floodplain would not increase in the flood threat and would pose negligible financial losses from potential flood events. Compliance with applicable standards, regulations, and policies to minimize impacts on floodplain resources and loss of property or human life would be strictly adhered to during and after the construction. With these measures, the proposed action would not alter flood flows and would have negligible effects on floodplain functions or values. As such, none of the proposed activities would occur within a "high-risk coastal communities"

flood zone, as defined by FEMA as a Special Flood Hazard Area (SFHA). Coastal margins of the project area are in FEMA flood hazard Zone X (0.2% – 1% annual chance of flood) and Zone AE (1% annual chance of flood). The proposed parking lot, picnic shelter, and access road activities in the plan/EA would not adversely impact floodplain conditions and create additional hazards in these regulatory floodplain zones.

Proposed activities would have negligible impacts to floodplain values that contribute to ecosystem quality (such as wildlife habitat, dissipation of flood, sedimentation processes, and groundwater recharge). Accordingly, an SOF for floodplains would not be required per NPS DO #77-2. Furthermore, the order does not apply to historic structures or sites such as Kingsley Plantation, where the location is integral to its significance. The order does not apply to park functions, such as the proposed parking lot and picnic shelter located near water that provide for visitor use, require a small level of physical development, and do not involve overnight occupation. The impact topic is therefore dismissed from further consideration in this plan/EA.

Federally Listed Species

Aquatic and terrestrial habitat near Kingsley Plantation and across the ecological and historic preserve as a whole serve as breeding and spawning grounds for fish, birds, and shellfish and provide a variety of other important ecological functions. To safeguard these species and habitats, the Endangered Species Act of 1973, as amended, as well as NPS policies and management guidelines, provide regulatory protection of federally listed species. In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act

(BGEPA) to protect native birds from project-related impacts. While parts of the preserve, such as the Theodore Roosevelt Area, include habitat for federally listed species (NPS 2012), including the gopher tortoise and wood stork, listed species are not known to occur in the plan/EA project area or would not inhabit the project area during proposed project activities (April through August). Transient, seasonal inhabitants such as birds would not be affected by the proposed action.

According to the official list of threatened and endangered species that may occur in the general area of the Kingsley Plantation (USFWS 2022), there are ten threatened, endangered, or candidate species that may occur in the project area; however, their specific habitats are not present in the plantation area and NPS monitoring efforts indicate that they are not present. There are no critical habitats in the project area. The list identified in Table 1 includes species type, name, and occurrence status of each species identified.

Proposed activities in the Kingsley Plantation project area would have no effect on these species or their habitat per Section 7 of the Endangered Species Act. Therefore, federally listed species are dismissed as an impact topic in this plan/EA.

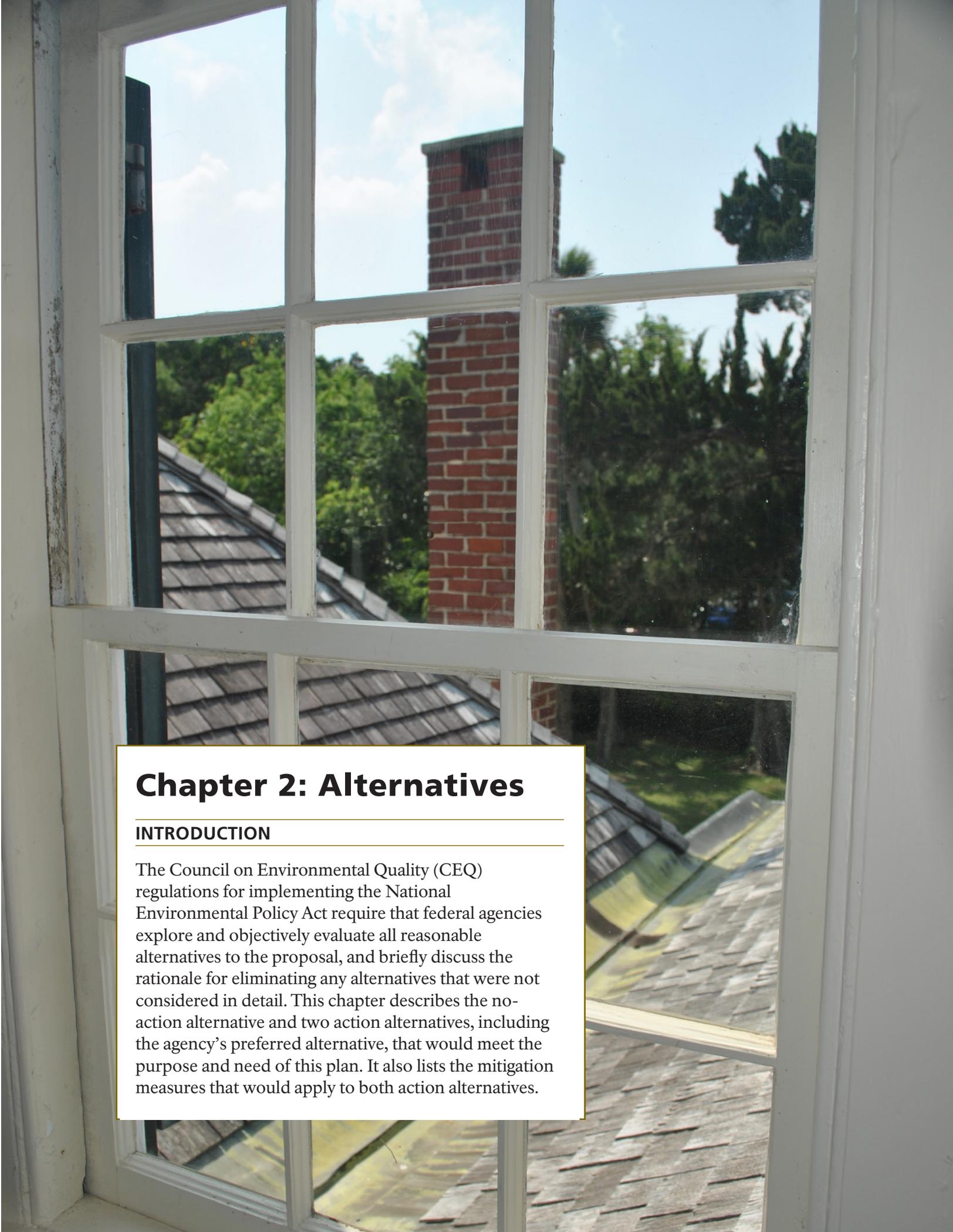
Environmental Justice

Executive Order (EO) 14096: “Revitalizing Our Nation’s Commitment to Environmental Justice for All” was issued by President Biden in 2023 in order that “. . .every person must have clean air to breathe; clean water to drink; safe and healthy foods to eat; and an environment that is healthy, sustainable, climate-resilient, and free from harmful pollution and chemical exposure.” Proposed actions in the preferred alternative would not change the condition of the environment, nor would the adjacent communities experience a change in human health of environmental burdens. Because there would be no change, this impact topic is dismissed from further consideration in this plan/EA.

Table 1. Threatened and endangered species that may occur in the project area

Species Type	Species Name	Federal Listing Status	Occurs in Project Area?
Mammal	West Indian Manatee <i>Trichechus manatus</i>	Threatened	No
Bird	Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i>	Threatened	No
Bird	Red Knot <i>Calidris canutus rufa</i>	Threatened	No
Bird	Wood Stork <i>Mycteria americana</i>	Threatened	No
Reptile	Eastern Indigo Snake <i>Drymarchon couperi</i>	Threatened	No
Reptile	Green Sea Turtle <i>Chelonia mydas</i>	Threatened	No
Reptile	Hawksbill Sea Turtle <i>Eretmochelys imbricata</i>	Endangered	No
Reptile	Leatherback Sea Turtle <i>Dermochelys coriacea</i>	Endangered	No
Reptile	Loggerhead Sea Turtle <i>Caretta</i>	Threatened	No
Amphibians	Frosted Flatwoods Salamander <i>Ambystoma cingulatum</i>	Threatened	No

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A multi-paned window with a white frame. The view outside shows a brick chimney in the center, a grey shingled roof in the lower left, and green trees in the background under a blue sky with light clouds. The window is set in a white wall.

Chapter 2: Alternatives

INTRODUCTION

The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act require that federal agencies explore and objectively evaluate all reasonable alternatives to the proposal, and briefly discuss the rationale for eliminating any alternatives that were not considered in detail. This chapter describes the no-action alternative and two action alternatives, including the agency's preferred alternative, that would meet the purpose and need of this plan. It also lists the mitigation measures that would apply to both action alternatives.

ALTERNATIVE 1 (NO ACTION/CURRENT MANAGEMENT)

The no-action alternative “sets a baseline of existing impact continued into the future against which to compare impacts of action alternatives” (NPS 2011). Under the no-action alternative, the park would continue to operate and maintain the existing facilities in their existing conditions, configurations, and locations.

Figure 2 is a plan view of the existing facilities and infrastructure under the no-action alternative.

Vehicular Circulation

The primary vehicular circulation through Kingsley Plantation would continue to be on Palmetto Avenue, a hard-packed earth-and-sand road (Figure 3), with traffic driving between the slave cabins and adjacent to the African Burial Ground. The unimproved visitor parking lot would stay in its current location in the middle of the cultural landscape with a capacity of eighteen vehicles (including two accessible spaces), and with no designated bus parking (Figure 4). Staff would continue using L’Engle Avenue and parking in the undesignated grassy area behind the Army Navy Lodge.

FIGURE 3. PALMETTO AVENUE. THE CURRENT ENTRANCE ROAD AT KINGSLEY PLANTATION.



Administration/Maintenance

The structures in the maintenance area west of the Army Navy Lodge have been recently removed and their functions relocated to the Old State Barn area (this action was previously planned and will be executed outside of the proposals of the DCP) (Figure 5). Most of the landscape at the maintenance area would be restored to natural conditions. The trash and recycling dumpsters would remain and be screened with native vegetation. No changes would be made to the layout of the Old State Barn area and all utility poles and their associated power lines and phone lines along Palmetto Avenue and L’Engle Avenue would remain. The pump house would remain in its current location near the barn servicing the Army Navy Lodge.

FIGURE 4. KINGSLEY PLANTATION’S CURRENT VISITOR PARKING LOT.



FIGURE 5. THE EXISTING OLD STATE BARN AREA EAST OF THE CULTURAL LANDSCAPE AT KINGSLEY PLANTATION.



FIGURE 2. KINGSLEY PLANTATION SITE PLAN UNDER ALTERNATIVE 1 (NO-ACTION/CURRENT MANAGEMENT)



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Visitor Facilities

The visitor contact station (Figure 6) would continue to be provided in the southeast side of the Army Navy Lodge with an accessible ramp and accessible restrooms adjacent to it. Picnic tables and benches would remain available adjacent to the garden and historic structures.

FIGURE 6. THE EXISTING VISITOR CONTACT STATION AT KINGSLEY PLANTATION.

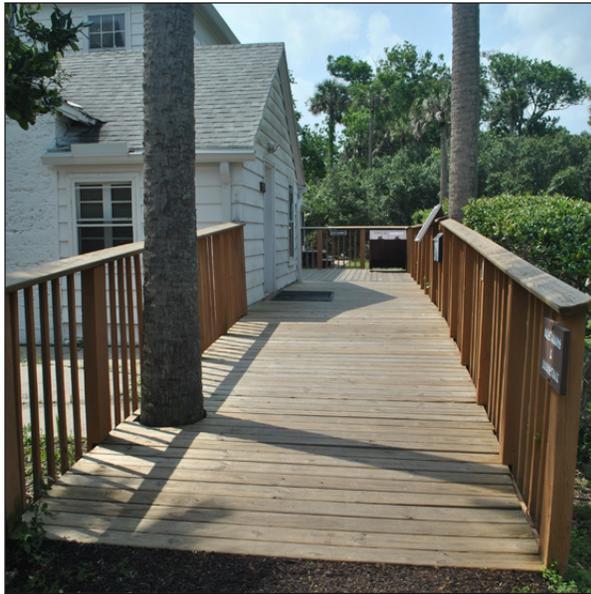


FIGURE 7. EXISTING BONDED RUBBER MULCH PATHS AT THE PLANTATION.



Visitor Circulation and Wayfinding

Though a small number of visitors would arrive via the dock (especially on weekends), most visitors would continue to begin their visit at Kingsley Plantation in the existing parking lot. Existing bound rubber mulch pathways (Figure 7) would continue to connect visitors to the barn, Anna Kingsley House, Planter's House, dock, the visitor contact station, and restrooms to the north. To the south, the bound rubber mulch pathway would continue to link visitors to the unimproved loop trail to the slave cabins (Figure 8). Visitors would also continue walking along Palmetto Avenue to reach the slave cabins. Shoreline access points along the river would remain unchanged and in place. Existing wayfinding signage would continue to be provided.

FIGURE 8. THE ARC OF TABBY-BUILT SLAVE CABINS.



Interpretation

Existing interpretive signage and the audio tour would continue to be provided. No additional interpretive exhibits, signage, or tours would be provided (Figure 9).

FIGURE 9. TYPICAL EXISTING INTERPRETIVE WAYSIDE AT KINGSLEY PLANTATION.



African Burial Ground

The African Burial Ground would remain unmarked and uninterpreted. Visitors walking to the slave cabins would continue to unknowingly pass the African Burial Ground.

Planter's House

The Planter's House (Figure 10) would continue to be closed to regular visitation but would have occasional staffed open houses on weekends. During those events, visitors would continue to be able to tour the house with park staff. There would continue to be no formal exhibits or furnishings, and open houses could be discontinued if visitation began to impact the condition of the historic structure. Maintenance of the building would continue as usual, with no modifications to the structure, which would continue to be inaccessible to visitors who are unable to climb stairs.

Cultural Resources

Noncontributing features within the cultural landscape would remain in place, including picnic tables, garden fencing (Figure 11), benches, and bound rubber mulch pathways. The historic structures and cultural landscape would continue to be maintained and preserved within existing management guidance. The African Burial Ground adjacent to the Palmetto Road entrance would continue to be unmarked and indistinguishable on the landscape. The parking lot would remain in the center of the cultural landscape.

Natural Resources

The living shoreline project would continue and visitors would be discouraged from accessing the shoreline for its protection, though physical points of access would exist (Figure 12). The park would continue to remove trees in the cultural landscape to maintain an open understory and allow the viewshed between the slave cabins and the Planter's House to be preserved. There is a likelihood that the seawall protecting the shoreline at the plantation would be extended to the southwest at a future date.

FIGURE 10. THE PLANTER'S HOUSE AT KINGSLEY PLANTATION.



FIGURE 11. EXISTING INTERPRETIVE GARDEN AT THE PLANTATION AND ASSOCIATED PICNIC TABLES.



FIGURE 12. EXISTING SHORELINE ACCESS TO THE WATERFRONT AT THE PLANTATION.



ALTERNATIVE 2

The intent of alternative 2 is to respect the significance and importance of Kingsley Plantation by removing vehicles and noncontributing infrastructure from the cultural landscape and providing visitor experiences that better align with the site's contemplative feel and harrowing history. Improvements to circulation and interpretation would also occur under alternative 2. Figure 13 displays a plan view of the plantation and its infrastructure under alternative 2.

Desired Conditions

Desired conditions are defined as statements of aspiration that describe resource conditions, visitor experiences and opportunities, and facilities and services that an agency strives to achieve and maintain in a particular area. They describe what conditions, outcomes, and opportunities are to be achieved and maintained in the future, not necessarily what exists today. Desired condition descriptions help to outline how a particular area will look, feel, sound, and function in the future. They do not answer the questions of how conditions will be maintained or achieved. The desired conditions for Kingsley Plantation are linked to the park's fundamental resources and values and based on prior planning and guidance as well as the park's purpose and enabling legislation. This alternative refines and provides additional detail to the desired conditions described in the general management plan.

Alternative 2 includes the following desired conditions:

Visitor Experience Desired Conditions

- Provide visitors to Kingsley Plantation with the opportunity to:
 - Feel a sense of leaving the modern world behind and arriving at a special and powerful place. The solemn feeling of the site dominates along with sounds of wildlife and smells of the salt marsh.
 - Gain a meaningful understanding of the site and its significance via guided and self-guided interpretive and educational programming. Stories of all who lived at Kingsley Plantation are told and the lives and experiences of the enslaved people are emphasized. Gullah-Geechee and African American history and present-day culture are embraced and interpreted.
- Once away from higher densities of visitors and visitor facilities near the parking area and visitor contact station, self-guided visitors are able to experience Kingsley Plantation as a place of reflection, healing, and resilience. Visitors on organized tours can expect that they will learn about and experience the site in the company of others.
- During special park-sponsored events where the focus is on community connection, shared learning, and celebration of culture, a high volume of visitors will be acceptable on a limited number of days per year.
- Visitors are able to easily orient themselves and navigate through the site and understand what and where opportunities are available to them.
- Visitors engage in a variety of activities at Kingsley Plantation that are appropriate given the significance of the site. These activities include:
 - walking the plantation grounds

FIGURE 13. KINGSLEY PLANTATION SITE PLAN UNDER ALTERNATIVE 2.



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- viewing the African Burial Ground, Planter’s House, Anna Kingsley house, slave cabins, and other historic features
- engaging with exhibits, interpretive signs, and/or audiovisual programming
- participating in programming and events focused on the cultural and natural history of the plantation
- picnicking at a formal picnic area

- The marsh ecosystem near the plantation thrives with biodiversity and is protected from visitor impacts that damage vegetation and contribute to shoreline erosion. In turn, a stable shoreline helps protect the cultural resources above from the impacts of climate change and storm surges.

Cultural Resources Desired Conditions

- Even though the plantation does not look as it did in Zephaniah and Anna Kingsley’s day, it reflects a continuum of human use and land-use patterns. Management of the cultural landscape focuses on the plantation era while preserving other historic resources outside this primary period of significance. Historic vistas, circulation patterns, and uses throughout the site are present and preserved.
- The slave cabins reflect the lives of the enslaved people who lived here. The tabby material, orientation, and layout of the slave cabins are preserved as one of the highest concentrations of minimally disturbed enslaved living sites in the country.
- The archeological and historic resources of Kingsley Plantation are documented, understood, and protected from natural and human-caused damage. Where appropriate, they are interpreted to visitors.

Facilities and Administration Desired Conditions

- Facilities at Kingsley Plantation are limited to meet the needs of visitors without disturbing the cultural landscape.
- The Army Navy Lodge continues to serve the public as the initial contact point for visitors arriving at Kingsley Plantation while providing space for park staff that could include offices, housing, and a conference room.
- To the extent possible while retaining the site’s historic integrity, paths, and facilities such as the visitor contact station, historic buildings, and restrooms will be adapted and maintained to provide greater accessibility to the site for all visitors.

Natural Resource Desired Conditions

- Natural resources are managed to enhance the cultural landscape. Vegetation that is a contributing feature to the cultural landscape is maintained in alignment with the plantation era.

Zoning

Under the 1996 TIMU general management plan (incorporated here by reference), the Kingsley Plantation is mostly in the “historic zone” but a small portion of the site, surrounding the Army Navy Lodge and the former location of maintenance facilities to its west, is in the “development zone.” The 1996 general management plan describes these zones as:

Historic Zone. The historic zone will be managed to preserve, protect, and interpret cultural resources and their settings as defined by historic structure reports, historic resource studies, and cultural landscape reports (NPS 1996).

Developed Zone. This zone will be managed for the provision and maintenance of park development to serve the needs of management and visitors. Thus this zone will include lands and waters where nonhistoric park development and intensive use substantially alter the natural environment (NPS 1996).

Under Alternative 2, the 1996 general management plan would be amended to re-zone the small area at Kingsley Plantation currently zoned as “developed” to “historic.” This zoning change reflects the removal of the modern maintenance facility and would result in the entire plantation being placed in the park’s historic zone.

Vehicular Circulation

The Palmetto Avenue entrance would be abandoned and the road through the site restored to historic dimensions to enhance visitor experience and improve protection of natural and cultural resources (Figure 14). With Palmetto Avenue closed to vehicular traffic, the main entrance would be rerouted approximately 550 feet east of

FIGURE 14. AN ARTIST’S RENDERING OF PALMETTO AVENUE NARROWED TO HISTORIC DIMENSIONS.



its current location on Fort George Road. In coordination with the City of Jacksonville, that 550-foot length of Fort George Road would be widened until the point where it turns north to meet L’Engle Avenue on a new road built over portions of two once-planned but never -constructed roadway alignments (Bassett and Evans Roads) (Figure 15). The park entrance gate would be located where the new road meets Fort George Road so the area can be closed after hours, with an additional entrance sign posted by the new park gate. The existing park sign would stay in its current location, with directional arrows to the new entrance installed. Vehicles entering the park would continue on L’Engle Avenue toward a new parking lot located west of the Army Navy Lodge and south of the dock. Traffic control (post-and-cable fencing) would be installed at L’Engle Avenue and Palmetto Avenue to separate vehicles from pedestrian trails. The new parking lot would be unpaved, with steel rods or other means installed to delineate parking. It would have space for forty visitor vehicles (including four accessible spaces), four oversized parking stalls for buses and RVs, ten staff parking stalls, bike racks, a turnaround loop, and a bus dropoff area.

FIGURE 15. AN ARTIST'S RENDERING OF THE NEW PARK ENTRANCE ROAD OFF FORT GEORGE ROAD.



FIGURE 16. AN ARTIST'S RENDERING OF THE VISITOR CONTACT STATION, RELOCATED TO THE WEST END OF THE ARMY NAVY LODGE, AND VIEWED FROM THE NEW PARKING LOT.



Administration/Maintenance

As in the no-action alternative, the functions of the maintenance area would be relocated to the Old State Barn area and the structures west of the Army Navy Lodge would be removed. Large trash and recycling bins would also be relocated to the Old State Barn area. The cleared maintenance area would serve as the location for the new parking lot. Bear-proof refuse receptacles would be provided in the parking lot. At the Old State Barn area, screening would be provided to block views into the maintenance yard from the new entrance road, and the utility pole at the entrance to the maintenance area would be relocated or removed. The power lines and phone lines along Palmetto Avenue and L'Engle Avenue would be removed or buried along the road corridor. The pump house would remain in its current location with additional screening provided to block views from the new entrance road. A hedge row would be established off the southwest corner of the Army Navy Lodge to screen the employee entrance area.

Visitor Facilities

The visitor contact station would be moved to the west side of the Army Navy Lodge building (to be established in the existing conference room of the structure) into a larger space that would be in a direct line of sight to the new parking area (Figure 16). Park administrative use would move to the east side of the building. A vault toilet would be added near the new parking lot, with the existing accessible restrooms in the Army Navy Lodge remaining open to visitors. The accessible deck on the north side of the lodge would be remodeled to better complement the structure and serve the existing restrooms and the relocated contact station.

A new picnic area southwest of the Army Navy Lodge, with accessible routes to it, would be provided. The viewshed between the picnic area and the Army Navy Lodge would be improved by relocating staff parking to the new parking lot. The picnic area would include a covered, accessible shelter that could accommodate up to thirty people. Existing picnic tables elsewhere on the landscape would be relocated to the new picnic area, under and adjacent to the new structure.

Visitor Circulation and Wayfinding

Visitors would exit their vehicles at the new parking lot and immediately be exposed to a view of a historic waterfront landscape and access to visitor amenities including bathrooms, drinking water, and accessible routes to the dock and visitor contact station.

The circulation around the plantation would be improved by narrowing Palmetto Avenue to its historic pedestrian scale and rerouting and defining the circular trail in front of the slave cabins. The two slave cabins on either side of Palmetto Avenue would be accessed via crushed coquina for improved accessibility. Accessible routes would also be provided to the picnic area, Planter's House, and sugar mill foundations, which would be cleared of obscuring vegetation, accented on the ground surface with crushed coquina, and interpreted in place.

Wayfinding signage would be added and improved throughout the plantation landscape. Non-historic Ligustrum hedge rows north of the Army Navy lodge would be removed in order to restore water vistas and reduce spatial confusion for visitors navigating to the contact station.

Interpretation

The audio tour would continue to be provided. Existing interpretive signs would be updated and new signs would be provided at the picnic area, the sugar mill, and along Palmetto Avenue.

African Burial Ground

The African Burial Ground would be publicly interpreted and include the installation of new interpretive signs on-site. Individual burials would be marked on the ground surface via the placement of shells mixed with naturally occurring iron concretions

(as identified as archeologically associated with the graves). A split-rail fence would delineate the African Burial Ground with an entrance off Palmetto Avenue.

Planter's House

The Planter's House would be made accessible via a crushed coquina trail accessing a platform lift to the porch on the southern side of the building adjacent to the covered walkway. Several rooms would be open to the public during normal operating hours of the plantation for a self-guided experience. Exhibits would be added to the open rooms to interpret the history and architecture of the Planter's House and the lives of the enslaved people who built it. To protect the historic structure, carpet runners would be placed in visitor accessed areas (to protect original historic flooring) and plexiglass partitions would be utilized in doorways to limit physical access to some portions of the house, while still permitting viewing.

Cultural Resources

Palmetto Avenue, which is surfaced with hard-packed earth and sand and measures between twenty and twenty-five feet in width, would return to its pre-motor vehicle width of twelve to fifteen feet. Noncontributing features in the cultural landscape such as picnic tables, garden fencing, benches, the portable indigo vat, wood bollards along Palmetto Avenue and the old parking area (Figure 17), and nonfunctional fire-suppression equipment would be removed or relocated to the peripheries of the historic landscape and to the new picnic area. Removal of the parking area would support the treatment recommendations found in the cultural landscape report (2006). The new picnic area and non-historic parking area would be installed in a less prominent location within the cultural landscape.

FIGURE 17. AN ARTIST'S RENDERING OF THE RESTORED PARKING AREA CURRENTLY SITUATED IN THE CENTER OF THE CULTURAL LANDSCAPE.



The bound rubber mulch pathways would be replaced with crushed coquina, except at building approaches where rubber mulch or similar material will be used to reduce tracking of dust into historic structures. The historic structures and cultural landscape will continue to be maintained and preserved within existing management guidance and in response to changing climate situations. Crushed coquina would be used to highlight and interpret the foundation locations of the seven non-remaining slave cabins and the sugar mill. Interpretive and contemplative features would be added to demarcate the African Burial Ground.

The park would continue to remove damaged and hazard trees in the cultural landscape and maintain an open understory to allow the viewshed between the slave cabins and the Planter's House to be preserved. Vegetation would be cleared in some areas to provide for the new entrance road and sugar mill interpretation while some vegetation would be restored along Palmetto Avenue when its dimensions are reduced. As the park responds to increasing storm events and a changing climate, there is a likelihood that the seawall protecting the shoreline at the plantation would be extended to the southwest at a future date.

Natural Resources

Living shoreline projects would continue and the protection of the shoreline would be enhanced by closing it off to visitors. Through coordination with the City of Jacksonville, the Florida Fish and Wildlife Commission, and the Florida Department of Natural Resources, the park would seek designation of a no-wake zone in the Fort George River north of the plantation.

Visitor Use Management

Alternative 2 incorporates aspects of the visitor use management framework to develop long-term tools and strategies for monitoring and managing visitor use and experience at the site (IVUMC 2016). These include the identification of indicators, thresholds, and visitor capacities, summarized below. For a full discussion see Appendix A.

Indicators and Thresholds

Monitoring to ensure that desired conditions for resources and visitor experiences are tracked, achieved, and maintained over time is essential for the success of the Kingsley Plantation Design Concept Plan. Monitoring described in this plan is accomplished via establishment of “indicators” and “thresholds.” Indicators are specific resource or experiential attributes that can be measured to track changes in conditions so that progress toward achieving and maintaining desired conditions can be assessed. Thresholds are minimally acceptable conditions associated with each indicator. Together, indicators and thresholds provide park managers with a monitoring framework to ensure that desired conditions for resources and visitor experiences are achieved and maintained over time.

Under alternative 2, the park would implement the following indicators for Kingsley Plantation:

1. number of visitors at one time at key points of interest
2. change in road width at the identified segments
3. number of oversized parking spaces occupied at one time

Current, potential, and future management strategies associated with each indicator were identified and are detailed in Appendix A. Some strategies are currently in use and may be increased in response to changing conditions. Other potential management strategies would be implemented if and when monitoring indicates that thresholds are being approached or exceeded. The impacts of these strategies and actions are analyzed in chapter 3.

The iterative practice of monitoring, implementing management strategies, and then continuing to monitor their effectiveness allows park managers to maximize benefits for visitors

while achieving and maintaining desired conditions for resources and visitor experiences in a dynamic setting. Future management strategies would be explored if current and potential management strategies did not work. Details of these management strategies would be developed at the time they are needed to ensure that the most effective approach is implemented. The impacts would be analyzed in future compliance as needed and be made available to the public. See Appendix A for detailed descriptions of the indicators and thresholds along with rationale for why the indicator was selected, monitoring protocols, and management strategies that may be used.

Visitor Capacity

Under alternative 2, the park would implement a daily visitor capacity for Kingsley Plantation of up to 600 people per day with a special event capacity of up to 1,200 people per day, eight days a year. Visitor capacity is defined as the maximum amounts and types of visitor use that an area can accommodate, while achieving and maintaining the desired resource conditions and visitor experience that are consistent with the purposes for which the area was established (IVUMC 2016). By identifying visitor capacities and managing the amounts and types of use within those capacities, the National Park Service can better protect resources and provide visitors with opportunities for high-quality experiences. Identification of visitor capacities and strategies to manage to these capacities are also directed by the National Parks and Recreation Act of 1978 and are a statutory requirement for general management planning. The impacts of implementing the visitor capacity and potential management strategies are analyzed in chapter 3. For a complete visitor capacity analysis, including a description of the analysis area, a review of existing direction and knowledge, identification of limiting attributes, visitor capacities, and associated management strategies, see Appendix A.

FIGURE 18. KINGSLEY PLANTATION SITE PLAN UNDER ALTERNATIVE 3



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ALTERNATIVE 3 (NPS PROPOSED ACTION/PREFERRED ALTERNATIVE)

The preferred alternative is defined in US Department of the Interior NEPA regulations as the alternative that the National Park Service determines “would best accomplish the purpose and need of the proposed action while fulfilling its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors” (43 CFR 46.420(d)). Identification of a preferred alternative is within the discretion of the National Park Service. The recommended preferred alternative is the action alternative because it would best address the purpose and need for action.

The intent of alternative 3 is to respect the significance and importance of Kingsley Plantation by removing noncontributing infrastructure out of the cultural landscape while still using historic Palmetto Avenue as the primary vehicular route into and out of the site. Appropriate visitor experiences that align with the contemplative and harrowing history would still be provided. Improvements to circulation and interpretation would also occur under this alternative.

Many actions proposed in alternative 2 would remain the same in alternative 3. The primary differences are associated with adjustments necessary for Palmetto Avenue to be retained as the primary vehicular route through the site. Slight differences would be seen with how visitors navigate the site in association with the traffic on the entrance road. Figure 18 displays a plan view of the plantation and its infrastructure under NPS alternative 3.

Desired Conditions

Desired conditions would be the same for alternative 3 as presented in alternative 2.

Zoning

The zoning amendment presented in alternative 2 would be the same in alternative 3.

Vehicular Circulation

The Palmetto Avenue entrance would be retained as the primary vehicular entrance road into Kingsley Plantation. L’Engle Avenue east of Palmetto Avenue would continue to be used for administrative purposes only, with no public vehicular access. The existing park entrance sign would stay in its current location. Vehicles entering the park would continue on Palmetto Avenue and turn west onto L’Engle Avenue towards a new parking lot located west of the Army Navy Lodge and south of the dock. Palmetto Avenue would be limited to twenty feet wide, with larger passing space before the entrance gate and at the intersection of Palmetto Avenue and L’Engle Avenue. Traffic control (post-and-cable fencing) would be installed along Palmetto to separate vehicles from immediately adjacent pedestrian trails and pedestrian crossings would be added (Figure 19).

FIGURE 19. AN ARTIST’S RENDERING OF THE PALMETTO AVENUE ENTRANCE ROAD UNDER ALTERNATIVE 3.



The new parking lot would be unpaved with steel rods or other means installed to delineate parking. It would have a capacity for forty visitor vehicles (including four accessible spaces), four oversized parking stalls for buses and RVs, ten staff parking stalls, bike racks, a turnaround loop, and a bus dropoff area.

Administration/Maintenance

Under the preferred alternative, changes to administration/maintenance at the plantation would be the same as the no-action alternative and alternative 2 where the functions of the maintenance area would be relocated to the Old State Barn area and the cleared maintenance area would serve as the location for the new parking lot with bear-proof refuse receptacles and a vault toilet. The power lines and phone lines along Palmetto Avenue and L'Engle Avenue would be removed or buried along the road corridor. The pump house would remain in its current location. A hedge row would be established off the southwest corner of the Army Navy Lodge to screen the employee entrance area.

However, under alternative 3, the retention of Palmetto Avenue as the primary vehicular entrance would necessitate several differences from alternative 2. The large trash and recycling bins would remain in the proposed new parking area and screened from view to the extent possible, as garbage trucks would not be able to access the Old State Barn maintenance area. At the Old State Barn area and pump house, screening would not be provided, as visitors would not be regularly accessing L'Engle Avenue.

Visitor Facilities

Under alternative 3, these changes to the visitor facilities at the site would be the same as those proposed in alternative 2: The visitor contact station would still be moved to the west side of the Army Navy Lodge building (to be established in the existing conference

room of the structure) into a larger space in a direct line of sight to the new parking area. Park administrative use would move to the east side of the building. A vault toilet would be added near the new parking lot, with the existing accessible restrooms in the Army Navy Lodge remaining open to visitors. The accessible deck on the north side of the lodge would be remodeled to better complement the structure and serve the existing restrooms and the relocated contact station.

As in alternative 2, a new picnic area southwest of the Army Navy Lodge with accessible routes to it would be provided. The viewshed between the picnic area and the Army Navy Lodge would be improved by relocating staff parking to the new parking lot. The picnic area would include a covered, accessible shelter that could accommodate up to thirty people. Existing picnic tables elsewhere on the landscape would be relocated to the new picnic area, under, and adjacent to the new structure.

Visitor Circulation and Wayfinding

Under alternative 3, these changes to visitor circulation and wayfinding would be the same as those proposed in alternative 2: Visitors would still exit their vehicles at the new parking lot and immediately be exposed to a view of a historic waterfront landscape and access to visitor amenities including bathrooms, drinking water, and accessible routes to the dock and visitor contact station.

As in alternative 2, the two slave cabins on either side of Palmetto Avenue would be accessed via crushed coquina for improved accessibility. Accessible routes would also be provided to the picnic area, Planter's House, and sugar mill foundations, which would be cleared of obscuring vegetation, accented on the ground surface with crushed coquina, and interpreted in place.

As in alternative 2, wayfinding signage would be added and improved throughout the plantation landscape. Nonhistoric Ligustrum hedge rows north of the Army Navy Lodge would be removed to restore water vistas and reduce spatial confusion for visitors navigating to the contact station. The following visitor circulation-related actions would be different in alternative 3 than those in alternative 2. The circulation around the plantation would now include an accessible pedestrian path adjacent to Palmetto Avenue with post-and-cable fencing to separate pedestrians and vehicles along the entirety of the road. The circular accessible trail in front of the slave cabins would be rerouted and further defined. A bisecting accessible trail from the looping trail would cut across the vegetation to provide a shorter loop for visitors that would connect to Palmetto Avenue at the African Burial Ground and continue across the road connecting back to the slave cabin loop trail.

Interpretation

Interpretation actions under alternative 3 are the same as those proposed in alternative 2. The audio tour would continue to be provided. Existing interpretive signs would be updated and new signs would be provided at the picnic area, the sugar mill, and along Palmetto Avenue.

African Burial Ground

The African Burial Ground would be publicly interpreted and include the installation of new interpretive signs on-site. Individual burials would be marked on the ground surface via the placement of shells mixed with naturally occurring iron concretions (as identified as archeologically associated with the graves). Like alternative 2, the burial ground would be surrounded by a split-rail fence but in alternative 3 the entrance to the African Burial Ground and interpretive waysides would be situated to its east side, associated with the new bisecting trail.

Planter's House

Under alternative three, changes to the Planter's House would be identical to that proposed in alternative two. The Planter's House would be made accessible via a crushed coquina trail to a platform lift to the porch on the southern side of the building adjacent to the covered walkway. Several rooms would be open to the public during normal operating hours of the plantation for a self-guided experience. Exhibits would be added to the open rooms to interpret the history and architecture of the Planter's House and the lives of the enslaved people who built it. To protect the historic structure, carpet runners would be placed in visitor accessed areas (to protect original historic flooring) and plexiglass partitions would be utilized in doorways to limit physical access to some portions of the house, while still permitting viewing.

Cultural Resources

Under alternative 3, changes to improve the condition of the cultural landscape at the plantation would be identical to those proposed in alternative 2, except for one difference described below. These actions would include removing noncontributing features and a parking area, replacing rubber bonded mulch with crushed coquina, continuing to maintain historic structures, highlighting missing historic structures on the landscape using crushed coquina, and adding a new parking and picnic area in a less prominent location. However, under alternative 3 Palmetto Avenue, the primary historic land-based entrance to the plantation through the slave cabin arc would be retained, and an unpaved pedestrian walkway would be delineated within the current the roadway corridor.

Natural Resources

Under alternative 3, changes at the plantation associated with the protection of natural resources would be the same as proposed in alternative 2. These actions would include the continuation of living shoreline projects, closing direct visitor access to the water at the site, continuing vegetation management, and seeking designation of a no-wake zone in the Fort George River north of the plantation. As the park responds to increasing storm events and a changing climate, there is a likelihood that the seawall protecting the shoreline at the plantation would be extended to the southwest at a future date.

Visitor Use Management

Alternative 3 would also incorporate aspects of the visitor use management framework to develop long-term tools and strategies for monitoring and managing visitor use and experience at the site (IVUMC 2016). These include the identification of indicators, thresholds, and visitor capacities, summarized below. For a full discussion see Appendix A.

Indicators and Thresholds

Under Alternative 3, the park would implement the same indicators as alternative 2:

1. number of visitors at one time at key points of interest
2. change in road width at the identified segments
3. number of oversized parking spaces occupied at one time

Visitor Capacity

Under alternative 3, the park would implement a daily visitor capacity for Kingsley Plantation of up to 600 people per day with a special event capacity of up to 1,200 people per day, eight days a year, the same as alternative 2.

MITIGATION MEASURES COMMON TO ALTERNATIVES 2 AND 3

Visitor Use and Experience

- The park would strive to complete exhibit or sign installation work on days when the site is closed to visitors, at less busy times of the day if the site is open, or in areas of the site when they are less busy.
- The park would endeavor to keep existing facilities and roads open and available to visitors or provide viable substitutes such as an outdoor visitor contact station until new features are finished and ready for use. This would help to prevent the entire site or key features of the site from ever fully closing to visitors.
- The park would proactively communicate construction schedules to visitors prior to their arrival so they could make alternate trip plans. This could be done on the park website, social media accounts, and/or through partner organizations.

Cultural Landscape

- The park would ensure that additions to the cultural landscape are compatibly designed to protect vistas across and into the cultural landscape and maintain the historic setting and feeling of the Kingsley Plantation.
- The park will complete an update to the park's long range interpretive plan to help visitors' understanding of the historic Kingsley Plantation and more modern changes.

Archeological Resources

- The park would undertake archeological survey and monitoring for actions requiring ground disturbance. Data recovery projects could occur as necessary and documentation and analysis of archeological sites would be an appropriate mitigation for damage or loss of resources.

Historic Structures

- The park would install carpet runners and plexiglass barriers to protect the historic floors and areas of the Planter's House where visitors are not allowed to enter.

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Chapter 3: Affected Environment

INTRODUCTION

As identified in chapter 1, cultural landscape, archeological resources, historic structures, and visitor use and experience are the impact topics being analyzed for the proposed alternatives. This chapter describes the affected environment (existing conditions in and around the project area) for these impact topics and Chapter 4 describes how the existing conditions would be impacted as a result of implementing the alternatives. Cumulative impacts resulting from the incremental impacts of the alternatives when added to other past, present, and reasonably foreseeable future actions are also considered in the following chapter.

AFFECTED ENVIRONMENT

Cultural Landscape

The entire project area is located in the Kingsley Plantation Historic District, a fifty-one-acre site with boundaries roughly as follows: Fort George River, west to the marsh border of the Kingsley site, south to Beatty Avenue, east to the Evans Road Right of Way, and north to the river. The historic district was listed in the National Register in 1970 and updated in 2016. The Kingsley Plantation is significant at the national level under National Register Criteria A (agriculture, recreation), B (politics/government, military), C (architecture), and D (archeology-historic, non-aboriginal, and architecture) for the period of 1791 to 1955 for its association with early settlement in northeast Florida, antebellum plantation agriculture, postbellum farming adaptations to a new economy, and the 20th century transition to recreational use that took advantage of an emerging tourism economy. The historic district comprises four contributing sites: the plantation's domestic precinct, which encompasses the extant landscape, historic structures, features, and archeological sites; the 19th century sugar mill archeological site; a slave cabin precinct that contains historic structures, ruins, and archeological sites; and the archeological site of an African Burial Ground (NPS 2020, Slaton, Sargent, and Penich 2016, NPS 2012, Snodgrass 1970). The Kingsley Plantation is one of the park's fundamental resources and values, and the site, with its 18th and 19th century buildings, is mentioned in the preserve's enabling legislation (Public Law 100-249) dated February 16, 1988, as a significant historic asset essential to achieving the purpose of the preserve and maintaining the preserve's significance.

Overlaying this historic district is the Kingsley Plantation Cultural Landscape (CRIS-CL 550110), determined eligible for the National Register in 2007 at the national level of significance. The period of significance of the cultural landscape encompasses development episodes from 1765 to 1955. The original plantation estate encompassed the whole of Fort George Island — an area of approximately 1,040 acres. Of this, the National Park Service manages approximately fifty-eight acres on the most northwestern part of the island, primarily the Kingsley Plantation Historic District noted above. Of the fifty-eight acres managed by the National Park Service, twenty acres, including the plantation and recreation-era structures and landscape features, make up the core area of the cultural landscape (NPS 2007).

Characteristics in the core area that convey a sense of the history of the events and individuals that shaped the land and contribute to its significance include structures, a circulation system, and vegetation. The Planter's House (also known as the Main House), associated dependencies such as the Anna Kingsley (also known as the Kitchen House), barn, and two wells, the remains of twenty-five slave cabins arranged in an arc that opens towards the Planter's House, and the Army Navy Lodge (Fort George Clubhouse) contribute to the significance of the historic landscape (NPS 2007). Not included in the cultural landscape inventory from 2007, the African Burial Ground also contributes to the historic district (Slaton, Sargent, and Penich 2016).

The remaining elements of the circulation system retain a high degree of historic integrity and contribute to an understanding of the historic spatial organization and use of the island. Palmetto Avenue, an unpaved, hard-packed earth-and-sand road owned by the City of Jacksonville, extends the entire length of the island's western edge and provides access to the cluster of structures in the core area.

Historically, the road bisected the arc of slave cabins, passed beside the Planter's House, and ended at the water's edge. Today the northern terminus of the roadway is at a parking lot between the slave cabins and the Planter's House. In 2016, Palmetto Avenue measured between fifteen and twenty feet (Slaton, Sargent, and Penich 2016, NPS 2007), but the road currently measures between twenty and twenty-five feet. A double row of eastern red cedars marks the route of the historic roadbed, extending from the parking lot north to the water's edge. An approximate half-mile section of the road south of the slave cabins is bordered by an allée of palms. A second allée of mature cedars leads eastward from the kitchen house (Anna Kingsley House), eventually disappearing into the surrounding successional woodland. A map prepared in 1822, during Zephaniah Kingsley's ownership of the island, suggests that there has been little alteration to the alignment of these primary roadways (NPS 2007).

The vegetation immediately surrounding the Planter's House is manicured in appearance and is dominated by regularly mown grasses and scattered mature deciduous and evergreen trees. There are few foundation plantings and very few flowering species of trees or shrubs. Vegetation is cleared from the area immediately surrounding the slave cabins, but views from the Planter's House to the slave cabins are blocked by successional woodland growth (NPS 2007). This vegetative growth in the area between the slave cabin arc and the Planter's House lawn alters the historic views and the significant spatial and social perceptions that were important to the property's development. Vegetation from the Plantation Era, the Rollins/Wilson Era, and the Club Era all exist within the historic district. (Panamerican Consultants, Inc. and Wiss, Janney, Elstner Associates, Inc. 2022; Slaton, Sargent, and Penich 2016; Davidson 2011; NPS 2011; Hartrampf Engineers, Architects, Surveyors and the Jaeger Company 2006).

Cultural Landscape Trends and Planned Actions

Generally, the condition of the overall cultural landscape is good. The Kingsley Plantation retains many key elements from its periods of significance of the Plantation Era (1765-1865), the Club Era (1923-1955), and the transition between these periods: the Rollins/Wilson Era (1865-1923). The present interpretation at the site focuses on the Plantation Era features including the Planter's House, Anna Kingsley House, slave cabin arc, and various small-scale elements. For approximately the last ten years, park managers have become aware of and located a Kingsley-era African Burial Ground near the slave cabin arc and east of Palmetto Avenue that runs through the core landscape. Club Era site features such as the Entry Gateposts and the Army Navy Lodge are an additional layer of information that communicate another period in the site's history (Panamerican Consultants, Inc. and Wiss, Janney, Elstner Associates, Inc. 2022; Slaton, Sargent, and Penich 2016; Davidson 2011; NPS 2011; Hartrampf Engineers, Architects, Surveyors and the Jaeger Company 2006).

Slaton, Sargent, and PenichThe property also includes features that post-date the period of significance associated with NPS administration and management of the plantation as an NPS unit. Some of these features – a complex of maintenance buildings west of the Army Navy Lodge - have recently been removed, improving the condition of the periphery of the landscape. Others include a pump house, a storage structure, and a bulkhead along the river to protect against erosion; interpretive features such as a demonstration garden, and wayside exhibits; visitor access features that include an entry gate, fencing, bollards, pedestrian walk system; and directional, wayfinding, and regulatory sign systems. Several modern alterations have been made to the site, including a parking lot in the core cultural landscape, above-ground utilities and phone lines, and small-scale features to accommodate

visitor needs such as picnic tables, benches, trash receptacles, and waysides. (Panamerican Consultants, Inc. and Wiss, Janney, Elstner Associates, Inc. 2022; Slaton, Sargent, and Penich 2016; Davidson 2011; NPS 2011; Hartrampf Engineers, Architects, Surveyors and the Jaeger Company 2006). Climate change has begun to impact the cultural landscape via sea-level rise and more frequent and powerful storms. Erosion along the shoreline and tree falls are anticipated to increase as a result of these storms, adversely impacting the cultural landscape. An update to the park's long range interpretive plan is anticipated soon and may help visitors' understanding of the Kingsley Plantation.

Archeological Resources

There are archeological resources associated with each of the four precincts that make up the Kingsley Plantation Historic District. The plantation's domestic precinct includes archeological evidence of former roads and buildings. The 19th century sugar mill is an archeological site. The slave cabin precinct has archeological evidence of antebellum lifeways. Finally, the African Burial Ground, located to the east of Palmetto Avenue, is an archeological site, and the large live oak tree may be historically associated with the African Burial Ground (Slaton, Sargent, and Penich 2016; Davidson 2011). Archeological investigations and testing have indicated the presence of precontact archeological resources in the Kingsley Plantation Historic District along the path and proposed entrance area of the dock and along a proposed utility line through the cultural landscape (Slaton, Sargent, and Penich 2016; NPS 2011).

Archeological Resources Trends and Planned Actions

In general terms, the current conditions of the archeological resources are good and the resources are well-protected.

Archeological resources have been regularly identified via ongoing inventory, indicating the richness of resources in the area and the likely presence of archeological sites in unsurveyed areas (NPS 2021b, 2011, Slaton, Sargent, and Penich 2016, Davidson 2011). Inventories of archeological resource will continue as project funding is available. Climate change has impacted archeological resources through sea-level rise and storm intensity and duration, causing archeological sites along the shoreline to be eroded and lost. These impacts are anticipated to continue. Other impacts of increased storms such as tree falls, may expose archeological resources found near the root ball.

Historic Structures

Contributing to the Kingsley Plantation Historic District are four contributing sites: the plantation domestic precinct, the sugar/grist mill archeological site, the slave cabin precinct, and the Kingsley era African Burial Ground. The property also has four contributing buildings: the Planter's house, built around 1797 or 1798; a frame kitchen house (Anna Kingsley House), built around 1798 and enlarged by Zephaniah Kingsley around 1814; a tabby barn built by Kingsley around 1814; and the frame construction Army Navy Lodge, built in 1926-1927 to accommodate recreational use of the property, which also entailed adaptive reuse of the earlier plantation structure. The slave cabin precinct contains the ruins of twenty-five historic structures, two of which (at the arc entrance) have been reconstructed for visitor appreciation.

There are also two contributing structures (roads) associated with the property: Palmetto Avenue, which dates to the plantation era, and L'Engle Avenue, developed during the early 20th century (around 1923) as part of the use of the Army Navy Country Club of Florida of the Planter's House and the new charter of the Fort George Club and 1926

construction of the Fort George Clubhouse (also known as the Army Navy Lodge) approximately 100 feet to the west of the Planter's House. Four contributing objects located on the property include two 19th century wellheads that relate to the plantation era, a pair of mid-20th century gateposts (counted as one contributing object) and a flagpole base that relates to 20th century club use of the property. Surviving evidence of the Fort George Club is significant at the local level for recreation, for the 1923–1955 period of club ownership (Slaton, Sargent, and Penich 2016, NPS 2007).

Historic Structure Trends and Planned Actions

The historic structures are in good condition overall. The Planter's House is open to the public on a limited basis during the weekend when staffing allows and is not accessible for individuals with limited mobility. The Anna Kingsley House is partially open to the public during park operating hours and contains several small exhibits on the first floor. Second-story rooms are unused except for a small amount of storage. The barn houses an interpretive space and there are long wooden benches for visitors. The Army Navy Lodge (the Fort George Clubhouse) is used for NPS offices, a residence, and dormitories. A small section of the building houses a public restroom and the site's small visitor center and bookstore. The park has seen little impact to these building as a result of their public use. Regular maintenance of all of the structures keep them in good condition, but climate change, particularly sea-level rise and storm intensity and duration, has and is expected to negatively impact historic structures. These storms have damaged shutters, siding, and roofing of the Planter's House. Future direct impacts of these storms could include water intrusion, water damage, mold, rot, and damage to the structures due to high-speed winds and wind-borne debris.

The other historic structures at the site include twenty-five preserved ruins of slave cabins, built ca. 1814, arraigned in a semi-circular pattern on either side of Palmetto Avenue at the plantation's southern entrance. Preservation of the slave cabins began in 2002 and continued until 2011. One cabin to the east of Palmetto has been restored and has a roof. The cabin to the west of Palmetto is partly restored; the others are represented by their tabby walls. The remains of seven cabins on the western end of the arc were removed in the late 1800s; their previous locations are now marked on the ground with crushed coquina that allows visitors to better imagine the complete arc. Ongoing monitoring, repair, and maintenance that includes repairing cracking mortar and tabby and refreshing the application of limewash to reduce erosion and biological growth and mitigate graffiti keep the cabins in good condition. They are also threatened by the impacts of climate change, but their tabby construction and further distance from the plantation shoreline provide them more protection than the other historic structures at the site.

Vegetation and Soils

Vegetation (trees in particular) are one of the primary biological components of the Timucuan Preserve as well as an important part of the historic setting in the preserve's cultural zones, including Kingsley Plantation. The project area at the plantation are within one of the largest remaining salt marsh estuaries on the Southeast Coast. The upland project area is surrounded by estuarine wetlands and waterways that provide important breeding grounds for fish, birds, and numerous other animal species. These areas serve a variety of ecological functions including groundwater discharge and recharge; flood, erosion, and storm surge control; water purification; nutrient accumulation and cycling; and wildlife refuge.

Historically, the preserve was mostly forested when the first European-American explorers arrived in the 16th century. Small areas may have been cleared and manipulated by Timucuan Indians and by European settlers. Today it is almost completely forested except for some cultural and developed zones such as the Kingsley Plantation. The species composition of the forest varies widely depending on geology, elevation, moisture, and human intervention. Most of the uplands portion of the preserve is vegetated by native tree species, with a few exceptions (NPS 2021c). Near cultural areas, a high percentage of the vegetation includes introduced species. In some areas, native species of pines have been planted into plantations (trees in straight lines). Additionally, park managers have designated historically significant trees as cultural resources, such as the avenue of cedars at Kingsley Plantation (NPS 2021c).

Shoreline areas adjacent to the plantation provide a valuable laboratory to research living shoreline establishment and oyster reef seeding. Long-term monitoring in partnership with the Southeast Coast Inventory and Monitoring Network for salt marsh elevation provides important data to support estuarine ecosystem stewardship. The Kingsley Plantation area of the park is one of several park areas that administers special use permits for unique studies on the marsh upland interface.

Large-scale sedimentary bedforms (geological features that result from riverbed material moved by flows and include ripples and dunes on the bed of a river) largely form the river bottom from the A1A Bridge to just east of the Kingsley. These bedforms are indicative of active sediment transport in the river channels that border the coastal sides of the project area (NPS 2005a).

Vegetation and Soils Trends and Planned Actions

Vegetation and soils in the project area, particularly those along the plantation's shorelines, are vulnerable to increased shipping from the port. Expansion of the port has posed threats to Kingsley Plantation, most notably an increase to shoreline erosion and introduction of nonnative species (NPS 2012).

Similarly, climate change and associated influences (such as sea-level rise, increased storm intensity, and increased average annual temperature) strain ecological functions and processes of estuarine wetlands, waterways, and the terrestrial and aquatic vegetation in these communities. Predicted changes to the preserve's forests (including Kingsley Plantation) from climate change include increased wildfire risk, increased risk of insect outbreaks, and expansion of pest ranges (Melillo, Richmond, and Yohe 2014). Additionally, decreased total streamflow and groundwater recharge combined with increased intrusion of salinity into coastal freshwater systems at the preserve and in the region, present wide-ranging stressors to preserving healthy vegetation communities. Several coordinated climate adaptation efforts at the preserve and along the greater Southeast coast are being implemented, including the NPS Climate Adaptation Strategy, US EPA Climate Ready Estuaries Program, National Fish, Wildlife, and Plants Climate Adaptation Strategy, and Fish and Wildlife Service Southeast Conservation Adaptation Strategy (Melillo, Richmond, and Yohe 2014).

Visitor Use and Experience

Introduction

Visitor use and experience refers to what visitors do while in a park and how they perceive their experiences. The existing conditions described below focus on visitor use and several aspects of visitor experience, including visitor orientation, visitor access, and visitor opportunities. The section concludes with a discussion of reasonably foreseeable environmental trends and planned actions in the project area that may affect visitor use and experience.

Visitor Experience and Opportunities

The Kingsley Plantation is the oldest surviving example of an antebellum Spanish Colonial plantation. The associated cabins are the largest concentration of existing slave quarters constructed of tabby found in the United States. The site preserves some of the best-known and studied archeological evidence of the lives of enslaved Africans in America and provides a window into their lives. The park's foundation document identifies Kingsley Plantation as a fundamental resource and value of Timucuan Ecological and Historic Preserve. As such, the park focuses on providing opportunities that allow individuals and organized groups to learn about the history of the Kingsley Plantation and the people who lived and worked there. Visitors partake in guided and self-guided exploration of the site's historic structures and the greater cultural landscape, including the "The Lion's Story Teller," an audio tour of the site. The Anna Kingsley House (kitchen house) (ca. 1814), Planter's House (ca. 1798), and the remains of twenty-five of the original thirty-two slave cabins (ca. 1814) are key points of interest for visitors. Currently, the Planter's House is closed during the week, with limited staffed open houses and tours on the weekends.

The Planter's House has no formal exhibits and no furnishings and is inaccessible to people unable to climb stairs.

Park staff have shifted away from formal interpretive programs at Kingsley Plantation in recent years, instead offering more open houses, pop-up activity stations, and roving rangers as ways to informally engage visitors and interpret the site based on their interests. A formal program may have fifteen people in attendance, with an informal program reaching about forty-five visitors.

In addition to the interpretive programming available to visitors, ranger-led educational programs are available to K-12 students. In the years prior to the COVID-19 pandemic, staff served approximately 1,750-4,000 students each year. The park is working to restore its programs to pre-COVID levels. These groups are generally comprised of no more than thirty people arriving in a single school bus; they typically come mid-morning and stay for a few hours. To meet the needs of schools, staff have been and remain open to accommodating larger group sizes and alternative timing of programs. School groups must schedule their visit with park staff in advance.

Tour buses also make stops at the site five to ten times per month. Each bus carries on average forty people. If buses come together because they are part of the same tour group, they generally stagger their arrival in fifteen-minute intervals. The tour bus companies do not convey their planned arrival times to park staff. While the tour groups do not stay long given their broader itinerary, the influx of visitors can lead to pulses of high use levels and temporary high visitation at the visitor contact station and restrooms.

Birdwatching, picnicking, and family events are other, less common recreational uses of the site. Visitors use the benches and picnic tables adjacent to the garden and historic

structures for these and other passive leisure activities. Park managers recently closed the plantation's shoreline to visitors, including anglers, in response to visitor-caused resource damage, though physical access points remain.

Lastly, special events are occasionally hosted at Kingsley Plantation, including the Kingsley Heritage Celebration, where music, art, stories, archeological discoveries, crafts, and food from the plantation era are shared with the broader public. In 2016, 1,800 people attended the event, which is held over multiple days.

The quality of visitor experience is high: Between fiscal years 2012 and 2019, an average 97% of visitors to Timucuan Ecological and Historic Preserve, including Kingsley Plantation, reported being satisfied overall with appropriate facilities, services, and recreational opportunities (NPS 2012-2019).

Visitation

The Kingsley Plantation is free of charge and open to the public five days a week, Wednesday through Sunday, 9 am to 5 pm. Before the COVID-19 pandemic, the site was open seven days a week. This shift in operations has allowed park staff to conduct important community outreach, virtual programs, and site maintenance on Monday and Tuesday, when the site is otherwise closed to visitors.

The site is busiest on late mornings onward, with weekends, holidays, and nice weather days attracting the most visitors. During a weekday with nice weather, park staff estimate hosting 90 visitors; on a weekend day with nice weather and a variety of interpretive activities they host approximately 200-300 visitors.

About 45% of the park's visitors are over the age of sixty, according to recent visitor surveys, and staff estimate visitors stay at Kingsley Plantation an average of two hours

(NPS 2012-2019). Prior to the COVID-19 pandemic, visitation to the plantation was relatively stable, as Figure 20 indicates. 2022 numbers are lower due in large part to the fact that the plantation is now closed two days a week. The park arrives at its visitation numbers by using a vehicle counter and a multiplying the number of vehicles by 3.2 persons. The multiplier was developed based on consultation with park service visitor statistics program staff and observations of group sizes.

Visitor Access

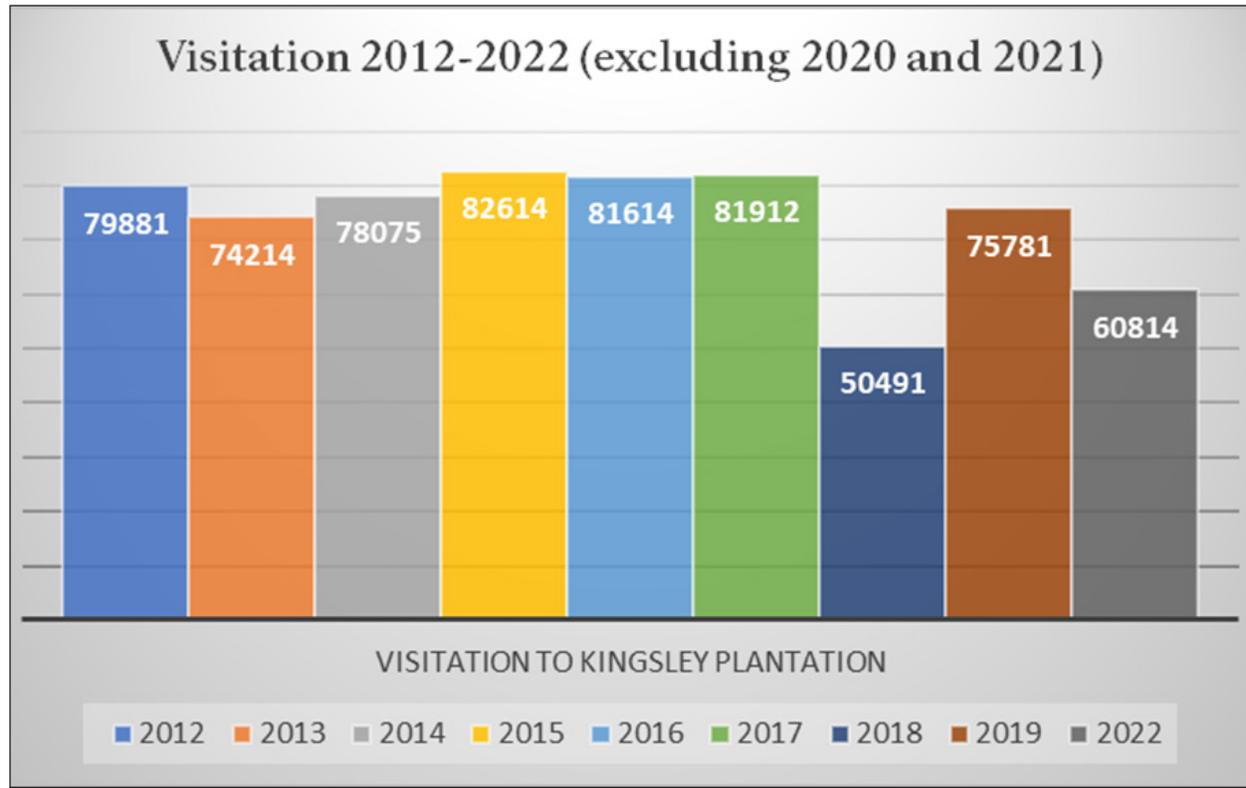
The Kingsley Plantation is located off Fort George Road, a narrow dirt road on the sparsely populated Fort George Island about forty-five minutes from Jacksonville, Florida. Most visitors arrive at the site by car, turning from Fort George Road onto Palmetto Avenue, a historic plantation road that takes visitors through the arc of slave cabins and towards the Planter's House and other historic buildings. A small number of visitors access the site by boat using a dock maintained by the National Park Service in the northwest portion of the property, on the Fort George River. Some visitors bicycle or walk in from the adjacent state park.

The successful operation of the Ribault Club, a site located on the east side of the island and jointly operated by the National Park Service and Florida State Parks, has led to increases in traffic on the island and challenges with vehicular circulation that persist today.

Visitor Circulation, Wayfinding, and Orientation

Most visitors enter the property from the south along Palmetto Avenue. They drive through the center of the slave cabin area, a semicircular arrangement of tabby structures, on the same road that served as the historic route into the plantation.

FIGURE 20. VISITATION TO KINGSLEY PLANTATION



There is a small pull-off area where visitors can stop their vehicles and examine and learn about the adjacent cabin structures. North of the slave cabin area, the road continues through a wooded area before entering a gravel parking area, situated in the middle of the cultural landscape, that can accommodate about twenty vehicles. The lot’s configuration is ill-defined and can lead to inefficient parking arrangements (such as buses taking up several single vehicle spots at one time). It often overflows, both because of its design and because visitation levels often exceed the parking lot capacity, so visitors also park along the shoulder of L’Engle Avenue and in other undesignated areas. This can result in a congested roadway and damage to natural and cultural resources. To keep the main parking area available for visitors, staff currently park on the grass near the Army Navy Lodge.

A trailhead is located at the northwestern edge of the parking area; it provides bound rubber mulch pathways that connect visitors to the barn, kitchen house (Anna Kingsley House), Planter’s House, and the dock to the north. Paths also lead to restroom facilities located to the west of the Planter’s House in the Army Navy Lodge. The park’s small visitor contact station and bookstore are located here as well. To the south, the bound rubber mulch pathway links visitors to the unimproved loop trail to the slave cabins. The uneven terrain, informal trails, and rubberized mulch can cause navigational and accessibility challenges for some visitors, especially those with limited mobility. Visitors also walk from the parking area along Palmetto Avenue to reach the slave cabins, putting them on a route also used by moving vehicles. The passing vehicles create dust, noise, and safety concerns that can negatively impact visitors on foot.

Some of the site’s existing signage, kiosks, and wayside exhibits are dated, worn, and inconsistent. This can make it challenging for visitors to orient themselves to the site or easily navigate to destinations throughout the plantation. The visitor contact station provides personnel and informational resources to help visitors understand and engage with the site, but once at the parking area, visitors do not have clear direction on how to reach it.

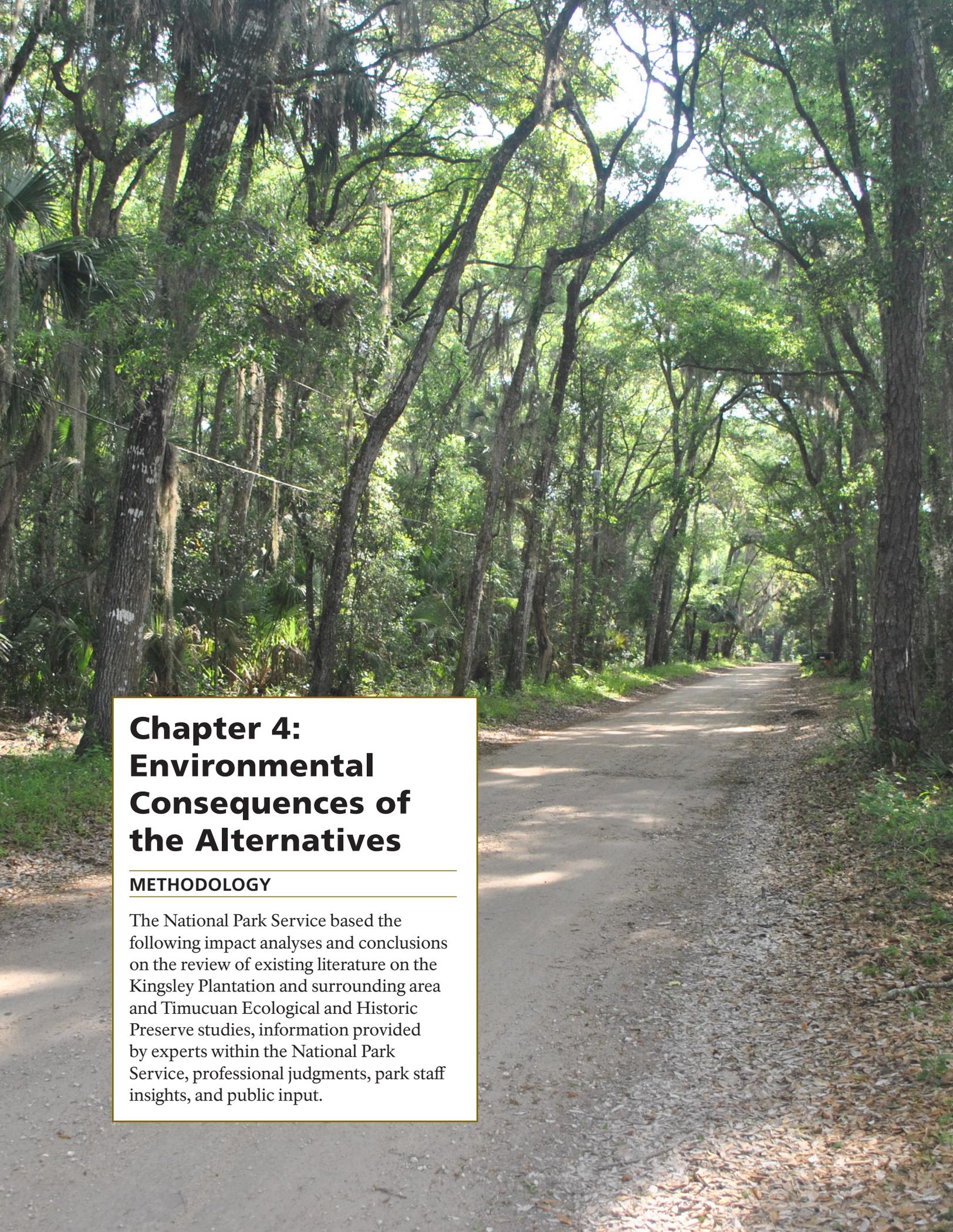
Visitor Use and Experience Trends and Planned Actions

Broad factors not specific to the park may increase or decrease future visitation levels, including population changes, economic trends, travel costs, leisure time availability, future disposable income, climate change, and changes in activity preferences. A brief on park visitation and climate change stated: “The research presented here does not support a strong historical relationship between temperature and visitation at Timucuan Ecological and Historic Preserve. This does not necessarily mean that park visitors are not responding to climate. Visitors may be responding to other aspects of climate in addition to temperature, such as precipitation, or to shorter-term weather patterns, such as storms and heat waves.

Non-climate factors may also be significant drivers of visitation. It is important to note that visitor response to climate may shift or strengthen with ongoing climate change” (NPS 2015a). The effects of climate change such as sea-level rise and storm surges may also alter visitation and the opportunities available to visitors by threatening the integrity of and access to key attractants of the site (Peek et. al 2022).

The City of Jacksonville, the metropolitan area nearest to Kingsley Plantation, has undergone one of the highest overall population increases in the country (US Census Bureau 2019). Between 2010 and 2020, Jacksonville’s population increased by nearly 16%, from approximately 822,000 to 950,000 (US Census Bureau 2022). This, coupled with the fact that the park is actively outreaching to nearby communities and designing programs that are relevant and interesting to a wider array of people, may lead to increased visitation by local residents.

Reasonably foreseeable future actions in the project area that may impact visitor use and experience include an updated long-range interpretive plan to guide the expansion and refinement of interpretive operations at the park, including Kingsley Plantation. This action would contribute beneficial impacts to the overall conditions in visitor use and experience by enhancing and expanding opportunities for visitors to learn about and connect with the site, a fundamental park resource.



Chapter 4: Environmental Consequences of the Alternatives

METHODOLOGY

The National Park Service based the following impact analyses and conclusions on the review of existing literature on the Kingsley Plantation and surrounding area and Timucuan Ecological and Historic Preserve studies, information provided by experts within the National Park Service, professional judgments, park staff insights, and public input.

CUMULATIVE EFFECTS SCENARIO

CEQ regulations that implement the National Environmental Policy Act require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such other actions. Cumulative impacts can result from individually minor but collectively important actions taking place over a period of time.

Cumulative impacts were considered for both the no-action and action alternatives. They were determined by analyzing the effect on the environment from implementation of the alternative when added to the effects of other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

With regard to NPS projects and actions, due to climate change and the increasing frequency and intensity of storms the park is seeking funding to extend the seawall that protects the Kingsley landscape from erosion into the Fort George River. Extending the seawall to the east and west (mostly outside of the cultural landscape) would extend more physical protection from erosion. Should the resources needed for the seawall extension become available, the park would act on the opportunity and initiate an analysis separate from this planning effort. There are no other current or reasonably foreseeable NPS projects beyond the proposals presented in this plan that are expected to affect the same resources as those in the project area. With regard to external actions, there is an anticipated dredging project that could be undertaken by the US Army Corps of

Engineers (USACE) on the St. Johns River. The project is intended to accommodate increasing shipping pressures on the Port of Jacksonville and would result in the opening of deeper water access in the river that would allow larger vessels to reach the Kingsley Plantation public dock. The upstream dredging would also be anticipated to change flow patterns in the river, causing the erosion and elimination of the existing sandbar north of the park that attracts recreational boaters. Furthermore, the rapid growth of the Jacksonville area population is anticipated to bring increased visitation pressures on the Kingsley Plantation and an expansion of shoreline development near the park.

CULTURAL LANDSCAPE

Alternative 1 (No Action/ Current Management)

Under the no-action alternative, current management would continue, guided by the cultural landscape report's (2006) primary treatment of rehabilitation which focuses on the Plantation Era of the Kingsley Plantation. Beneficial impacts of current management include limited additional interpretive and wayfinding signage within the cultural landscape. Actions that maintain the viewshed such as removing trees within the cultural landscape, screening the maintenance area, and restoring the landscape to natural conditions would continue. Crushed coquina would also continue to be used to mark the foundations of slave cabins that are no longer standing. Negative impacts from the current management, however, include the continuation of vehicles circulating through the slave cabin arc, retention of the primary parking lot in the center of the landscape, and retaining noncontributing features such as picnic tables, fencing, benches, and bonded rubber mulch pathways within the cultural landscape.

The 2006 cultural landscape report recommended the treatment of rehabilitation for views within the site between the slave cabins and the area surrounding the Planter's House and for vehicular and pedestrian circulation. The report also recommended the removal of parking from the core area of the cultural landscape. The impact of the continuation of current management includes adverse effects to the setting and feeling of the core cultural landscape during the period of significance.

Cumulative Impacts—The population growth that occurred in Jacksonville between 2010 and 2020 is reasonably expected to continue. Coupled with the park's outreach to nearby communities and expanding interpretation, there may be increased visitation to the Kingsley Plantation. Under the no-action alternative, the cumulative potential for increased visitation suggests an increase in personal vehicles and buses circulating within the core cultural landscape. The increase in vehicles in this area would be an adverse impact to the cultural landscape and viewshed due to their visual intrusion and sound pollution. The future anticipated dredging of the St. Johns River by the USACE would improve the cultural landscape via elimination of a sandbar used by boaters for recreational purposes that are not in keeping with the desired visitor experience at the Kingsley Plantation area. The USACE action is independent of actions described in this plan. Lastly, the potential extension of the seawall at the plantation would provide additional protection and stability to the cultural landscape in the face of climate change. These potential future factors and actions would have beneficial and adverse effects to the setting and feeling of the core cultural landscape.

Alternative 2

Under alternative 2, the road alignment and removal of vehicles from the cultural landscape would be a beneficial impact by improving viewshed, setting/feeling, and protection of the cultural landscape and contributing resources. Related to this action, narrowing Palmetto Avenue to its historic pedestrian scale would also improve the cultural landscape. Vegetation screening at the old State Barn area and pump house, the removal of non-historic ligustrum hedge rows and a utility pole, the burying of utility lines, and the remodeling of the accessible deck on the north side of the Army Navy Lodge to be more compatible with the historic structure would improve the views within the cultural landscape. Additionally, marking the individual burials would improve the visibility of the African Burial Ground, and thus restore an element of the core cultural landscape that had been missing. Establishing a new picnic area southwest of the Army Navy Lodge and consolidating picnic facilities there would overall improve the cultural landscape and views because it would remove non-historic features from the core cultural landscape and improve the setting and feeling of the area. Finally, removing noncontributing features, replacing rubber bonded mulch, marking missing historic features with crushed coquina, and maintaining the cultural landscape and historic structures would improve the views, setting/feeling, and protection of the cultural landscape.

Adverse impacts under alternative 2 include the addition of a new parking lot, vault toilet, and split-rail fence to delineate the African Burial Ground and new interpretive and wayfinding signage that would introduce non-historic features into the cultural landscape. To mitigate these impacts, new additions would be compatibly designed with the cultural landscape and historic district, and in the case of the parking lot

and associated vault toilet would be on the far eastern periphery of the landscape. Establishing a crushed coquina path to the sugar mill would introduce new features into the historic landscape. However, coquina is compatible with the cultural landscape and has been recommended for use to differentiate it as a replacement, and not original, material (Panamerican Consultants, Inc. and Wiss, Janney, Elstner Associates, Inc. 2022).

Cumulative Impacts—The anticipated impacts of population growth in Jacksonville and increased visitation at the Kingsley Plantation would bring more vehicles to the site, but they would have less impact on the cultural landscape, as vehicles would be removed from the core landscape area. The future anticipated dredging of the St. Johns River by the USACE would improve the cultural landscape via elimination of a sandbar used by boaters for recreational purposes not in keeping with the desired visitor experience at the Kingsley Plantation area. The potential extension of the seawall at the plantation would provide additional protection and stability to the cultural landscape in the face of climate change, enhancing the positive benefits to the landscape introduced in alternative 2. These potential future factors and actions would have beneficial and adverse effects to the setting and feeling of the core cultural landscape cultural landscape.

Alternative 3 (NPS Preferred Alternative)

Under alternative 3, the Palmetto Avenue entrance and vehicular circulation through the slave cabin arc would remain, thereby retaining the historic land-based approach through the arc and toward the Planter’s House. Palmetto Avenue, which is surfaced with hard-packed earth and sand and measures twenty to twenty-five feet in width, would be rehabilitated to twenty

feet wide and monitored to ensure that it does not expand, an improvement to the condition of the landscape versus current conditions but not a reduction to historic dimensions. The addition of an unpaved grassy pedestrian walkway would be five feet wide and separated from Palmetto Avenue by post-and-cable fencing; it would represent a modern but minor visual intrusion to the cultural landscape. The removal or burying of utility lines and the installation of a new row of non-historic ligustrum to screen the employee area of the Army Navy Lodge would improve the cultural landscape by removing and minimizing modern visual intrusions.

Actions having a beneficial impact that are the same as alternative 2 include the removal of non-historic ligustrum hedge rows, establishing a new picnic area southwest of the Army Navy Lodge, and consolidating picnic facilities there, removing noncontributing features, relocating the existing parking lot in the middle of the cultural landscape to a location west of the Army Navy Lodge, replacing rubber bonded mulch and marking missing historic features with crushed coquina, remodeling of the accessible deck on the north side of the Army Navy Lodge to be more compatible with the historic structure, and maintaining the cultural landscape and historic structures. These actions would all improve the views, setting/feeling, and protection of the cultural landscape.

Negative impacts under alternative 3 include vehicles continuing to pass through the cultural landscape and installing non-historic features such as a post-and-cable fence to separate vehicles along Palmetto Avenue from pedestrian traffic along a new unpaved trail. The installation of new trails and rerouting trails would introduce non-historic elements into the viewshed.

Finally, actions having a negative impact that are the same as alternative 2 include installing a new parking lot, a vault toilet, a split-rail fence to delineate the African Burial Ground, and new interpretive and wayfinding signage that would introduce non-historic features into the cultural landscape. To mitigate these impacts and minimize their effect, new additions would be compatibly designed with the cultural landscape and historic district. The addition of crushed coquina thresholds for access to two slave cabins and a crushed coquina path for the sugar mill would also introduce new features into the historic landscape; however, these impacts are minor, as these features are compatible with the cultural landscape.

Cumulative Impacts—Population growth in Jacksonville and increased visitation by local residents would result in cumulative adverse impacts to the cultural landscape in this alternative, as vehicular circulation would potentially increase within the core area, particularly along Palmetto Avenue as it passes through the slave cabin arc. While this area may undergo more vehicular traffic, as anticipated in the no-action alternative, vehicles would be redirected to the new parking area near the Army Navy Lodge similarly to alternative 2. Thus, an increase in visitation and vehicles in the core cultural landscape would be transitory as vehicles pass through the slave cabin arc and ultimately are parked outside of the core cultural landscape. The future anticipated dredging of the St. Johns River by the USACE would improve the cultural landscape via elimination of a sandbar used by boaters for recreational purposes not in keeping with the desired experience at the Kingsley Plantation area. The potential extension of the seawall at the plantation would provide additional protection and stability to the cultural landscape in the face of climate change, adding to the positive benefits to the landscape introduced in alternative 3.

Conclusion

Alternative 2 would possibly provide greater protection to the core cultural landscape by removing the entry road through the slave cabin arc and restoring Palmetto Avenue to historic dimensions. Removing that same road, however, would change the historic approach to the Planter’s House and the feeling and understanding of the cultural landscape. Alternative 3 retains the road within the core cultural landscape and the historic approach, which is beneficial to the overall feeling and understanding of the cultural landscape but continues to allow the vehicular traffic that negatively impacts the setting.

ARCHEOLOGICAL RESOURCES

Alternative 1 (No Action/ Current Management)

Under the no-action alternative, beneficial impacts include little to no new ground disturbance activities beyond current management for the installation of new waysides, the removal of structures in the maintenance area, and the removal of trees within the cultural landscape. Archeological resources are present throughout the Kingsley Plantation, and they are in good condition and well-protected. Ground disturbance activities under current management would avoid archeological resources. Negative impacts include continued vehicle circulation adjacent to the African Burial Ground, which causes ground vibration that can disturb the burials, archeological resources, and their spatial context.

Cumulative Impacts —Current management has a cumulative beneficial impact on archeological resources. The future potential construction of an extension of the seawall at the plantation would likely disturb currently undocumented archeological resources. However, the seawall project may result in new documentation of archeological

resources and ultimately protect more archeological resources by stabilizing the bank against erosion.

Alternative 2

Under alternative 2, archeological resources are expected to be adversely impacted by ground disturbance activities related to the new road alignment. The ground disturbance would occur in an undisturbed, historically rich area with known and suspected archeological resources. Ground disturbance directly damages and destroys archeological resources and their context, which is critical to understanding their importance and their potential to yield future information.

In order to prepare for the road alignment, about 22,000 square feet of ground surface (920 feet long by 24 feet wide) would need to be cleared and disturbed for roadbed preparation. The clearing would include ground disturbance associated with vegetation removal to prepare the area for additional ground disturbance work such as scraping and grading necessary for creating an even driving surface. Although the proposed road would not be paved, these actions would still be necessary for a non-paved road. Additionally, approximately 15,000 square feet of vegetation removal and scraping, grading, etc. would be needed to expand L'Engle Avenue. The proposed new road alignments in alternative 2 have not been surveyed for archeological resources, but colonial sites directly associated with the Kingsley period of significance are known to be present in the area in near-surface context. Per mitigations, road work would be preceded by survey and archeological data recovery projects that would minimize the overall impact to currently unknown archeological resources, as data recovery would provide for their understanding and interpretation to the public. However, portions of any sites present would ultimately be lost as a new road was placed.

This alternative also includes other, minor ground-disturbing activities that could still damage archeological resources. The installation of split-rail fencing would also be an adverse impact to the archeological resources. The removal of the utility pole, the removal/burial of utility lines, and the installation of the vault toilet may also negatively impact archeological resources via ground disturbance. The construction of a new parking area near the Army Navy Lodge may impact archeological resources, but its proposed location within the footprint of the previously disturbed maintenance area makes it less likely. Finally, marking the individual graves in the African Burial Ground may make the site more susceptible to vandalism or looting.

Cumulative Impacts —The ground disturbance activities associated with the new road alignment would damage and destroy archeological resources and their context, which are currently protected in situ, but mitigations employed before road construction would likely increase understanding and public interpretation options of the resources present. The future potential construction of an extension of the seawall at the plantation would likely disturb currently undocumented archeological resources. However, the seawall project may result in new documentation of archeological resources and ultimately protect more archeological resources by stabilizing the bank against erosion.

Alternative 3 (NPS Preferred Alternative)

Under alternative 3, adverse impacts to archeological resources could be realized during ground disturbance associated with expanding L'Engle Avenue by about 7,000 square feet (expanding the roadway by 10 feet in width). Further ground disturbing activities associated with burying utility lines; installing new waysides, trails, and fencing; and removing or adding vegetation could have adverse long-term effects on archeological resources because ground disturbance could directly damage or destroy them. The construction of a new parking area near the Army Navy Lodge may impact archeological resources, but its proposed location within the footprint of the previously disturbed maintenance area makes it less likely. The adverse impacts associated with marking individual graves in the African Burial Ground are the same as alternative 2.

Cumulative Impacts—Future potential construction of an extension of the seawall at the plantation would likely disturb currently undocumented archeological resources but ultimately protect more resources by stabilizing the bank against erosion.

Conclusion

While the many actions described in alternatives 2 and 3 are nearly the same, alternative 3 does not include changing the entrance or entrance road alignment. Because of this, alternative 3 would have much less of an adverse impact on archeological resources than alternative 2. Under alternative 3, archeological resources would remain undisturbed and in situ, both of which are beneficial for the resources themselves and for the understanding of these resources.

HISTORIC STRUCTURES

Alternative 1 (No Action/ Current Management)

Under the no-action alternative, current management would continue to protect the historic structures. There would be no change in beneficial or negative impacts to the historic structures.

Cumulative Impacts—Climate change, particularly sea-level rise and storm intensity and duration, is expected to adversely impact historic structures. Actions that may be taken in the future would be reactive to address damage or deteriorating conditions.

Alternative 2

Under alternative 2, historic structures would be maintained per existing management guidance, providing a beneficial impact to the structures. The addition of an Architectural Barriers Act Accessibility Standard-compliant accessible chair lift for the Planter's House would have a negative impact on the historic structure by adding non-historic features and altering elements of a historic structure. By being closed to visitors, the interior ambient environment of the house is relatively stable. Under this alternative, opening the house to visitors may increase the opportunity for the introduction of humidity, mold, rot, animal and water infiltration, and detritus in the house. Additionally, opening the house for unsupervised visitor access may have a negative impact on the historic structure due to stress and wear and tear on the original floors, historic fabrics and finishes, and vandalism. However, these types of impacts would be gradual and could be minimized with monitoring.

Cumulative Impacts — It is reasonably foreseeable that visitation to the plantation will rise as population rises in the Jacksonville area. Under alternative 2, negative impacts associated with increasing visitation to the inside of the Planter’s House would intensify as more people visit the plantation as a whole. The public has expressed interest in access to the interior of the Planter’s House, so it is reasonable to assume that most visitors would exercise that opportunity should it be made available. The increase in visitation would compound the adverse impacts caused by allowing visitation within the house, though they would still occur gradually and could be mitigated with careful monitoring.

Alternative 3 (NPS Preferred Alternative)

Beneficial and negative impacts to historic structures under alternative 3 are the same as they are under alternative 2.

Cumulative Impacts—Cumulative impacts to historic structures would be the same as they are under alternative 2.

Conclusion

The no-action alternative retains current management of the historic structures, including the continued closure of the Planter’s House to the public during the week. Alternatives 2 and 3 both include opening the Planter’s House to visitation during the week and installing a chair lift. Alternatives 2 and 3, therefore, introduce potential adverse impacts to the historic fabric of the house by opening the house to visitation and installing a chair lift.

VEGETATION AND SOILS

Alternative 1 (No Action/ Current Management)

The no-action alternative is a continuation of current management that has little adverse impact to soils and vegetation, as the NPS has made previous improvements to visitor facilities at Kingsley Plantation to minimize impacts to these resources. Under the no-action alternative, the primary vehicular circulation through Kingsley Plantation would continue to use Palmetto Avenue and park staff would continue using L’Engle Avenue and parking in the undesignated grassy area behind the Army Navy Lodge. These actions would continue to compact soils in this area but would not have an appreciable impact to vegetation communities or function because this area has been used previously for administrative functions and is limited to a few parking spaces. Thus, there would be no to little new ground disturbance activities under the no-action alternative and negligible impacts to soils and vegetation.

In addition, current visitor use activities and circulation patterns would continue at the visitor contact station and at picnic tables and benches adjacent to the garden and historic structures, which would have no added impacts to soils and vegetation. Existing bound rubber mulch pathways would connect visitors to the barn, kitchen house (Anna Kingsley House), Planter’s House, dock, the visitor contact station, and restrooms to the north, which would continue to mitigate impacts to soil compaction. Similarly, the bound rubber mulch pathway would continue to link visitors to the unimproved loop trail to the slave cabins south of the visitor contact station.

Under the no-action alternative, beneficial impacts from current management activities include removal of unneeded structures and restoration of the landscape to natural conditions in the maintenance area west of the Army Navy Lodge. The living shoreline project would also continue to be implemented and managed. Shoreline protection would be enhanced by closing it off to visitors, providing a long-term beneficial impact to soils and vegetation in these sensitive coastline areas.

Visitors would be discouraged from accessing the shoreline to help protect coastal vegetation; however, physical points of access would exist and some social trailing could occur, which would negatively impact fragile vegetation near the plantation's coastal edges. These impacts would likely occur only occasionally and would be tempered by signage discouraging visitors from accessing steep banks adjacent to the coastal channels near the project area. Shoreline access points along the river would remain unchanged and in place, as would the existing seawall that helps protect the landscape from erosion.

Cumulative Impacts — External shoreline development near the project area is likely to increase, as well as expansion and proliferation of private docks, which will likely increase the number of private boats, wake and wave impacts, and an associated increase in erosion and impacts to shoreline vegetation. Most notably, high-speed boating in the rivers and creeks of the preserve contributes to wake-induced shoreline erosion and turbidity in the water column.

Similarly, increased shipping from the port and expansion of the port has posed threats to Kingsley Plantation, most notably an increase to shoreline erosion and introduction of nonnative species. Climate change and the associated influences (sea-level rise, increased storm intensity, and increased average annual

temperature) are likely to continue to stress the capacity of estuarine wetland vegetation along coastal margins against these stressors. Under the no-action alternative these negative impacts would continue to occur and park managers would continue to react to them to the extent possible.

Alternative 2

Under alternative 2, the total amount of forested vegetation that would be removed to accommodate a new roadway, parking lot, sugar mill, and other locations would be approximately 1.6 acres, which is approximately 2.6% of the entire Kingsley Plantation project area. The majority of vegetation loss included in that figure would involve developing a new road segment measuring about 924 feet long and 24 feet wide that would reroute the plantation's main entrance. The new road segment would remove 0.5 acres of forest to reach L'Engle Avenue. The proposed L'Engle Avenue right-of-way would be widened from ten feet to twenty feet and would permanently remove about 0.34 acres of forested vegetation. The total loss of vegetation for the new roadway segment and widened L'Engle Avenue would be less than 1% of the project area's total forest cover. This overall loss of vegetation would be relatively small compared to the sixty-acre project site and represents a negligible loss of vegetation when compared to Fort George Island and the preserve as a whole. No unique or sensitive vegetative communities, soils, or wildlife habitat would be impacted by the proposed road segment. Mitigation measures would be used during construction to minimize erosion, soil loss, and soil compaction outside the development footprint.

The new parking lot, with its capacity for forty visitor vehicles, four oversized parking stalls for buses and RVs, ten staff parking stalls, a turnaround loop, and a bus drop-off area, would encompass a footprint of about 0.62 acres.

The area proposed for the parking lot had been historically used as a barn area and more recently as a maintenance area and is sparsely vegetated. Moving staff parking from the previous undesignated grassy area behind the Army Navy Lodge to the new parking area would allow the grassy area to restore to more natural conditions and provide a more sustainable area for staff to use.

Burying about 1,000 feet of power lines and phone lines along Palmetto Avenue and L'Engle Avenue would involve trenching methods that would temporarily impact soils and vegetation. These trenched areas would be developed alongside and within the proposed access road right-of-way and would restore to more natural conditions within a few months.

The addition of a crushed coquina threshold for access to two of the slave cabins and a crushed coquina path for the sugar mill would have beneficial impacts to mitigate soil compaction and long-term trampling impacts by keeping visitors on a hardened surface.

Through coordination with the City of Jacksonville's Waterways Commission, the Florida Fish and Wildlife Commission, and the Florida Department of Natural Resources, the park would seek designation of a no-wake zone in the Fort George River north of the plantation. These efforts could provide benefits to vegetation and soils along shorelines as plants would be better able to root and stabilize these areas more effectively without the added stress of boat wake and erosion.

The park would continue to remove damaged and hazard trees in the cultural landscape and maintain an open understory to allow the viewshed between the slave cabins and the Planter's House to be preserved. These actions would have beneficial impact to vegetation where damaged or hazard trees that are removed would also remove potential disease and pest vectors from the area.

Cumulative Impacts—Cumulative impacts would be similar to those described under the no-action alternative. However, under alternative 2 negative impacts to shoreline vegetation and soils associated with high-speed boat wakes and climate change and would be lessened if a no-wake zone is enacted in the Fort George River.

Alternative 3 (NPS Preferred Alternative)

Impacts to soils and vegetation would be similar to alternative 2 but the preferred alternative would involve clearing slightly less vegetation for the new road segments to provide visitor access. Under alternative 3, the total amount of forested vegetation along new roadway, parking lot, sugar mill, and other locations would be about 0.75 acres, which is about 1.25% of the entire Kingsley Plantation project area. The new parking lot and vault toilet footprint would be the same as alternative 2 and these facilities would have the same impacts to soils and vegetation in the preferred alternative. About 1,500 feet of power lines and phone lines in the preferred alternative would be trenched along Palmetto Avenue and L'Engle Avenue, an increase of 500 feet compared to alternative 2. Trenching methods would temporarily impact soils and vegetation; however, trenched areas would be developed alongside and within the proposed access road right-of-way and would restore to more natural conditions within a few months.

Vehicles entering the park would continue on Palmetto Avenue and turn west onto L'Engle Avenue towards a new parking lot located west of the Army Navy Lodge and south of the dock. Palmetto Avenue would be limited to twenty feet wide, with larger passing space before the entrance gate and at the intersection of Palmetto Avenue and L'Engle Avenue. Traffic control (post-and-rail fencing) would be installed along Palmetto to separate vehicles from immediately adjacent pedestrian trails and pedestrian crossings would be added.

The new parking lot would be unpaved with wheel stops or other means installed to delineate parking. It would have a capacity for forty visitor vehicles (including four accessible spaces), four oversized parking stalls for buses and RVs, ten staff parking stalls, bike racks, a turnaround loop, and a bus drop-off area.

Cumulative Impacts—Cumulative impacts to vegetation and soils would be the same as Alternative 2.

Conclusion

The no-action alternative retains current management scenarios in the park, which have little potential to negatively impact soils or vegetation of the plantation. Alternatives 2 and 3 both include development of new facilities, roads, trails and parking areas that would introduce minor adverse impacts to soils and vegetation that are relatively insignificant to the park as a whole. However, alternative 2's adoption of a new entrance road would introduce more negative impacts to soils and vegetation (physical loss of current vegetated areas and impaction and removal of natural soils) than the no-action or preferred alternative.

VISITOR USE AND EXPERIENCE

Alternative 1 (No Action/ Current Management)

Alternative 1 would continue current management as described above in the affected environment section. The park would not improve or add interpretive resources and opportunities for visitors. Access to and circulation of the site would remain the same, with most visitors entering via Palmetto Avenue by car and using the existing twenty-vehicle parking area located in the cultural landscape. Visitors and vehicles would both use Palmetto Avenue to travel between destination points, which would continue to

have the potential to create use conflicts and degrade the contemplative setting. Wayfinding signage and pathways would continue to create navigational challenges for some visitors. Park infrastructure such as the picnic shelters and visitor contact station would be in the same locations and conditions. Desired conditions, indicators, thresholds, and visitor capacities for the site would not be implemented. Overall, the current impacts on visitor use and experience would continue to occur.

Cumulative Impacts—There would be no new impacts to visitor use and experience under alternative 1. Issues and experiences associated with visitation pressures on the site would continue as populations in the Jacksonville area increase and more people visit the park.

Alternative 2

The desired conditions, indicators and thresholds, and visitor capacities established in alternative 2 would provide a new framework for evaluating and managing visitor use while protecting important resources and experiences. The suite of potential management strategies included as part of the indicators, thresholds, and visitor capacities would generally have beneficial impacts to visitor use and experience. Educational strategies that would encourage voluntary spatial and temporal redistribution of visitors would help visitors better attain the setting and experiences they desire without the addition of regulations. For example, knowing when the peak visitation times typically occur would allow a visitor to choose to come at a quieter time of day. Enforcement strategies such as installing cameras to deter intentional visitor damage or physical barriers to manage visitor access to fragile natural or cultural resources would help preserve the setting and resources that are key to meaningful visitor experiences at Kingsley.

Some management strategies included in the indicators, thresholds, and visitor capacities would be likely to have adverse impacts to visitor use and experience. Enforcement strategies such as increasing law-enforcement presence may result in additional visitors having negative interactions with law enforcement. Posting staff in front of buildings to manage visitor flow may impede some visitors' opportunities for self-directed exploration of the site. While not a regulatory approach to managing access, the strategy could nonetheless deter some visitors from accessing certain site features, which could be disappointing and lead to perceptions that the park is not as accessible as it could or should be.

Under alternative 2, the visitor capacities for day-to-day use and special events are established above current use levels. This would allow for overall park visitation to increase over time, either naturally or via park-initiated efforts to attract more visitors, while ensuring that appropriate strategies are in place that prevent unacceptable impacts from occurring. Implementing visitor capacities for the site helps ensure that desired conditions are achieved, having a beneficial impact on visitor use and experience, the exception being that if visitation nears or reaches capacity, there could be an adverse impact on a subset of visitors that would not be able to visit on their desired day or may be temporarily displaced from the park to a different day.

Under alternative 2, the Palmetto Avenue entrance would be abandoned and the road through the site restored to historic dimensions. Removal of vehicles would improve the setting and visitor experience near the slave cabins by eliminating traffic, noise, and dust. The quieter, nonmotorized environment with fewer distractions would be more conducive to visitors learning about enslaved people and better align with

desired conditions proposed in alternative 2, especially the opportunity for visitors to experience Kingsley as a solemn place for reflection and healing. Safety concerns and use conflict between pedestrians and vehicles along Palmetto Avenue would be eliminated, also resulting in an improved visitor experience. However, closing the road to vehicles would mean that visitors are no longer able to park adjacent to the slave cabins. The distance between this part of the site and the new parking area proposed in alternative 2 would be about a quarter-mile, which may be too far for some visitors to walk. This would make connecting to this important resource potentially more difficult for some visitors with limited mobility. Finally, closing the Palmetto Avenue entrance would have beneficial and adverse impacts on the way visitors use and experience the cultural landscape. Visitors would no longer experience the land-based historic approach through the slave cabin arc to the Planter's House, but the road would be returned to its pre-motor vehicle width, which is more compatible with the historic setting. Furthermore, traffic on the route would have been infrequent enough that its use as a pedestrian path would have been safe and common, meaning that the modern visitor experience of walking between the Planter's House and slave cabins would be consistent with the historic use. Taken all together, abandoning Palmetto Avenue would have both beneficial and adverse impacts on visitor use and experience.

The new parking lot proposed in alternative 2 would be built adjacent to the new visitor contact station with capacity for forty visitor vehicles (including four accessible spaces), four oversized parking stalls for buses and RVs, and ten staff parking stalls, bike racks, a turnaround loop, and a bus drop-off area. It would improve circulation and congestion by providing an appropriately sized and designed area for visitor parking.

It would also provide visitors immediate access to key amenities, including bathrooms. Visitors would be able to orient themselves to the site by entering the nearby visitor contact station where park personnel and information would be available to provide clear direction on where to go or what to do next. Changes to parking in alternative 2 would have a beneficial impact on visitor use and experience by improving visitor circulation and visitor orientation to the site's layout, amenities, rules, and available learning opportunities.

The new road into the site would improve the sense of arrival for visitors by delivering them to a parking area where they would immediately be exposed to a view of the historic waterfront landscape and have obvious access to the visitor contact station. The larger visitor contact station, additional restroom, and a new thirty-person picnic shelter proposed under alternative 2 would better accommodate higher levels of visitation than existing facilities. Removal, relocation, or screening of maintenance structures, utilities, and noncontributing features on the landscape would improve the historic viewshed and overall setting by better aligning with the plantation's cultural landscape. Taken together, changes to the physical features and amenities of the site proposed in alternative 2 would have beneficial impacts on visitor use and experience.

New or updated wayfinding signage would allow visitors to more easily navigate the grounds, as some of the existing signage is worn and difficult to read. Improving or adding interpretive signage and exhibits; publicly interpreting the African Burial Ground; and providing additional access to the Planter's House by offering self-guided tours and installing an accessible platform lift would all provide additional or enhanced opportunities for visitors to learn about and understand the site.

The plexiglass partitions that would limit physical access to some portions of the Planter's House could be an adverse impact on some visitors who want to tour the entire building. But by and large the changes to visitor information and interpretation under alternative 2 would better support the park in achieving its desired conditions for visitor experience.

Under alternative 2, the park would provide accessible routes and features throughout the site. This would improve the ability for all visitors to access the site, especially those with limited mobility. Path improvements and additions would make navigation more intuitive for visitors, and the coquina material replacing the rubber mulch would better align with the aesthetics of the site. Closing the shoreline in front of the plantation to public access could have an adverse impact on some visitors, including anglers, who want to access the Fort George River. But with more than 925 miles of shoreline in Timucuan Ecological and Historic Preserve alone, visitors would still have ample opportunity to seek out water-based activities nearby. Some visitors may view fishing in particular as incompatible with the reflective experience they are seeking at the site, so closing the shoreline would have a positive impact on their visitor experience.

Lastly, the construction or installation of the proposed parking area, facilities, signage, and paths would impact the experience of some visitors to Kingsley Plantation. The park would strive to complete work on the days when the site is closed to visitors; endeavor to keep existing amenities open and available to visitors until the new amenities are finished; and proactively communicate construction schedules to visitors prior to their arrival so they can make alternate trip plans. While these mitigation measures would diminish the impacts of implementing alternative 2, they would not alleviate the impacts entirely.

Visitors may not be able to access an area during their visit, which could be frustrating or disappointing, especially if they've come from far away and would not be able to easily return. The noise and activity associated with construction could detract from the contemplative experience that some visitors are seeking and the park is trying to achieve through its desired conditions. These adverse impacts to visitor use and experience would be temporary, however, only lasting for the duration of the construction period.

Cumulative Impacts—Alternative 2 would contribute long-lasting and broad beneficial impacts to visitor use and experience because of the comprehensive improvements to the built environment, interpretive offerings, and visitor use management direction, which affect all visitors. Adverse impacts to visitor use and experience, on the other hand, such as partitioning off rooms in the Planter's House, closing the shoreline of the Fort George River, or temporarily limiting access to areas of the site during construction, would only affect a subset of overall visitors and generally just for a portion of their visit. The exception to this is closing Palmetto Avenue to vehicular access, which would have beneficial and adverse impacts to all visitors, as it would influence the way they enter, use, and experience the site. Taken together, the impacts from implementing the actions in alternative 2 would contribute an overall beneficial increment to visitor use and experience. When the impacts of alternative 2 are combined with impacts of other past, present, and reasonably foreseeable future actions and trends, the overall cumulative impact on visitor use and experience would continue to be beneficial.

Alternative 3 (NPS Preferred Alternative)

The desired conditions, indicators and thresholds, visitor capacities, and associated management strategies proposed in alternative 3 would be the same as in alternative 2 so the impacts to visitor use and experience would be as described above.

Under alternative 3, the Palmetto Avenue entrance would be retained as the primary vehicular entrance road into Kingsley Plantation. A pedestrian path would be added parallel to Palmetto Avenue with post-and-cable fencing to separate vehicles from people. The traffic control fencing would improve visitor safety and reduce use conflict from current conditions, though visitors could still walk on the road. Visitors with limited mobility would be able to continue to park adjacent to the cabins. Keeping the road open would ensure that they also have the opportunity to directly access and connect with this key part of the site's story. However, a desired condition for the site states: "Once away from higher densities of visitors and visitor facilities ... visitors are able to experience Kingsley Plantation as a place of reflection, healing, and resilience." The noise and dust from vehicles regularly driving by the slave cabins and African Burial Ground, would have the potential to detract from the solemnity of the area. Therefore, this component of alternative 3 would not contribute to a contemplative setting that supports the achievement of the desired condition. Considered all together, retaining Palmetto Avenue as a vehicular entrance and adding a pedestrian path would have both beneficial and adverse impacts on visitor use and experience.

The new parking lot and changes to the physical features and amenities of the site proposed in alternative 3 would be the same as alternative 2 and result in beneficial impacts on visitor use and experience.

Wayfinding and interpretation would be as described in alternative 2, with the same beneficial and adverse impacts on visitor access and opportunities for visitors to learn about and understand the site.

The pathways and their design would be the same under alternative 3 as alternative 2 except for additional pedestrian pathways to the slave cabins, which would provide safer routes to this key feature of the site. While visitors would still be able to walk on Palmetto Avenue, there would be improved options for reaching the slave cabins and African Burial Ground without having to pass moving vehicles.

The impacts to visitor use and experience from the construction of the features proposed in alternative 3 would be the same as alternative 2.

Cumulative Impacts—As with alternative 2, alternative 3 would contribute long-lasting and broad beneficial impacts to visitor use and experience because of comprehensive improvements to the built environment, interpretive offerings, and visitor use management direction, which affect all visitors. Adverse impacts to visitor use and experience, on the other hand, would only affect a portion of visitors for a portion of their visit, as in alternative 2. Palmetto Avenue remaining open to vehicles would contribute an additional adverse impact to visitor use and experience beyond what is identified in alternative 2 by detracting

from the contemplative setting and desired conditions for visitor experience established in alternative 3. It would also beneficially impact visitor use and experience, as keeping the road open in alternative 3 would be more inclusive of visitor of all physical abilities than closing the road and requiring visitors to park a quarter-mile away, as is proposed in alternative 2. Taken together, the impacts from implementing the actions in alternative 3 would contribute an overall beneficial increment to visitor use and experience. When the impacts of alternative 3 are combined with impacts of other past, present, and reasonably foreseeable future actions and trends, the overall cumulative impact on visitor use and experience would continue to be beneficial.

Conclusion

Alternative 1 would be the continuation of current management, as described in the affected environment section; therefore, there would be no new direct or cumulative impacts to visitor use and experience. Alternatives 2 and 3 would both contribute long-lasting and broad beneficial impacts to visitor use and experience at Kingsley Plantation. Closing Palmetto Avenue to vehicles, as proposed in alternative 2, or keeping it open to vehicles, as is proposed in alternative 3, would contribute differing beneficial and adverse impacts to visitor use and experience, though ultimately, either action alternative would improve the overall visitor use and experience from its current condition.

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Chapter 5: Consultation and Coordination

PUBLIC INVOLVEMENT

Civic engagement began in September 2022 to inform the DCP and EA. During this time, the public and stakeholders were invited to share relevant information for the planning process. The purpose of this civic engagement was to obtain public feedback on preliminary management strategies to assist with the development of the plan. During this time, the public was invited to learn more about the preliminary strategies at a dedicated website and submit written comments via mail or Planning Environment & Public Comment (PEPC) online.



Two in-person public meetings (at Kingsley Plantation and Fort Caroline) and one virtual public meeting were held in September and October 2022 to discuss draft management strategies and answer questions about the project. During the meetings, NPS staff explained the plan process, showcased methods for public comment, and answered participants' questions. In addition to the public meetings, the park also hosted a stakeholder meeting at the plantation to discuss the proposals with the Gullah Geechee community and descendants of enslaved families at Kingsley.

Public feedback gathered during a comment period that ran from September 12, 2022, through October 14, 2022, was utilized to update the management strategies and prepare the DCP. The plan reflects the suggestions, ideas, and concerns shared by the public during the civic engagement period.

STATE HISTORIC PRESERVATION OFFICE

A letter was sent to Florida State Historic Preservation Officer on September 1, 2022, initiating consultation under section 106 of the National Historic Preservation Act on the DCP. The park is continuing this consultation process and anticipates development of a memorandum of understanding that would specify mitigations for any adverse impacts to cultural resources associated with the implementation of the DCP.

US FISH AND WILDLIFE SERVICE

An email was sent to the US Fish and Wildlife Service on March 9, 2023, initiating consultation on the Kingsley DCP and indicating that the park anticipated no impacts to endangered species or their habitats in association with implementation of the DCP.

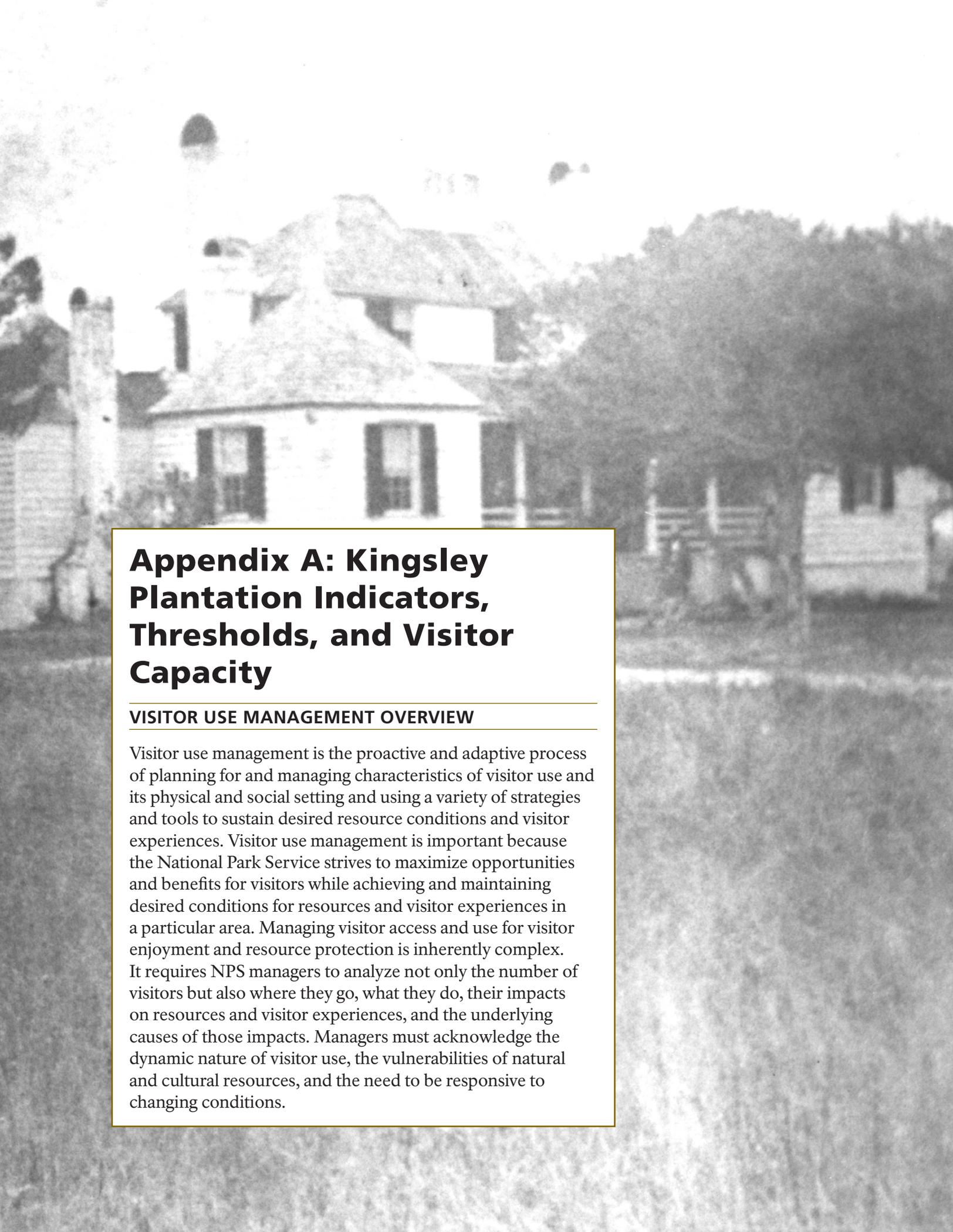
In addition, the Information for Planning and Consultation (IPAC) website for the US Fish and Wildlife Service was queried on December 12, 2022, for the most recent list of species and their designated critical habitat protected under the Endangered Species Act that may be impacted by projects at the Kingsley Plantation (Reference: USFWS Florida ECOS IPaC - Project Code: 2023-0024649). The park will continue to consult with USFWS and will share this document with them.

FEDERALLY RECOGNIZED TRIBES

On September 1, 2022, invitations to participate in government-to-government consultations on the Kingsley DCP were sent to the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Muscogee Creek Nation, and the Seminole Nation of Oklahoma. The park will continue to engage its Tribal partners as the planning process continues and during implementation.

OTHER ORGANIZATIONS RECEIVING A COPY OF THIS DOCUMENT

- The City of Jacksonville
- Florida State Parks – Fort George Island Cultural State Park
- Gulla Geeche Cultural Heritage Corridor Commission



Appendix A: Kingsley Plantation Indicators, Thresholds, and Visitor Capacity

VISITOR USE MANAGEMENT OVERVIEW

Visitor use management is the proactive and adaptive process of planning for and managing characteristics of visitor use and its physical and social setting and using a variety of strategies and tools to sustain desired resource conditions and visitor experiences. Visitor use management is important because the National Park Service strives to maximize opportunities and benefits for visitors while achieving and maintaining desired conditions for resources and visitor experiences in a particular area. Managing visitor access and use for visitor enjoyment and resource protection is inherently complex. It requires NPS managers to analyze not only the number of visitors but also where they go, what they do, their impacts on resources and visitor experiences, and the underlying causes of those impacts. Managers must acknowledge the dynamic nature of visitor use, the vulnerabilities of natural and cultural resources, and the need to be responsive to changing conditions.

This plan/EA employs the visitor use management framework and the visitor use management planning process to develop a long-term strategy for managing visitor use at Kingsley Plantation. The general planning process used for this plan is described below (figure 21) and is consistent with the guidance outlined by the Interagency Visitor Use Management Council (IVUMC 2016). “Indicators and thresholds” and “visitor capacity” are two important pieces of the visitor use management framework being applied in this plan.

INDICATORS AND THRESHOLDS OVERVIEW

This section includes indicators, thresholds, and management strategies identified as part of both alternatives in the Kingsley Plantation DCP, prepared in accordance with the Interagency Visitor Use Management Council’s Visitor Use Management Framework. More information about the framework can be found at <http://visitorusemanagement.nps.gov>.

Indicators are specific resource or experiential attributes that can be measured to track changes in conditions so that progress toward achieving and maintaining desired conditions can be assessed. Thresholds are the minimum acceptable conditions associated with each indicator. Each indicator may have one or more thresholds associated. Together, indicators and thresholds provide park managers with monitoring protocols to ensure that desired conditions for resources and visitor experiences are achieved and maintained over time.

The planning team considered many potential issues and related indicators that would identify impacts of concern, but the three described in this section were ultimately selected because of the importance and vulnerability of the associated resources, including visitor experience. In identifying meaningful indicators, the planning team also reviewed what has been developed for other park units with similar issues. This section also contains “other related monitoring,” which outlines issues that are important for the park to monitor and work to address but were not developed into formal indicators and thresholds at this time.

The planning team identified management strategies associated with each indicator. Some of these strategies are currently in use and may be increased in response to changing conditions. Other potential management strategies would be implemented if and when monitoring indicates that thresholds are being approached or exceeded.

The iterative practice of monitoring, implementing management strategies, and then continuing to monitor their effectiveness allows park managers to maximize benefits for visitors while achieving and maintaining desired conditions for resources and visitor experiences in a dynamic setting. Future management strategies would be explored if the other management strategies did not work. Details of future management strategies would be developed at the time they are needed in order to ensure that the most effective approach is implemented. The impacts of these future management strategies would be analyzed in future compliance as needed and be made available to the public. See the following tables for the indicators, thresholds, monitoring strategies and management strategies that would be monitored and employed during implementation of the Kingsley Plantation DCP.

FIGURE 21. OVERVIEW OF VISITOR USE MANAGEMENT PLANNING PROCESS

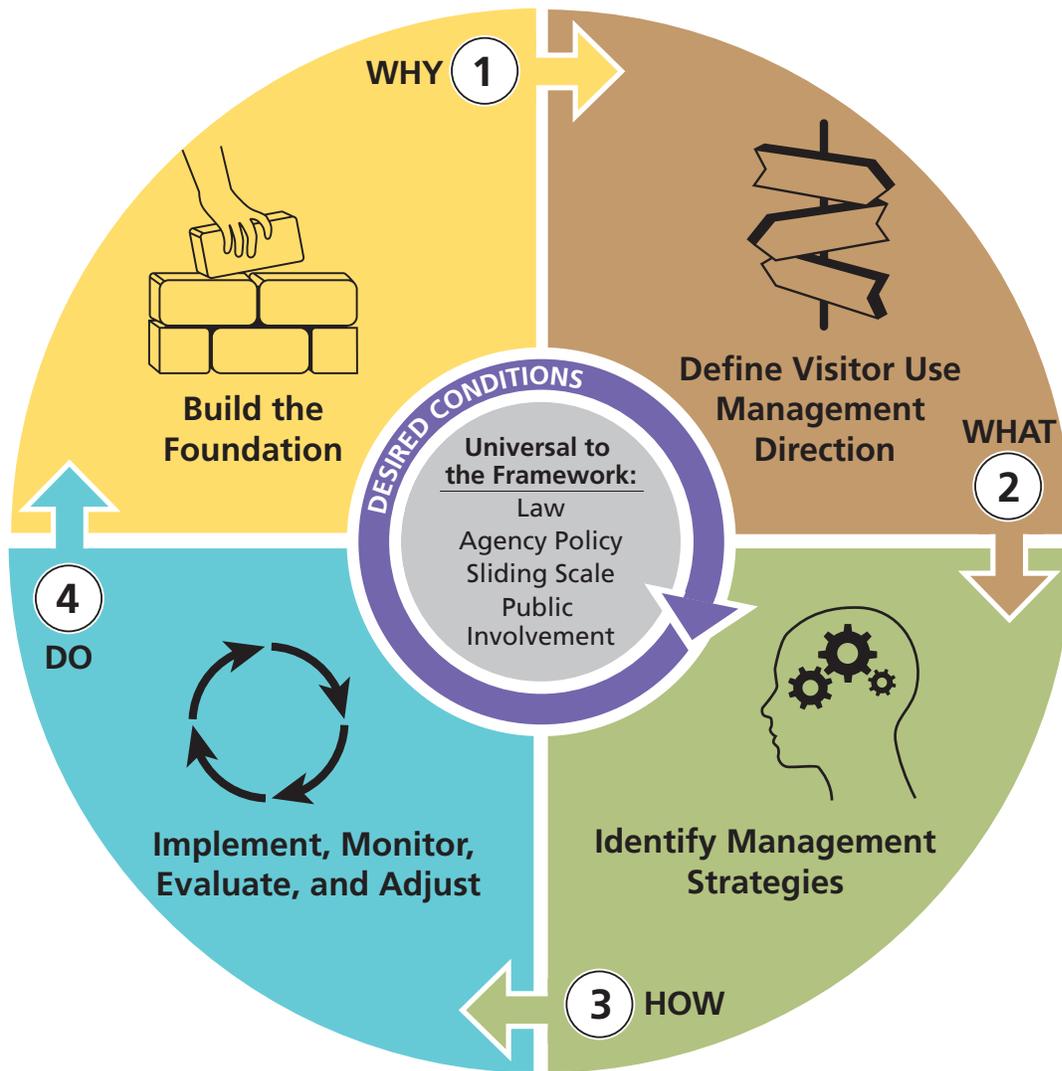


Table 2. Visitor experience and crowding indicator

Indicator Topic	Visitor Experience and Crowding
Indicator	Number of people at one time (PAOT) at key points of interest.
Thresholds	<p>For the below areas, the identified PAOT would not be exceeded 80% of the sampled time over a twelve-month period:</p> <ul style="list-style-type: none"> - Slave Cabin (E1) adjacent to Palmetto Avenue: 15 PAOT - Visitor Contact Station: 25 PAOT - Planters House: 15 PAOT - Anna's House: 15 PAOT - African Burial Ground: 15 PAOT
Rationale	<p>This indicator measures the number of visitors at one time at key points of interest at Kingsley Plantation. Monitoring this indicator would help park staff understand if desired conditions for the visitor experience are being achieved, including opportunities for reflection and contemplation. Particularly for indoor points of interest, this indicator would help track high visitation levels that may lead to crowding or congestion, which impact visitor circulation and the ability for visitors to access, connect with, and learn about the plantation's history. Given that most of these areas of interest are also sensitive cultural resources, park staff may be able to better understand the relationship between visitor use levels and cultural resource conditions. The thresholds are based on staff knowledge about circulation through the site and professional judgment of the relationship between desired conditions and number of visitors at each site. Adhering to the threshold 80% of the sampled time accounts for temporary upticks in visitation levels throughout the day and the higher concentrations of visitors that are deemed acceptable during special events or on an organized tour such as a school program.</p>
Monitoring Strategy	<ul style="list-style-type: none"> - The park would establish monitoring intervals for the key points of interest listed above. Other sites could be added at the park's discretion. - For each monitored point of interest, the number of people at one time would be documented for a predetermined period of time (such as one hour) from a specific vantage point. Monitoring would take place at as many different times of the day and year as practicable. Staff and volunteers would capture this data with trail cameras and/or by following a social observation protocol, then input it into a centralized database. - At the end of twelve months, park staff would analyze the data points to see if thresholds were exceeded and employ management strategies as needed. - Over time, staff may be able to correlate the number of vehicles in the parking lot or the number of vehicles per hour from a traffic counter with the number of people at one time at the key points of interest. This could then become an acceptable way to monitor this indicator.

Indicator Topic	Visitor Experience and Crowding
Current Management Strategies	<ul style="list-style-type: none"> - Continue to require school groups to schedule their visits with park staff. - Continue to manage group sizes during guided tours in the buildings.
Potential Management Strategies	<p>If monitoring determines that a threshold is being approached or exceeded, one or more of the following management strategies or actions may be implemented:</p> <ul style="list-style-type: none"> - Make greater public education efforts to encourage voluntary redistribution of visitor use to off-peak times when the site as a whole may have fewer visitors. Online and in-person resources could be developed and could be available to visitors in a variety of languages. - Encourage visitors to disperse throughout the site by prioritizing interpretive product development, including self-guided tour materials, that attract people to less-visited areas of the plantation. - Encourage visitors to wait to enter the above locations if they see it is already full of other people. - Offer additional programming, shift the program schedule, change program routes, and/or move the ranger pop-up locations to spread visitors out. - Offer additional interpretive resources online to allow people to experience elements of the site virtually. - Increase the use of park personnel (staff, interns, partners, and/or volunteers) to manage visitor flow, particularly into historic buildings.
Future Management Strategy	<p>This future management strategy would be considered if the above management strategies are not effective and there is evidence that conditions are trending away from desired conditions or are approaching thresholds.</p> <ul style="list-style-type: none"> - Implement timed-entry reservations for visitors to manage the total number of visitors at one time to Kingsley Plantation.

Table 3. Vehicle flow and congestion indicator

Indicator Topic	Vehicle Flow and Congestion
Indicator	Change in road width at the identified segments.
Threshold	No more than a 20% increase in the average road width at any of the identified segments compared to the baseline.
Rationale	<p>This indicator measures the change in road width for specific segments of road within the Kingsley Plantation. Monitoring change in road width would help park staff understand the effectiveness of efforts to improve wayfinding and circulation, such as a new visitor parking lot and improved signage, in lessening resource damage. If visitors understand where to park and begin their visit, they would be less likely to pull over at attractions along the way, as they do now, where their vehicles may trample vegetation or impact sensitive cultural resources. With a larger and better designed parking area, visitors would be less likely to park along roads, as they sometimes do now, and potentially widen them or cause soil erosion. Since roads could also widen as a result of traffic congestion and high visitation levels, this indicator would also help park staff understand how increasing use levels might impact park resources and which management strategies may be most appropriate to implement.</p> <p>Because staff can monitor this indicator with relative ease using a simple protocol, park managers would have regular and consistent data to assess whether conditions are worsening and what type of management action is appropriate.</p>
Monitoring Strategy	<p>Park staff would commit to monitoring at least two road segments through this plan. These would be segments that see regular vehicular traffic and that DCP updates, such as the new parking lot, would stand to affect. Up to seven spots along each segment would be identified and staff would measure the road width at these locations once every twelve months. Monitoring would commence once road and parking area improvements have been implemented. This would establish the baseline from which changes should be compared.</p>

Indicator Topic	Vehicle Flow and Congestion
<p>Potential Management Strategies</p>	<p>If monitoring determines that the threshold is being approached or exceeded, one or more of the following management strategies or actions may be implemented:</p> <ul style="list-style-type: none"> - Install additional signage along the roadway to direct people to the appropriate place to park: the new visitor parking lot. - Make greater public education efforts to encourage voluntary redistribution of visitor use to off-peak times to reduce high visitation levels. - Offer additional tours and programs or shift their timing to spread visitors out. - Increase patrols and ask visitors parked in undesignated areas to park in the visitor parking lot. - Document unauthorized parking and work with off-site law enforcement to issue appropriate warnings or citations to those visitors. - Repair road damage such as potholes that people may be driving around to avoid damaging their vehicles. - Limit parking to designated areas only to eliminate parking on the shoulder of the roads.
<p>Future Management Strategy</p>	<p>These future management strategies would be considered if the above management strategies are not effective and there is evidence that conditions are trending away from desired conditions or are approaching thresholds.</p> <ul style="list-style-type: none"> - Install additional park-approved vehicle turnouts to allow vehicles to pass more safely and easily. - Install post and cable along some or all road segments to prevent people from driving off and/or widening the road.

Table 4. Oversized vehicle parking indicator

Indicator Topic	Oversized Vehicle Parking
Indicator	Number of oversized parking spaces occupied at one time.
Threshold	All four oversized parking spaces are occupied at one time no more than once per week over the course of a year.
Rationale	<p>Currently, the timing of tour bus arrivals and departures are not coordinated with park staff and have the potential to overwhelm the site’s facilities, park in inappropriate places (such as along roadsides or taking up multiple car spots in the parking lot) and impact the experiences of other visitors. School groups come on buses as well but are required to coordinate their trip with park staff. Private visitors do show up in RVs, but it is a rare occurrence (estimated at two times a month), given the narrow, rough road to get to the plantation.</p> <p>The park plans to build four oversized parking stalls as part of this DCP. This indicator would help park staff evaluate the effectiveness of the parking expansion while providing them with additional management tools should the redesign not fully address the issues related to oversized vehicle parking. Staff are comfortable with occasional spikes in visitation to the site and want to accommodate visitors on their terms as much as possible. The threshold is established to reflect this perspective while recognizing that continual occupation of the larger parking sites would not allow the park to achieve its desired conditions.</p> <p>Since park personnel already monitor visitation closely, this indicator would not require much if any additional staff or volunteer time.</p>
Monitoring Strategy	Park staff would continue to document tour buses and school groups as part of their visitor use statistics. Given that the new visitor contact station would be in close proximity to the parking lot under both DCP alternatives, it would be easy for staff to monitor the arrival of buses and RVs. Staff would make note in their daily logs if there were ever two or more oversized parking spots occupied at one time. As part of end-of-year reporting, staff would review this data and take management action if needed.
Current Management Strategy	- Continue to work with school groups to schedule their trips.

Indicator Topic	Oversized Vehicle Parking
<p>Potential Management Strategies</p>	<p>If monitoring determines that the threshold is being approached or exceeded, one or more of the following management strategies or actions may be implemented:</p> <ul style="list-style-type: none"> - Work with tour bus companies to voluntarily schedule them in order to minimize tour group overlap with other organized groups, ensure sufficient staffing levels, or steer them toward less busy times of day. - Use strategies outlined under other indicators that reduce high visitation levels, congestion, and resource impacts (such as encouraging use during less busy times). - Require tour buses to obtain any permits for access, within the limit of NPS policy and authority.
<p>Future Management Strategies</p>	<p>Future management strategies would be considered if the above management strategies are not effective and there is evidence that conditions are trending away from desired conditions or are approaching thresholds.</p> <ul style="list-style-type: none"> - Require any group or individual that would use the oversized parking to schedule their visit to Kingsley Plantation. - Close the site to organized groups at certain times of the day, week, and/or year. - Manage the total number of organized groups allowed over the course of one day.

OTHER RELATED MONITORING

Visitor-caused Damage to Park Historic Resources

The Kingsley Plantation is the oldest surviving example of an antebellum Spanish Colonial plantation. The associated cabins are the largest concentration of existing slave quarters constructed of tabby, composed of lime burned with oyster shells mixed with sand, water, ash, and other shells found in the United States. The site preserves some of the best-known and studied archeological evidence of the lives of enslaved Africans in America and provides a window into their lives. The Timucuan Ecological and Historic Preserve foundation document identifies Kingsley Plantation as a fundamental resource and value. Given the importance of historic resources at Kingsley, park staff monitor and respond to incidents of visitor-caused damage to park resources, including vandalism, graffiti, theft, and other impacts, both intentional and unintentional. Staff regularly walk the grounds and are familiar with the condition of its buildings, exhibits, and interpreted items. Staff report their findings per the park's associated standard operating procedure, which is updated as needed and disseminated to staff through relevant trainings such as seasonal orientation for park interpreters to ensure consistency in what is identified and reported.

The park did not identify this topic as a formal indicator at this time because further discussion on an appropriate threshold is needed, which will require additional data collection and data analysis. Visitor use will always cause some impact, but careful and frequent monitoring will help minimize the level of impact to the fullest extent possible. This is important, given how integral historic resources are to the purpose and significance of the park and central to the opportunities and experiences visitors seek at Kingsley Plantation.

Therefore, what constitutes “damage” and what is minimally acceptable while still achieving desired conditions for cultural resources needs to be closely considered and clearly defined. Park staff are committed to engaging further in these conversations and have already developed a suite of potential management strategies that would support the protection of historic resources.

Noise Level

Noise from people recreating on the Fort George River next to the Kingsley Plantation can disrupt and diminish the visitor experience, particularly the ability to hear the natural sounds at the plantation and reflect on the site and its stories. The river corridor is not under NPS management, so the park is limited in the direct actions it can take to address this issue. Moving tours to different areas of the historic site, scheduling them for different times of the day, or engaging the local boating community to help them better understand the plantation and desired visitor experiences are all things that park staff could do to reduce the impact of noise on visitors. The park could also work with partners such as the USACE and the State of Florida to encourage development of a no-wake zone or other on-river management strategies. Park staff are exploring conducting a baseline condition assessment of the acoustic environment at Kingsley. These data would help the park understand the impact their actions or the actions of their partners have on the site's natural sound quality over time. It could also help inform the development of an indicator and threshold related to the acoustic environment of Kingsley in the future.

Shoreline Condition

Under the DCP, the shoreline in front of Kingsley Plantation would be closed to visitors, including anglers and kayakers, to protect and enhance the living shoreline. The marsh grass serves an important role in stabilizing the sensitive riverbanks, and recreationists trample the vegetation and contribute to erosion. The shoreline is also a contributing feature of the cultural landscape, so it plays an important role in achieving the desired natural conditions for the plantation. The park's inventory and monitoring staff plans to monitor shoreline erosion, but the park would not set a defined threshold for shoreline condition at this time, instead relying on the professional knowledge of staff to recognize and respond to incidents and trends in damage. The park is committed to taking action to protect the shoreline and continue active restoration efforts.

Humidity Levels in Historic Buildings

Park staff currently monitor humidity levels in some of the plantation's historic buildings. High humidity levels can cause damage to historic resources and visitors entering and exiting these buildings can contribute to a change in humidity levels. If more people visit these structures, humidity levels could increase and the historic resource could be degraded. This is already being monitored by park staff and potential management strategies have been identified. Its relevance to cultural resources and visitation levels makes it worth noting in this plan.

VISITOR CAPACITY OVERVIEW

This section includes the visitor capacity identification for both alternatives in the Kingsley Plantation DCP, prepared in accordance with the Interagency Visitor Use Management Council's visitor use management framework. More information about the framework can be found at <http://visitorusemanagement.nps.gov>.

Visitor capacity is defined as “the maximum amounts and types of visitor use that an area can accommodate while achieving and maintaining the desired resource conditions and visitor experiences that are consistent with the purposes for which the area was established.” By establishing visitor capacities for areas of a park unit and implementing them with appropriate management strategies, the National Park Service can help ensure that resources are protected and that visitors have the opportunity for a range of high-quality experiences. The planning team followed the framework's process for identifying visitor capacity, including the following guidelines: (1) determine the analysis area, (2) review existing direction and knowledge, (3) identify the limiting attribute, and (4) identify visitor capacity. Once a capacity is identified, related strategies and actions for implementation and management within capacities are also identified.

In addition to being an effective management tool, identifying visitor capacities is directed by legal mandate. The National Parks and Recreation Act of 1978 requires the National Park Service to identify and implement commitments for visitor capacities for all areas of a park unit. Visitor capacities for other areas of Timucuan Ecological and Historic Preserve are not included in this analysis.

Visitor capacities are management decisions based on the best available data and other factors, including professional judgment, staff experience and expertise, lessons learned, and public input. Visitor capacity identifications, as with other management decisions, provide guidance to help parks achieve desired conditions. Visitor capacities can be adjusted with appropriate environmental compliance as new information becomes available via further study, analysis, and monitoring.

Future monitoring of use levels would inform the National Park Service if visitation is at or near established capacities. To ensure day-to-day use levels stay within identified visitor capacities, the park would use the management strategies detailed in the indicators and thresholds section of this appendix. Event-specific visitor capacity management strategies are detailed below.

Determine the Analysis Areas

Given the consistent desired conditions, visitor use patterns, and management objectives across Kingsley Plantation, only one analysis area—the entire site—was determined to be necessary and meaningful to determine visitor capacity.

Review of Existing Direction and Knowledge

During this step, the planning team reviewed desired conditions, indicators and thresholds, key management issues affecting achievement of desired conditions, and information about current visitor use levels.

The site is located off a narrow dirt road on a sparsely populated island about a forty-five minute drive from Jacksonville, Florida. Most visitors to Kingsley are making an intentional trip to see and experience the historic site. They come primarily to learn about the plantation’s history and participate in guided or self-guided interpretive activities such as “The Lion’s Story Teller,” an audio tour of the site. Park staff have shifted away from formal interpretive programs on a set topic in recent years, instead offering more open houses, pop-up activity stations, and roving rangers as ways to informally engage visitors and interpret the site based on their interests. A formal program may have fifteen people in attendance, with an informal program reaching about forty-five visitors. Visitors tend to flow through the site without lingering in any one spot for long, which limits crowding and congestion.

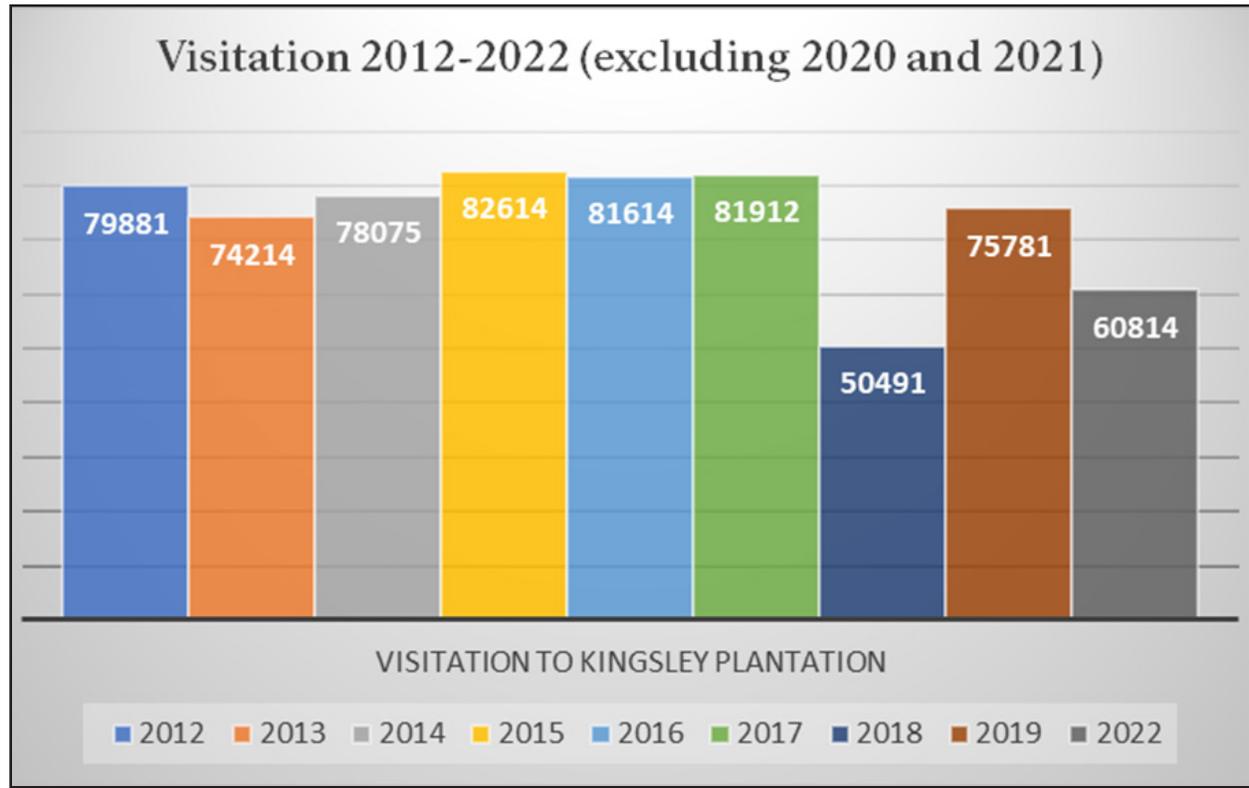
The slave cabins are about a quarter mile from other attractants such as the visitor contact station, restrooms, and buildings associated with the plantation owner. Especially in very hot, humid weather, some visitors do not always make it to the cabins. However, the entrance road currently passes by the slave cabins, so visitors may stop and view them at that time.

Nature watching, picnicking, and fishing are less-common activities. People also use the site for family reunions, weddings, birthday parties, and other group activities. About 45% of the site’s visitors are over the age of sixty, according to recent park surveys, and staff estimate most visitors stay an average of two hours (NPS 2012-2019). The site is busiest in late mornings onward, with weekends, holidays, and nice weather days attracting the most visitors. During a weekday with nice weather, park staff host about ninety visitors; on a weekend with nice weather and a variety of interpretive activities they may host 200-300 people each day. On busy days, visitors park along the road and in undesignated spots as the existing parking lot often fills to capacity.

Prior to the COVID-19 pandemic, visitation to the plantation was relatively stable, as Figure 22 demonstrates. 2022 numbers are lower due in large part to the fact that the plantation is now closed two days a week. The park arrives at its visitation numbers by using a vehicle counter and multiplying the number of vehicles by 3.2 persons. The multiplier was developed based on consultation with park service visitor statistics program staff and observations of group sizes.

The park has a robust education program at Kingsley Plantation; in the years prior to the COVID-19 pandemic, staff served between approximately 1,750 and 4,000 students per year. These groups generally comprise no more than thirty people arriving in a single

FIGURE 22. VISITATION TO KINGSLEY PLANTATION



school bus; they tend to come mid-mornings and stay for a few hours. Park staff aim to work with schools to meet their needs, so staff are open to accommodating larger group sizes and alternative timing of programs. School groups must schedule their visits with park staff in advance.

Tour buses also make stops at the site several times per month. Each bus carries on average forty people. If buses come together because they are part of the same tour group, they generally stagger their arrival in fifteen-minute intervals. The tour bus companies do not convey their planned arrival times to park staff ahead of time. While they do not stay long given their broader itinerary, the influx of tour buses can lead to pulses of high use levels and temporary crowding at the gift shop and restrooms.

Special events are occasionally hosted at Kingsley Plantation, including the Kingsley Heritage Celebration, where music, art, stories, archeological discoveries, crafts, and food ways borne out of the plantation era are shared with the broader public. In 2016, about 1,800 people attended the event, which is held over multiple days.

The Kingsley Plantation is currently open five days a week, Wednesday through Sunday, 9 am to 5 pm. The site is gated and otherwise closed to visitors. There is no fee for any of the sites in the Timucuan Ecological and Historic Preserve, including the Kingsley Plantation.

Overall, the park is working with partners and the local community to raise awareness of the unit and what it has to offer. Staff feel the site could accommodate more visitation, so

they are reaching out to the local community and designing programs that are relevant and interesting to a wider array of people. The proposed alternatives in the DCP would address several areas of concern and make the site more resilient to visitor use. For instance, relocating and expanding the parking area would address concerns about cultural resource damage caused by vehicles. The site-wide indicators and thresholds developed in the DCP process would provide tools to monitor impacts to resources and desired conditions along with potential visitor use management strategies.

Identify the Limiting Attribute

This step requires identifying the limiting attributes that most constrain the analysis area's ability to accommodate visitor use. This step is important to better understand the unique dynamics of visitor use in relation to desired conditions in the analysis area and directly informs the visitor capacity identification.

The primary limiting attribute that constrains the area's ability to accommodate use is cultural landscape degradation. The high density of archeological and historic resources, their unique contribution to American history, and their significance to the descendants of people who lived at the plantation all make this site incredibly sensitive. The park's foundation document identifies Kingsley Plantation as a fundamental resource and value stating:

Kingsley Plantation is the oldest surviving example of an antebellum Spanish Colonial plantation in the United States. The site exemplifies the transition from Spanish Empire rule in Florida to US territory governance in the early 1820s, providing a drastic contrast of the different systems of slavery.

The tabby slave cabins found at the site represent one of the largest intact collections of such buildings in the United States and serve as a window into the lives of enslaved Africans on the plantation. The cultural landscape of the Kingsley Plantation gives a voice to the plantation owners and enslaved Africans who lived and worked there.

The DCP desired conditions further underscore this, stating: "The archeological and historic resources of Kingsley Plantation are documented, understood, and protected." Having too many visitors to the site could cause unacceptable damage to cultural resources. Several of the indicators and topics under other related monitoring are particularly relevant to this limiting attribute because they would help park managers understand when or if action should be taken to further protect cultural resources.

This limiting attribute also constrains the development of additional visitor facilities. The DCP states: "Facilities at Kingsley Plantation are limited to meet the needs of visitors, without disturbing the cultural landscape." The ability for the park to add new or expanded facilities to accommodate higher levels of visitor use would ultimately be constrained by the cultural landscape and the park's commitment to protect it. In other words, the park can only engineer solutions to support higher visitation levels up to a point before it is no longer meeting desired conditions for the site. While some facility resources such as additional parking could theoretically be built offsite, bathrooms need to be easily accessible to visitors.

The secondary limiting attributes that constrain this area's ability to accommodate use are the desired conditions for visitors to have the opportunity for contemplation and to learn about the significance of the site.

As use increases, the social setting may be diminished, making it more difficult for visitors to connect with this park-wide fundamental resource. Monitoring the indicator “Number of people at one time at key points of interest” is particularly relevant for this limiting attribute, as it identifies thresholds for visitor use at important sites within the plantation and outlines strategies to manage use.

For park-sponsored special events, these limiting attributes are the same. But because desired conditions speak to the temporary allowance of a higher volume of visitors to provide for a different type of experience, the level of use for events would be higher than day to day visitation levels. However, the park recognizes that these levels of use would not be sustainable or desired on a daily basis.

Identify Visitor Capacity

Visitor capacity contains two parts. First is the identification of the visitor capacity (maximum amounts and types of use), and second is the identification of management strategies and actions that could be taken to implement visitor capacity to ensure that the amount of visitor use is managed to achieve and maintain desired conditions.

To identify the appropriate amounts and types of use for the analysis area, the previous steps were reviewed to understand current conditions and how they compare to desired conditions for the area. Based on this review, the planning team determined that current conditions are in keeping with desired conditions, which could allow visitation to increase from current levels. The team also recognized how the actions identified in the DCP affect visitor capacity. Better vehicle circulation, a bigger parking lot, a bigger visitor contact station, a bigger picnic area, additional bathroom facilities, defined trails, the removal of the maintenance area from

the historic area, changes to access to the Planter’s House, and the addition of the sugar mill and African Burial Ground as publicly interpreted resources are all actions that help to better distribute and support visitation and/or make the site resilient to increased use. Staff also recognize that these improvements and changes could cause people to stay longer because there is more to experience.

Taken all together and given the limiting attributes, the plantation could accommodate a maximum of 600 people per day—double current use levels on busy days—while achieving and maintaining desired conditions for daily use. Special events and the associated desired condition allow for a different density and intensity of use on a limited basis. Therefore, up to eight days a year, the plantation could accommodate up to 1,200 people per day, slightly more than current special event use levels without negatively impacting visitor experience or resource conditions.

As stated above, the other component of visitor capacity is identifying management strategies to ensure that use levels stay within identified capacities and desired conditions are maintained. For day-to-day use, the management strategies identified in the indicators and thresholds section of this appendix are sufficient tools to also manage to the site’s day-to-day visitor capacity.

For special events, the park would continue to:

- provide off-site parking to manage the number of vehicles on site
- ensure that there are appropriate levels of staff and facilities (such as port-a-potties)
- station volunteers and staff at sensitive resources or place temporary barricades to protect them from the higher volume of visitors

- strategically place attractants to congregate people in areas that are more tolerant of higher levels of use
- offer special programming as a way of managing high visitation levels and congestion
- disseminate event dates and details widely to so people can decide if they want to visit during an event or another time

One or more of the following management strategies could also be considered for controlling special event size, if other described management strategies are not effective and there is evidence that conditions are trending away from desired conditions:

- require attendees to obtain a ticket or RSVP in order to enter the event
- survey event attendees to understand their perception of crowding and other influences on visitor experience
- implement temporary closures to manage the general public's access to the site, except for the First Amendment area of the site.

Appendix B: Preparers and References



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PHOTO CREDIT

All photos used in this document are property of the National Park Service and/or retained in National Park Service archives.

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As the nation’s principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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Kingsley Plantation Development Concept Plan and Environmental Assessment

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