



Environmental Assessment Paces Mill Unit Rehabilitation

May 2022



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CHAPTER 1: PURPOSE AND NEED

BACKGROUND

Chattahoochee River National Recreation Area (National Recreation Area) encompasses a 48-mile section of the Chattahoochee River from Buford Dam to Peachtree Creek and 7,000 acres of adjoining lands, within an authorized boundary of 10,000 acres, in northern Georgia (figure 1). The National Recreation Area, managed by the National Park Service (NPS), includes 15 units, and had approximately 3.3 million visitors in 2021. The focal point of this environmental assessment is on Paces Mill (figure 2).

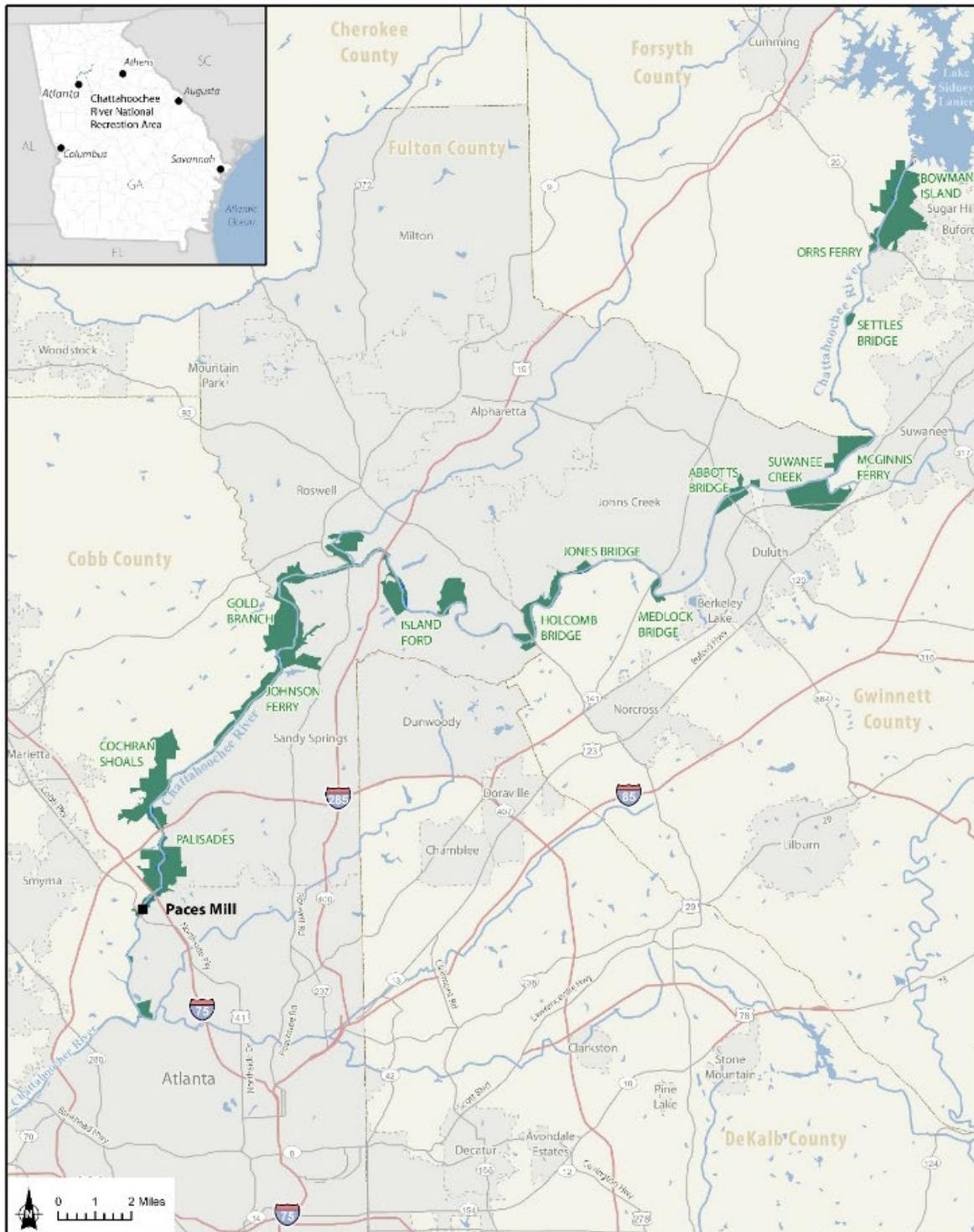
Paces Mill, in the Palisades unit, is the southernmost and farthest downstream facility of the National Recreation Area along the river. This makes it the last “take-out” point for casual rafters and kayakers. Paces Mill is adjacent to Cobb Parkway (US Highway 41 [US 41]) on the southeastern boundary of Cobb County, adjacent to Fulton County, in the northern Atlanta metropolitan area (figure 1). Paces Mill is used most often during the summer months for boating and fishing access, picnicking, jogging, and hiking. It is a key destination in the National Recreation Area with an estimated 270,000 annual visitors.

Paces Mill includes the trailhead for the popular Bob Callan Trail, also referred to as the Rottenwood Creek Trail, which is being expanded to the north under three separate projects. Paces Mill is adjacent to a 12-foot-wide multiuse trail on Cobb Parkway that will connect the National Recreation Area with the city of Atlanta and the Silver Comet Trail. Paces Mill currently includes roads, hard-surface trails, parking lots, a picnic area, mowed field, raised overlook, boat ramps, a restroom, and a pay station (figure 3).

The National Recreation Area and Cumberland Community Improvement District (CID) have entered into an agreement for the rehabilitation of the Paces Mill facilities. The Cumberland CID is a public-private assessment district in an approximately 6.5-square-mile area, about 10 miles northwest of downtown Atlanta. Located in unincorporated Cobb County, the district encircles the intersections of I-75, I-285, and US 41. It is the mechanism by which local commercial property owners advance needed public infrastructure projects that enhance property values as well as the greater community. The Cumberland CID and National Recreation Area relationship is of mutual benefit as the Cumberland Submarket continues to expand commercially and residentially, as does the demand for recreational facilities and opportunities.

The National Park Service will comply with all laws relevant to the proposed action including the Endangered Species Act (ESA), the National Historic Preservation Act, and the Clean Water Act. Consultation with federal agencies is described in chapter 4.

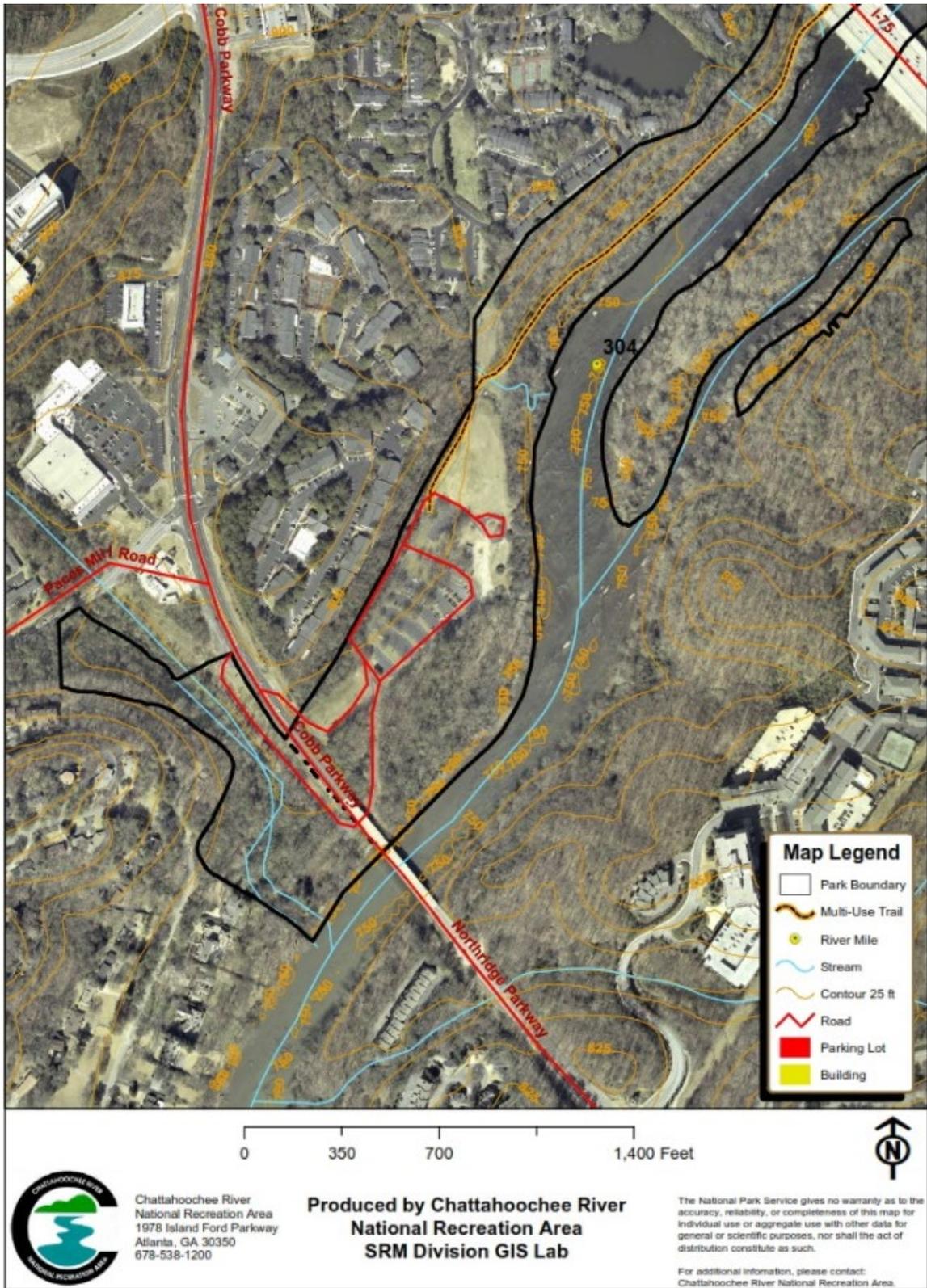
FIGURE 1. CHATTAHOOCHEE RIVER NATIONAL RECREATION AREA VICINITY MAP



Source: ESRI 2019; Georgia Data Clearinghouse 2009-2019; University of Georgia Natural Resources Spatial Analysis Laboratory 2019

- Chattahoochee River
- Water
- National Recreation Area
- Populated Place
- Limited Access
- Major Road
- County Boundary
- Local Road

FIGURE 2. PACES MILL AERIAL PHOTOGRAPH AND TOPOGRAPHY



PURPOSE AND SIGNIFICANCE OF THE NATIONAL RECREATION AREA

Purpose

“Chattahoochee River National Recreation Area preserves and protects the natural and cultural resources of the 48-mile Chattahoochee River corridor, from Buford Dam to Peachtree Creek, for the benefit and enjoyment of present and future generations (NPS 2017a).”

Significance

The significance of the natural and cultural resources in the Chattahoochee River National Recreation Area is summarized in the statements that follow. This information was used in the planning process to ensure that the National Recreation Area’s natural and cultural resources are protected in accordance with the governing laws, regulations, policies, and mandates (NPS 2009).

- **Geological Significance.** The National Recreation Area’s entire 48-mile-long corridor runs along the Brevard Fault Zone, which forms the Chattahoochee River channel. Typically, rivers meander and change course over time. Because it is essentially “locked” in place by the fault, the Chattahoochee River is one of the oldest and most stable river channels in the United States.
- **Biological Significance.** The National Recreation Area’s mixed habitat types within the old and stable Chattahoochee River channel form a biological link with the Appalachian Mountains. This has resulted in high biodiversity within the park. For example, more than 950 species of plants exist within the park, including species associated with both the southern piedmont and mountain habitats. This number of plants is one of the highest in the national park system. It is especially noteworthy that this unusually high level of biodiversity is in an area accessible to a large metropolitan population.
- **Cultural Resources Significance.** The National Recreation Area vicinity has been occupied by humans since the Archaic period, approximately 8,000 years BCE (before the Common Era). Some of the park’s remaining prehistoric features include fish weirs, rock shelters, quarries, and prehistoric occupation sites. In addition, the park contains numerous Woodland period sites along the river corridor (1000 BCE–1000 CE). The Woodland period (1000 BCE to 1000 CE) is one of the least investigated periods of Georgia prehistory and represents an area of potentially high archeological significance and research potential for the park. There are no similar counterparts in the region.
- **Recreation Significance.** The National Recreation Area constitutes an important outdoor recreation resource to several million people in the Atlanta metropolitan area. The park’s greenspace and the river improve the quality of life by serving as a sanctuary and by providing a variety of outdoor recreation opportunities such as hiking, nature viewing, paddling, bicycling, boating, and fishing. The Chattahoochee River is inhabited by approximately 15 species of game fish.

PURPOSE OF AND NEED FOR ACTION

The purpose of the action is to create a sustainable facility with a strong NPS identity and to enhance visitor enjoyment and experience, while protecting natural resources. Action is needed

at this time to address deficiencies in physical site design and appearance and infrastructure concerns.

Paces Mill is the last public “take-out” on the river in the Chattahoochee River National Recreation Area. It is highly used by a concessioner and an estimated 270,000 visitors per year, despite being only 14 acres and in a flood zone, which occasionally experiences high water. These conditions result in a congested atmosphere and user conflict issues. Paces Mill currently has the following deficiencies, which result in the site not adequately serving visitors or protecting natural resources:

- The current parking lot design and location results in water pooling in the parking lot, rather than draining into the river during flooding.
- The current parking lot design does not provide intuitive directional flow for vehicles and the unloading/staging area for the boat ramp creates a bottleneck of various users and leads to conflicts.
- The current site design results in poor pedestrian flow.
- There are problems with some site infrastructure, including water and sewerlines.
- The southern parking area is underused.
- There are no formal changing rooms and the restroom can be inadequate on busy summer days.
- Due to a lack of formal trails, visitors have created numerous social trails to view the river.
- Paces Mill lacks a strong NPS identity.

The existing physical configuration of Paces Mill is not efficiently meeting the needs of visitors and detracts from their enjoyment and safety. Action is needed at this time to address physical site design, appearance, infrastructure concerns, and deficiencies to create a sustainable facility with a strong NPS identity and to enhance visitor enjoyment and experience, while protecting natural resources.

Desired outcomes of taking action include the following:

- A more sustainable site (water quality enhancement, energy efficiency, native vegetation).
- Current site problems are corrected (vehicular/pedestrian circulation, water retention, etc.).
- Paces Mill has a clear NPS identity and is a visual gateway to the National Recreation Area. Paces Mill is one of 15 national recreation area units, the one nearest to Atlanta, and yet there is an identity crisis. Visitors may not even identify with the fact that they are in a unit of the national park system.
- Visitors to Paces Mill have an improved, safe experience.
- The site has enhanced educational and interpretive programming that improves visitor experience.
- The site more clearly promotes outdoor recreation and encourages compatible recreational uses.

CIVIC ENGAGEMENT

On June 17, 2019, the National Recreation Area began early civic engagement by releasing a newsletter notifying the public and stakeholders that rehabilitation of Paces Mill was being considered. The reasons for rehabilitation and desired outcomes were explained, along with details about potential changes under consideration. The newsletter was released to the public for review and comment via the NPS Planning, Environment, and Public Comment (PEPC) website and e-mailed to partner agencies, jurisdictions, and key stakeholders. In addition, a legal notice was published in the *Atlanta Journal Constitution* on June 23, 2019. The public was invited to submit comments electronically through the PEPC website or by mailing comments directly to the National Recreation Area. Comments were requested by July 7, 2019, to be most helpful in the process. Appendix E contains the newsletter, legal notice, and e-mail to partners and stakeholders.

Eight pieces of correspondence from the local community were received during the civic engagement period. Comments included general support for the project, support for specific components, suggestions for specific improvements, requests for clarification of design details, identification of issues to consider and organizations to consult. The public comment report is also included in appendix E. The National Park Service used these comments to inform which issues were retained for detailed analysis as described below.

ISSUES AND IMPACT TOPICS

Issues Retained for Detailed Analysis

In the context of National Environmental Policy Act (NEPA) reviews, issues can be problems, concerns, conflicts, obstacles, or benefits that would result if the proposed action or alternatives are implemented. Issues were identified from past NPS planning efforts and agency and public input during the civic engagement process. Issues have been retained for detailed analysis because (a) they are central to the proposal or of critical importance, (b) analyzing them is necessary to make a reasoned choice between alternatives, or (c) because the environmental effects associated with the issue are a big point of contention.

Table 1 includes two columns. The pivotal issues are discussed briefly in the first column. The second column includes one or more impact topics, which are headings used to organize content in chapter 3.

TABLE 1. ISSUES AND IMPACT TOPICS RETAINED FOR DETAILED ANALYSIS

Impact Topic	Issue(s)
Floodplains	Paces Mill is entirely within the 100-year floodplain. Flooding on the site, particularly in the existing parking lot, is one of the reasons action is needed. The proposed rehabilitation is designed to reduce the adverse effects of flooding on the site. This issue is analyzed in detail to assist in making a reasoned choice between alternatives.

Impact Topic	Issue(s)
Vegetation	<p>The proposed construction activities, including restoration of native endemic prairie species in a meadow where the current parking lot is located, and the removal of the existing grassy area, would result in sizeable changes to the vegetation composition of the interior of Paces Mill. Selecting the proposed construction activities would increase the quantity and diversity of native species by restoring native prairie species, and would reduce the area of primarily nonnative species by removing the grassy field at the north end of Paces Mill. This issue is analyzed in detail to assist in making a reasoned choice between the alternatives.</p>
Special Status Species - Georgia Aster	<p>Georgia aster (<i>Symphotrichum georgianum</i>), a state threatened species, was present at Paces Mill in the parking lot islands, but has not been recently observed by NPS staff. Georgia aster and other native prairie wildflower species would be planted in larger numbers in the meadow area, which would replace the existing parking lot.</p>
Visitor Use and Experience	<p>The proposal includes 8 to 11 months of construction. During construction, staging and work would be phased to keep river access open. The unit would be impacted by construction activity and would lack available parking. A boat ramp would remain open for emergency response. This construction would limit recreational use during this time. This issue is central to the proposal and analyzed in detail.</p> <p>The proposal would change the configuration and infrastructure of Paces Mill, which would affect visitor use patterns and enhance compatible recreational uses. This issue is central to the proposal and analyzed in detail.</p> <p>There are currently a variety of visual intrusions at Paces Mill, almost all of which would remain, including adjacent residences, US 41, high-voltage powerlines, etc. Views into, out of, and within Paces Mill do differ between the alternatives. The proposal includes relocating the parking lot and changing the number and size of buildings at Paces Mill. A detailed analysis of the differences in views and visual/scenic quality between the alternatives and their relationship to Paces Mill's NPS identity is necessary to make a reasoned choice, so this issue is analyzed in detail. Because visual qualities are perceived either positively or negatively by visitors, this issue is included in the "Visitor Use and Experience" section.</p>
Visitor Safety	<p>One of the primary drivers of the proposal is to address deficiencies in traffic circulation and infrastructure to enhance visitor safety. There is concern about vehicle and pedestrian conflict given the current circulation patterns and lack of pedestrian infrastructure. Existing landscaping/vegetation in the parking lot can also obscure driver views while navigating the parking area, which heightens concern for car accidents or vehicle/pedestrian interaction. On busy weekends, vehicles park on sidewalks and other areas where parking is not permitted, which raises safety concerns, including the impediment to seamless ingress/egress of emergency vehicles. These issues are central to the proposal and a detailed analysis is necessary to make a reasoned choice between alternatives.</p> <p>The current configuration of islands in the parking lot and landscaping on them makes property theft easier (e.g., car break-ins). There have been problems with illicit and homeless activity in the dense woods south of the current picnic area. These issues are central to the proposal and a detailed analysis is necessary to make a reasoned choice between alternatives.</p>

Issues Dismissed from Detailed Analysis

Issues and their associated impact topics that have been dismissed from detailed analysis are described in table 2.

TABLE 2. IMPACT TOPICS CONSIDERED BUT DISMISSED FROM DETAILED ANALYSIS

Impact Topic	Reason for Dismissal
Air Quality	Paces Mill is in a nonattainment area. The proposal includes construction, which may result in an increase in emissions from construction-related vehicles and equipment. Because it is frequently accessed by visitors in vehicles and is in the northern portion of the greater Atlanta metropolitan area, this concern is very small in context. Any increase in emissions, should they occur, would be temporary in nature during construction and would be so small that there would be no discernible change whether current management continues or the proposal is implemented. Therefore, air quality is dismissed from further analysis.
Aquatic Species	A portion of the riprap along the river shore, under the bridge, would be replaced with stone steps that would descend into the river. This action would have no discernible impact on aquatic species. Standard best management practices (BMPs), as described in chapter 2, would be implemented to minimize the possibility of construction-related sediment reaching the river and affecting aquatic plants and animals. Stormwater outfalls at the river would include riprap to minimize the potential for erosion and bank cut that could impact aquatic species. Therefore, aquatic species is dismissed from further analysis.
Archeological Resources	Between February 18 and 21, 2020, NPS Southeast Archeological Center (SEAC) archeologists conducted an archeological investigation at Paces Mill (NPS 2020). The investigation consisted of a ground penetrating radar survey and a systematic shovel test survey. The purpose of this investigation was to determine if any archeological resources were present and to evaluate their significance prior to proposed construction to upgrade the facilities and infrastructure at Paces Mill. The investigation did not reveal the presence of archeological deposits or features that would be impacted by ground-disturbing activities. For the areas that were tested, SEAC recommended the park proceed with the proposed action, with the concurrence of the Georgia Department of Community Affairs, Historic Preservation Division (HPD). The National Park Service consulted with the HPD, as described in chapter 4, and concurrence has been received (appendix G). Archeological resources are dismissed from further analysis.
Climate Change	Climate change refers to any significant changes in average climatic conditions or variability lasting for an extended period (century or longer). Although some effects of climate change are considered known or likely to occur, many potential impacts are unknown. Climate change science is a rapidly advancing field, and new information is being collected and released continually. Construction activities associated with implementation of the proposed action would contribute to increased greenhouse gas emissions, but such emissions would be short term, ending with project completion, and it is not possible to meaningfully link the greenhouse gas emissions of such individual project actions to quantitative effects on regional or global climatic patterns. Any effects on climate change would not be discernible at a regional scale. Therefore, climate change is dismissed from further evaluation.
Indian Trust Resources	No Indian trust resources are present at Paces Mill. Therefore, Indian trust resources is dismissed from further analysis.
Environmental Justice (minority and low-income populations)	An analysis of the population living within the US Census Block Group in which Paces Mill is located indicates that minority and low-income populations are not present in a meaningfully greater percentage than the general population of the region. The block group has a lower percentage of the population identifying as a minority than Cobb County and Fulton County and other nearby communities. The block group's median household income is more than that of Fulton County and only slightly lower than Cobb County. All changes proposed are intended to enhance Paces Mill's identity, aesthetics, and safety, among others, the effects of which are not exclusive to any income or race/ethnic group. The benefits of these improvements would accrue to all Paces Mill visitors/users similarly. Since the proposed changes would not disproportionately affect minority or low-income populations, environmental justice is dismissed from further analysis.

Impact Topic	Reason for Dismissal
Socioeconomics (concessioner revenue and rideshare services)	<p>There are no concession operations physically located at Paces Mill. Nantahala Outdoor Center is based at Johnsons Ferry North and Powers Island. The center is a concessioner providing guided and unguided raft trips, tubing, and kayaking. The changes being considered at Paces Mill would be expected to benefit the concessioner’s revenue and operations in the long term due to improvements to ingress/egress for client pickup at the take-out, trailer parking, etc. There is concern that the concessioner could lose business during construction if the proposal is implemented. During construction, staging and work would be phased to keep river access open. The unit would be impacted by construction activity and not have available parking, but a boat ramp would remain open for emergency response. Construction is expected to last 8 to 11 months. During this time, the concessioner could adjust the pickup location upstream, which would mitigate the potential for lost business. However, the closest NPS boat ramp is 6.8 river miles upstream at Johnson Ferry North, which likely shortens float distance/duration and potentially makes such trips less attractive to customers. Potential reductions in revenue from float trips are anticipated. If construction duration is closer to the low estimate and misses the peak summer season, impacts would be smaller. Impacts to concessioner revenue is not central to the proposal and a detailed analysis is not necessary to make a reasoned choice between alternatives. It is therefore not analyzed in detail. Related elements are addressed under the “Visitor Use and Experience” impact topic.</p> <p>Both large rideshare companies (e.g., Uber and Lyft) are currently able to operate at Paces Mill and proposed changes are expected to benefit them long term by implementing a more clearly marked pickup area/waiting zone. There is some concern that phased closures for construction at Paces Mill would hurt the revenue of individual area drivers. This concern, however, is very small because Paces Mill is in an extremely populated area and any reduction in ridership due to Paces Mill closure would most likely be compensated for by ridership elsewhere in the area. A temporary reduction in ridership during construction, should it occur, is expected to be so small in the context of the Atlanta metropolitan area as to be unnoticeable. Although rehabilitation of Paces Mill could lead to increased home values and rental rates of adjacent residences, including the adjacent apartment complexes, because so many variables affect real estate prices, attempting to tease out the relative effect of rehabilitation of Paces Mill would be relatively speculative in nature. In addition, such an effect, even if it were to occur, would be localized to just a few properties and not particularly meaningful in the context of a developed metropolitan area. The effects are not central to the proposal, are not necessary to make a reasoned choice between alternatives, and are not a point of contention. Therefore, these issues are dismissed from further analysis.</p>
Socioeconomics (construction contracts)	Any contract awarded for rehabilitation would employ one or more contractors and/or subcontractors. Although such employment would have beneficial effects in terms of direct and indirect spending and associated tax revenues, the effect would be so small that there is no way to meaningfully discuss it. Paces Mill is surrounded by residential and commercial development and associated infrastructure. Within the context of nearby communities, and especially the greater Atlanta metropolitan area, any rehabilitation or construction work at Paces Mill would be unnoticeable in terms of economic activity or impact. Such issues are not pivotal to this decision and therefore are dismissed from further analysis.
Soils	Potential impacts to soils would predominately involve erosion and sedimentation, which are addressed under aquatic species, water quality, wetlands, floodplains, and vegetation.
Soundscapes	Paces Mill is in an urban environment and typical soundscapes are present throughout Paces Mill, including road noise from US 41 and adjacent residential complexes. Additional construction-related noise would be present should rehabilitation occur, but this concern is relatively small because construction would only occur during daylight hours. Idling for more than 10 minutes would also be prohibited during construction. Because any potential increase in noise would be small and temporary, soundscapes is dismissed from further analysis.

Impact Topic	Reason for Dismissal
Terrestrial Wildlife	<p>Construction activities would primarily be conducted in areas already landscaped and containing infrastructure, so the potential to displace wildlife is limited largely to species that frequent human-made habitats and tolerate human presence. Natural surface trail construction through wooded areas would affect a narrow corridor a few feet wide, so that the area of disturbance during construction and the quantity of habitat loss long term would be minimal. Also, a substantial proportion of the brush that would be cleared is nonnative, such as Chinese privet (<i>Ligustrum sinense</i>). Long-term wildlife disturbance from people walking on the trails would be negligible based on the narrowness of the corridor, its location adjacent to currently existing sources of disturbance caused by human and vehicle presence along the adjacent roads and parking lot. Tree, shrub, and grass removal would be avoided during the bird nesting season (March 1 to August 15) to the extent practicable, reducing the potential to incidentally remove active bird nests or disturb nesting birds. Wildlife present in the wooded areas or on the river during construction activities could flush in response to noise and human presence and temporarily avoid the area, similar to the wildlife response to any construction activity. Effects are expected to be very small and therefore terrestrial wildlife is dismissed from further analysis.</p>
Threatened and Endangered Species (federal)	<p>There are five federal threatened and endangered species that could occur in Cobb County: little amphianthus (<i>Amphianthus pusillus</i>), white fringeless orchid (<i>Platanthera integrilabia</i>), Michaux's sumac (<i>Rhus michauxii</i>), northern long-eared bat (<i>Myotis septentrionalis</i>), and Cherokee darter (<i>Etheostoma scotti</i>) (USFWS 2022).</p> <p>These species are dismissed from detailed analysis for the following reasons:</p> <ul style="list-style-type: none"> ▪ Little amphianthus is an aquatic plant that occurs in shallow, flat-bottomed depressions, such as vernal pools on granitic outcrops with gravelly soils (Chafin 2020a). This type of habitat is not present at Paces Mill, and the species has not been documented in the National Recreation Area (NPS 2022a). Therefore, it is unlikely to occur at Paces Mill. ▪ White fringeless orchid grows in wet, boggy areas at the heads of streams and on sloping areas (USFWS no date). This type of habitat is not present at Paces Mill, and the species has not been documented in the National Recreation Area (NPS 2022a). Therefore, it is unlikely to occur at Paces Mill. ▪ Michaux's sumac has recently been documented at another site in the National Recreation Area in Cobb County. It grows in sandy or rocky, open woods on sandy or sandy loam soils (USFWS 2021). Although this species has not been observed at Paces Mill, its potential presence cannot be ruled out in the wooded area adjacent to the river at Paces Mill. Most of the construction disturbance and recreational use of the site once completed, would be in areas already currently developed or landscaped that does not represent potential habitat for this species. Potential habitat is limited to the wooded area along the river. Park biologists would survey the footprint of the elevated river overlooks and the route of the natural-surface trail for Michaux's sumac prior to any construction or vegetation removal. Based on the small chance that the species is present, the proposed presence/absence survey and the targeted disturbance of a small footprint, no impacts on the species are anticipated. ▪ Cherokee darter is a small fish that typically inhabits small- to medium-sized streams where they are found in association with gravel and cobble bed sediments. This type of habitat is not present at Paces Mill, and this species is only known to occur in about 20 small tributaries to the Etowah River in Georgia (Freeman and Hagler 2016). Therefore, it is unlikely to occur at Paces Mill. ▪ Northern long-eared bat roosts in tree cavities and under exfoliating bark in the summer and hibernate in caves and mines in the winter. No caves or mines exist at Paces Mill, and this species has not been documented in the National Recreation Area (NPS 2022a). Therefore, it is unlikely to occur at Paces Mill. Large tree removal would be minimized and only occur in winter where necessary.

Impact Topic	Reason for Dismissal
	<p>There is no designated critical habitat for any of these species in Cobb County (USFWS 2022).</p> <p>Monarch butterfly (<i>Danaus plexippus</i>) is a candidate for listing under the Endangered Species Act, but is not listed or proposed for listing.</p>
Water Quality	<p>There are no concerns about water quality at Paces Mill at this time. However, there is the potential for temporary sediment runoff into the Chattahoochee River during construction due to ground disturbance, grading, etc. Standard erosion control measures such as silt fences and/or sandbags would be used to minimize the potential for sediment to enter the river. The application of such mitigation measures reduces the potential for adverse effects to the river to such a degree that any sediment discharge into the river would be small and would only affect turbidity in a small area of the stream for a short amount of time. Other proposed changes would all benefit the quality of water entering the river, including site grading, the installation of bioswales, and installation of riprap at drainage outfalls at the river. Therefore, water quality is dismissed from further analysis.</p>
Wetlands	<p>A qualified wetland scientist conducted a wetlands delineation of Paces Mill on December 5, 2018 (Aarcher 2018) (appendix F). The wetland delineation was conducted in accordance with the US Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont (USACE 2012), and the Cowardin et al. (1979) wetlands and deepwater habitats classification system. The wetland scientist's qualification can be found in appendix F. The scope of the project is not large enough to affect wetlands downstream.</p> <p>The Chattahoochee River at Paces Mill, is classified as riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) (Cowardin et al. 1979). A portion of the riprap along the river shore, under the bridge, would be replaced with stone steps that would descend into the river, slightly below the ordinary high water mark. The steps would replace existing riprap. This action would have no impact on existing riverine wetland function, the total wetland impacts (permanent and temporary) from construction would be less than 0.1 acre, and the action is listed in section 4.2.1 of Procedural Manual #77-1 as an exempt action; therefore, this project is exempt from NPS Wetland Statement of Finding and compensation requirements. Stillhouse Creek is classified as riverine (Cowardin et al. 1979). The National Park Service would coordinate with the US Army Corps of Engineers to ensure that the work is authorized under section 404 of the Clean Water Act. Nationwide permit 3(a) for maintenance of an existing structure would likely cover the work. No other wetlands are located in the project area (Aarcher 2018). Wetlands is dismissed from detailed analysis.</p>

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CHAPTER 2: ALTERNATIVES

This chapter describes actions that would take place under each alternative for rehabilitation of site infrastructure at Paces Mill. Council on Environmental Quality (CEQ) regulations for implementation of the NEPA process call for the alternatives considered in a document to include a no-action alternative. The description and evaluation of this alternative provides a baseline to which the action alternative can be compared. This document evaluates two alternatives: the no-action and the preferred alternative. The elements of these alternatives are described in the following sections. Other alternatives and actions that were considered but eliminated from detailed analysis are described at the end of this chapter.

ALTERNATIVE A: NO-ACTION ALTERNATIVE

Under alternative A, the no-action alternative, the National Park Service would not rehabilitate Paces Mill. The existing configuration and infrastructure would remain in place, as in figures 2 and 3. Under this alternative, National Recreation Area staff would only take actions to address visitor safety concerns. There would be no further design, planning, or construction.

ALTERNATIVE B: PREFERRED ALTERNATIVE

Summary

The National Recreation Area is proposing to rehabilitate and reconfigure Paces Mill (figures 4–6). This includes upgrading the physical design, appearance, and infrastructure to address current deficiencies; to create a sustainable unit with a strong NPS identity; and one that is safe, easy to access, and enjoyable to visit.

There are two entrances to the site—one off US 41 northbound and one off US 41 southbound (figure 4). The existing signage at both entrances would be enhanced with landscape plantings to make the signs more visible. The entry road from US 41 southbound would be reconfigured with the addition of shade and evergreen trees (except within the 150-foot-wide Georgia Power easement), traffic calming speed tables, and 30 parking spaces. Both entry roads would accommodate two-way traffic. The existing multipurpose trail that runs parallel to the entry road would remain. The entry road comes to a “T” intersection. To the west, the southern boat ramp parking lot would be altered to include a turnaround area for boat trailers. The parking and turnaround areas would include 24 parking spaces plus an additional four parallel parking spaces large enough for vehicles with trailers.

A primary river access area for visitors on foot would be constructed to the east of the US 41 southbound entry road, under the Cobb Parkway / US 41 overpass (figure 4). The river access would be composed of large, wide concrete or stone “steps” that descend into the river. These “steps” would continue to serve as riprap while also providing use as a river amphitheater seating area. The steps would be accessed via the multiuse trail, which would be relocated to the southeast side of the entrance road.

The US 41 southbound entrance road would follow a similar alignment of the existing road under the bridge, and 15 parallel parking spaces would be added north of the bridge; however, the current road along the east side of the current parking lot would be converted to a hard-surface multiuse trail (figure 4). The two entry roads (from north and southbound US 41) would

meet at a “T” intersection, and one two-way road would proceed into Paces Mill. The existing bioswales in the area between US 41 and the entrance roads would be redesigned to be more functional and aesthetically pleasing. A bioswale is a natural landscape alternative to concrete gutters and storm sewers, using vegetated low-lying areas or troughs where plant material and specialized soils combine to treat, absorb, and convey stormwater runoff. Two new crosswalks would be installed at the “T” intersection. A new bioswale would be located northwest of the “T” intersection and would filter stormwater from the palisade (cliff).

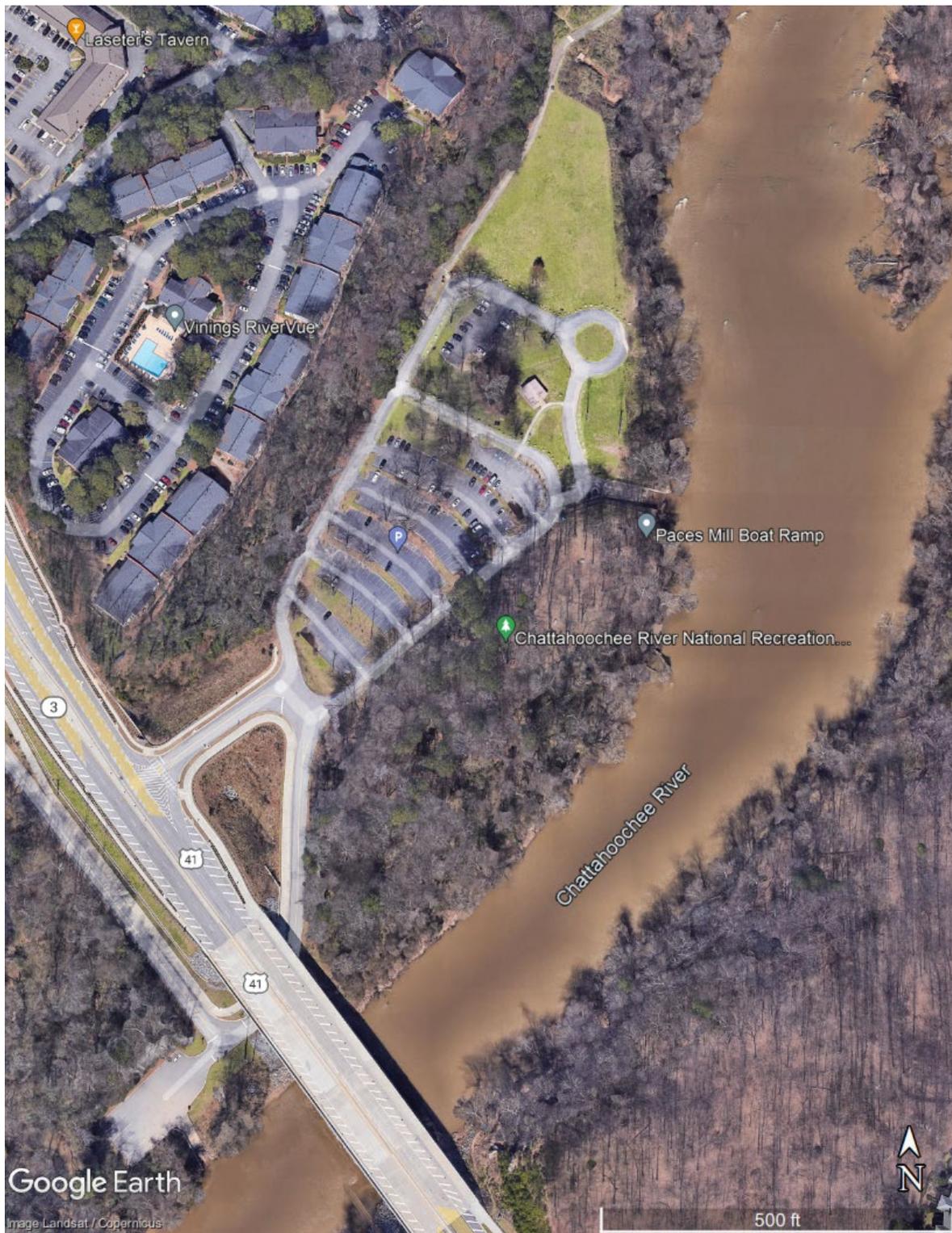
To create a more desirable NPS arrival experience, the parking lot would be moved to the northern end of the site (figure 4). The existing parking lot would be replaced with a meadow consisting of native endemic prairie vegetation, and the new entrance road and parallel multiuse trail would wrap around it. The entrance road would have a timber guardrail on either side to prevent vehicles from parking along the roadside. The entrance road would curve eastward and eventually align with the existing north boat ramp. There would be multiuse trails running parallel on both sides of the entrance road. The existing bike share station would be relocated to the intersection of the entrance road and the west parking lot entrance, near its current location at the Bob Callan trailhead. A “jug handle” loop would be to the south of the road, allowing spaces for vehicles to turn around and provide pull-through parking for vehicles with trailers. The entrances of the jug handle loop would align with the entrances of the new parking lot. The new parking lot would be shaped like an elongated “U” and would have approximately 176 parking spaces. A multiuse trail would run parallel around the parking lot. A river overlook would be located on the eastern edge of the parking lot and connected to it via a hard-surface trail. The outer edge of the parking lot would have a curb with curb cuts to allow stormwater sheet flow into either the adjacent swale or the central bioswales. Stormwater would be naturally filtered through the two central bioswales before being piped to river rock riprap in the river.

A new visitor contact station would be constructed in the middle of the open end of the parking lot (figure 4). The visitor contact station would be unmanned and is to be composed of three structures. It would incorporate two buildings with single-user restrooms/changing rooms and a central open-air pavilion (figures 5 and 6). A curvilinear multiuse trail would lead north from the visitor contact station, bisect the bioswales, and connect to the existing Bob Callan Trail. The curvilinear trail would be tree-lined (except within the 150-foot-wide Georgia Power easement) and would have bump-outs to accommodate benches along the trail (figure 4).

A dumpster pad and dumpster would be located at the intersection of the boat ramp and east parking lot entrance (figure 4). A crosswalk would be installed across the boat ramp to connect the multiuse trails. Directly south of the boat ramp, the existing boardwalk would be enhanced to incorporate a shade structure and gathering area.

The meadow south of the visitor contact station would consist of native wildflowers and native grasses (figure 4). A multiuse trail would run along the southeastern edge of the meadow, connecting the boat ramp to the river amphitheater seating area. The wooded area southeast of the multiuse trail would remain and additional picnic tables would be added to the existing picnic area. A natural-surface trail would meander through the woods and include a short trail to a river overlook. Minimal and selective tree removal would take place to accommodate the natural-surface trail and river overlook.

FIGURE 3. AERIAL PHOTOGRAPH OF EXISTING CONDITIONS AT PACES MILL (NO-ACTION ALTERNATIVE)



Proposed changes to the site are described and compared to the no-action alternative in table 3 and depicted on figures 4, 5, 6, 7, and 8. Additional detail is included in appendix H. During construction, staging and work would be phased to keep river access open. The unit would be impacted by construction activity and not have available parking, but a boat ramp would remain open for emergency response. Construction is expected to last 8 to 11 months. One boat ramp would remain open for emergency and search and rescue access throughout the duration of the project.

Stipulations and Best Management Practices

The following mitigation measures have been identified to minimize the degree, extent, and/or severity of potential adverse effects and would be implemented during the project.

General Construction Best Management Practices. The following BMPs would be implemented:

- Ground disturbance, staging, and stockpiling areas would be located in parking areas or in previously disturbed sites within the project footprint to the greatest extent possible. All staging and stockpiling areas would be returned to preconstruction conditions.
- Construction zones would be identified and fenced with construction tape, silt fencing, or some similar material prior to any construction activity. Fencing would define the construction zone and confine activity to the minimum area required for construction. All protection measures would be clearly stated in the construction specifications and workers would be instructed to avoid conducting activities beyond the construction zone as defined by construction zone fencing.
- The NPS project manager would be responsible for ensuring the project remains within the construction area limits.
- Fugitive dust generated by construction would be controlled by water spraying at the construction site, if necessary. Any water used for dust control would be taken from hydrants in park administrative areas or a local source approved by the National Recreation Area.
- Equipment would be cleaned before coming on-site.
- To minimize possible petrochemical leaks from construction equipment, the contractor would regularly monitor and check construction equipment to identify and repair any leaks. A spill kit would be kept on-site at all times.
- Fuel would be stored in fuel trucks or aboveground storage tanks, and all fuel storage would be in staging areas. NPS-approved containment BMPs would be established in case of a spill.
- Tools, equipment, barricades, signs, demolition debris, and rubbish would be removed from the project work limits upon project completion.

Soils. The following measures would be implemented:

- Topsoil conservation measures would be employed. Topsoil would be stripped and replaced wherever possible to enhance revegetation following the construction phase.

- Disturbed soils are more susceptible to erosion and until revegetation takes place, standard erosion control measures such as silt fences and/or sandbags shall be used to minimize any potential soil erosion.
- Soils beneath the existing parking lot would be remediated prior to the area's conversion to a meadow as described in the prairie restoration plan (appendix H).

Vegetation. The following measures would be implemented:

- Disturbance to existing vegetation would be avoided to the greatest extent possible.
- During construction, a temporary construction limit fence would be placed within the project footprint to protect native vegetation.
- Vehicles, equipment, and storage and staging for materials would occur within the project footprint.
- Equipment used would be cleaned prior to arrival on-site to reduce the introduction of nonnative plant species.
- All equipment and materials would be staged on hardened surfaces, such as roadways and parking areas, to avoid damage to vegetation.
- Native plant species would be planted in the meadow in greater numbers than those removed in reconfiguring the unit.

Wildlife Including Threatened and Endangered Species. The following measures would be implemented:

- To reduce effects to migratory birds during nesting season, tree, shrub, and grass removal activities would be avoided from March 1 to August 15, to the extent practicable. If tree, shrub, and grass removal would occur within the specified dates, an NPS biologist would be contacted to schedule a survey of the project site prior to tree removal.
- An NPS biologist would survey the proposed natural-surface trail for Michaux's sumac prior to any vegetation removal.
- All construction activities would cease if a threatened or endangered species were discovered in the project area while park staff re-evaluates the situation. This would allow modification of the project for any protection measures determined necessary to protect the species.

Soundscapes and Air Quality. The following measures would be implemented:

- Construction activity would only be permitted during daylight hours to minimize noise impacts to residential neighbors.
- To reduce noise and emissions, construction equipment would not be permitted to idle for more than 10 minutes while not in use based on 36 *Code of Federal Regulations* (CFR) § 5.13 Nuisances.
- Appropriate dust mitigation suppression controls, such as water spraying soils at the construction site and covering loaded trucks, would be implemented if needed.

Cultural Resources. The following measures would be implemented:

- If previously unknown archeological or paleontological resources are discovered during construction, the superintendent would be notified, and all work in the immediate vicinity (200 feet) of the discovery would be halted until the resources are assessed by an archeologist meeting NPS Professional Qualifications Standards or the Secretary of the Interior’s Professional Qualifications Standards.
- In the unlikely event human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 and NPS Director’s Order 28: *Cultural Resource Management* would be followed.
- The National Park Service would ensure that all contractors and subcontractors would be informed of the penalties for illegally collecting artifacts or intentionally damaging archeological sites or historic properties. Contractors and subcontractors would also be instructed on procedures to follow should previously unknown archeological resources be uncovered during construction.

Visitor Use and Experience. The following measure would be implemented:

- Existing vegetation and natural topography would be preserved as much as possible to screen new infrastructure from view.

ALTERNATIVES COMPARISON

Each element of the preferred alternative is described below and compared to the no-action alternative. Elements of the preferred alternative can be seen on figures 4, 5, 6, 7, and 8, and in appendix H. The no-action alternative is depicted on figure 3.

TABLE 3. ALTERNATIVES COMPARISON

Elements	No-Action (figure 3)	Preferred Alternative (figures 4, 5, 6, 7, and 8)
Parking and Roads	Parking and roads would remain in their current configuration. There are currently approximately 243 designated parking spaces. The mowed grassy area at the far north end of Paces Mill would remain as is.	<p>To create a more desirable NPS experience, the current primary parking area would be removed and restored to a meadow consisting of native endemic prairie plant species as described below. A new parking area would be constructed farther north that would replace much of the area where the mowed grass field is currently located. The parking area would be sited to minimize the potential for vehicles to block traffic near the boat launch, would include a designated dropoff and pickup area, and trailer parking. Parking would consist of a two-way elongated “U” with approximately 176 perpendicular parking spaces. The total area encompassed by the parking lot would be similar to the current parking lot, but the paved area would be less than half due to the configuration and the impervious surfaces within the oval.</p> <p>Thirty parking spaces would be added to the site west of the entry road accessed from US 41 southbound. Twenty-four spaces would be added adjacent to the southern boat ramp. Fifteen parallel parking spaces would be added along the road connecting the west and east sides of the Paces Mill unit. The total number of parking spaces at Paces Mill</p>

Elements	No-Action (figure 3)	Preferred Alternative (figures 4, 5, 6, 7, and 8)
		would remain the same at approximately 243. Speed tables (long, flat-topped speed bumps), crosswalks, and shade trees (only where outside of the 150-foot-wide Georgia Power easements) would be added to the road. All roads in Paces Mill would accommodate two-way traffic. Road and parking lot surfaces would be asphalt with concrete curbs. Wood guardrails would be installed adjacent to roads to prevent parking outside designated parking spaces.
Vendor Pickup Area / South Boat Ramp	No changes would be made to existing management or configuration.	The layout of this area would be changed to add an oval turnaround loop for boat trailers and 24 parking spaces. This existing ramp is steep, the water is deeper and swifter, which allows motorized access, although the steepness of the ramp is not ideal for trailers. The area would have pull-through trailer parking for loading/offloading. Note: the northern boat ramp does not currently provide motorized access because the water is too shallow and would remain so. Access to boat ramps would be demarcated during construction.
Visitor Contact Station	The existing restroom would remain. No improvements would be made to the facility.	The current restroom would be removed and a new visitor contact station constructed in the middle of the open end of the parking lot, near the current location. Materials and drainage systems that minimize damage if flooded would be included. The new contact station would consist of three structures and would be connected to the same water, sewer, and electric utilities currently on-site. The front (southwest) building would be a pavilion/shade structure. A fee station would be moved from its current location to the hard-surface trail connecting the parking lot with the visitor contact station and interpretive and regulation signage. The northern two structures would consist of single-user restrooms/changing rooms. The buildings would include wood and stone construction and be more typical of NPS visitor use buildings. Locally sourced wood and stone would be used for the buildings and walkways to the extent possible. The buildings would optimize energy performance by including a glass pane above the door to minimize the need for lighting. A single LED light fixture would be in each restroom. The visitor contact station would be open and not include heating or air-conditioning. The facility would be Architectural Barriers Act (ABA) compliant and accessible to people with disabilities. Existing trees would be retained to the extent practicable.
Meadow with Native Endemic Prairie Plant Species	The existing grassy area and parking lot would remain in place. Mowing and trimming operations would continue in a similar fashion and frequency. The current parking lot has approximately 243 parking spaces.	The current parking area would be demolished and restored to an approximately 1.5-acre piedmont meadow, planted with native, endemic, non-woody, prairie wildflowers, forbs, and grasses. The plantings would include species found in a prairie remnant along adjacent US 41, including Georgia aster (<i>Symphotrichum georgianum</i>), a state threatened species. Plantings would include seeds, plugs, and plants. The minimum number of plantings, including Georgia aster, would exceed the number of existing native wildflowers in the parking lot islands. Vegetation would average approximately 3 feet high in late summer. A multiuse trail would flank three of its four sides. Existing trees would be retained to the extent practicable. The area would be fenced with wooden split rail fence to establish the meadow and create a designated and interpreted space at Paces Mill. The site would be maintained as an early successional piedmont prairie with scheduled mowing. Moveable trails would be mowed through the meadow. The prairie vegetation would take 1 to 3 years to become established, and it would be watered for 2 to 3 years. Details of the restoration process, including a plant species list, can be found in appendix H.

Elements	No-Action (figure 3)	Preferred Alternative (figures 4, 5, 6, 7, and 8)
New Natural Surface Trail	No new natural trails would be created.	A new natural surface, single track pedestrian-only trail (type 1 in Trails Management Plan [NPS 2022b]) would be created in the wooded section, between the picnic area and the river amphitheater. It would be approximately 2 to 4 feet wide and 800 feet long. The trail would be set back from the river at least 50 feet, in compliance with the Metropolitan River Protection Act. Trail construction would limit vegetation clearing (maximum of approximately 0.3 acre). The trail would be aligned to avoid the need to remove larger trees to the extent practicable. This would likely include using existing social trails along the river as part of the alignment. Remaining social trails would be closed to the extent possible via signage and barriers. The trail would also include access to an elevated river overlook described below. The trail would be maintained minimally including clearing fallen trees, trimming branches and brush, and repairing soil erosion as needed.
Southern Elevated River Overlook	No elevated river overlook would be constructed. Cleared areas from social trailing would continue to be used.	An elevated river overlook would be constructed and consist of a wood platform on the top of the bank, which would not overhang the river. The overlook would be located where people have already created social trails. The site would offer good views of the river while tree/vegetation clearing would be kept to a minimum. This area is densely populated with nonnative species so most vegetation removed would be exotics. The overlook would be accessed via the new natural surface trail described above.
Hard-Surface, Multiuse Sidewalks	No new hard-surface multiuse sidewalks would be created. The existing hard-surface sidewalks connecting to US 41 would remain, as would sidewalks along US 41.	A 10-foot-wide, multiuse, universally accessible, hard-surface sidewalk would encircle the interior of the site, providing visitors an easy way to navigate the site and to recreate at Paces Mill (walk, jog, bike, etc.). Interior multiuse sidewalks would connect visitors to the Bob Callan Trail on the north, and US 41 sidewalks.
River Amphitheater Seating Area and River Access	No river amphitheater would be constructed. The area would remain as stone riprap.	The existing riprap on the riverbank, underneath the bridge, would be converted to a river amphitheater seating area and river access point. This area would be reconfigured using large, wide, concrete steps that descend into the river. The area would be accessed using the hard-surfaced sidewalk on the southeast side of the southbound US 41 access road. The park would coordinate this project component with the Georgia Department of Transportation (GDOT), which owns the land under the bridge.
Northern Elevated River Overlook	No river overlook would be constructed. The large sign alerting river users of the upcoming take-out point would remain.	A wood platform river overlook would be developed near the large river take-out sign's current location (this sign would remain for safety reasons). The platform would be sited on top of the riverbank and would not overhang the river. The proposed site is in an open area and very little, if any, vegetation removal would be necessary to construct it. A hard-surface sidewalk would connect it to the sidewalk encircling the parking area.
Picnic Area	The picnic area would remain in its current location. No new tables would be added.	The picnic area would remain in its current location. Several picnic tables would be replaced. One additional table would be added for a total of nine.

Elements	No-Action (figure 3)	Preferred Alternative (figures 4, 5, 6, 7, and 8)
Shade Structure / Gathering Area	No shade structure would be constructed. The existing deck would remain.	The existing deck, which is between the picnic area and the limited river access area, would be demolished, rebuilt in its current location on the existing piers, and expanded. A shade structure would be added.
North Boat Ramp	Existing boat ramp and boulders would remain.	Existing boulders, blocking vehicle access to the river, would be removed and replaced with a combination of fixed and removable bollards (short posts used to block vehicle access).
Bike Share	The existing bike share would remain in its current location.	The existing bike share would be retained, but moved a short distance to the southwest corner of the new parking lot.
Dumpster Pad	The trash facilities would remain in the current condition and location at the top of the north boat ramp.	A dumpster pad and dumpsters would be installed at the intersection of the boat ramp and east parking lot entrance. The dumpster would be shielded from view with a low granite wall and landscaping.
Signage	The existing signs would remain. No new signs would be installed.	Most existing signage would be removed and replaced with as few signs as possible while still meeting site needs. New signage would address vehicular flow, parking requirements, allowed uses, interpretation, etc. Most of the signage would be in the pavilion at the visitor contact station, and would include allowed uses and rules, including but not limited to, those associated with vehicle parking, boating, dogs, hours, fees, and fires. Waysides (interpretive signs) interpreting the meadow would be added.
Utilities	All existing utilities would remain in their current location (connecting to the restrooms) and condition.	Power, water, sanitary sewer, and telecommunication utilities are all currently within 75 to 100 feet of the proposed visitor contact station and would be connected to the new facilities.
Site Grading and Storm Drainage	No site grading or storm drainage improvements would be made.	Most site grading would be for the new parking lot and around the visitor contact station. The finished grade would be similar or slightly below the current grade. Five bioswales would be constructed: two along the entrance roads, two within the northern parking lot, and one within the southern parking lot. They would contain moderate slopes on both sides with a gently sloped bottom. The bioswales would be planted in three zones: dry, mesic (moderate moisture), and wet/moist from top to bottom. Several species with the corresponding moisture tolerances would be planted in each zone. A rocky bottom stream channel would be located at the lowest elevation. The parking lots would be pitched to drain into the bioswales. An outlet structure would be constructed in the bioswale areas and approximately 400 feet of 18-inch, reinforced concrete pipe would be installed between the bioswales and the river, where water would enter the river through river rock riprap. Additionally, the existing storm drains in the bioswale area, adjacent and south of the northbound US 41 entrance would be reworked to accommodate the new bioswale design. Another outlet and approximately 100 feet of 18-inch, reinforced concrete pipe would be installed here to drain into the river, also through river rock riprap at the river. See appendix H for details.

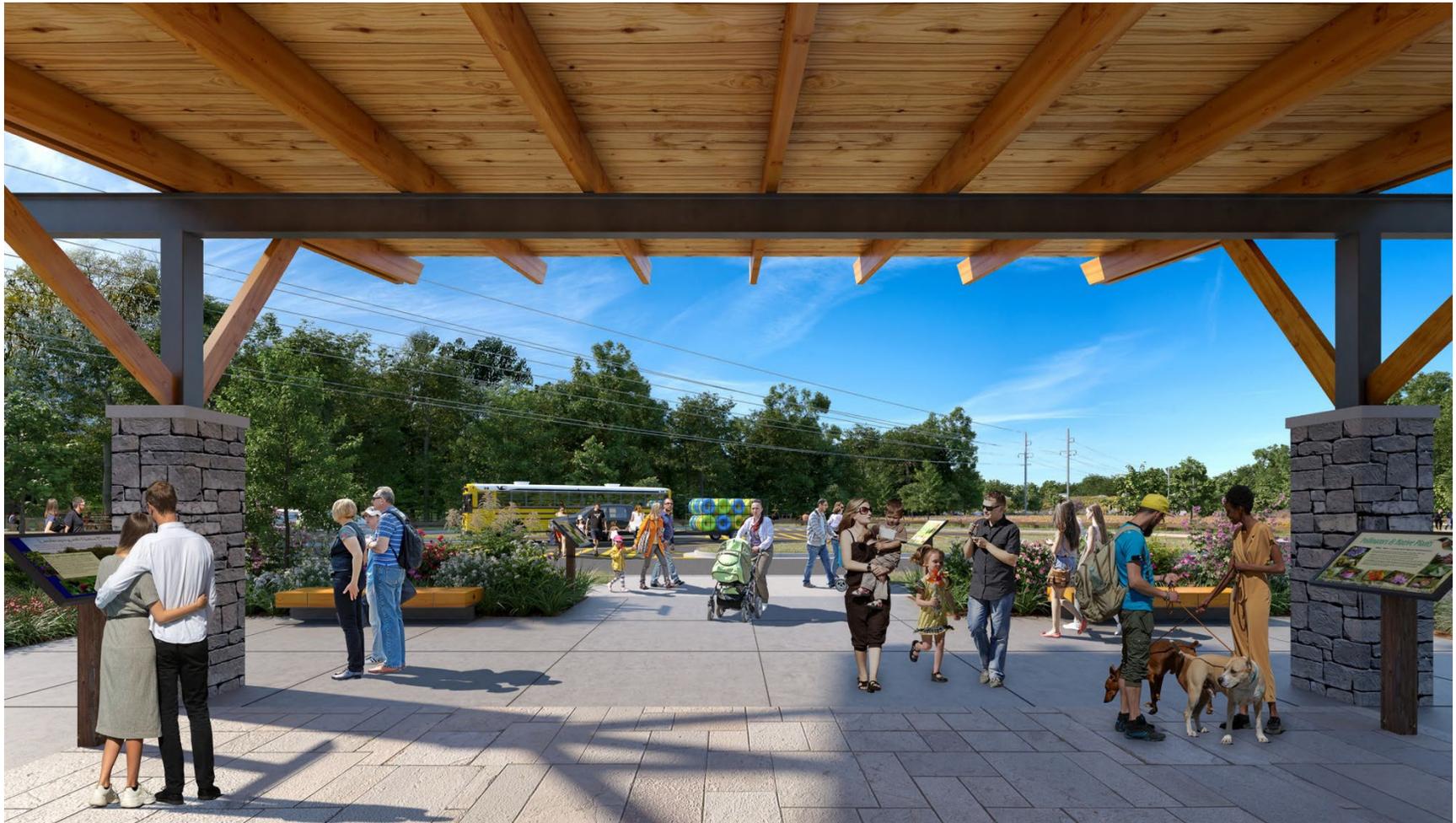
FIGURE 5. PREFERRED ALTERNATIVE – VISUAL SIMULATION OVERVIEW (1 OF 2)



FIGURE 6. PREFERRED ALTERNATIVE – VISUAL SIMULATION OVERVIEW (2 OF 2)



FIGURE 7. PREFERRED ALTERNATIVE – VISUAL SIMULATION OF CONTACT STATION



ALTERNATIVES CONSIDERED BUT DISMISSED

Alternatives that were considered, but ultimately dismissed from further analysis, were dismissed for one or more of the following reasons:

- They are technically or economically infeasible.
- They do not resolve the purpose and need for taking action.
- They are duplicative of other less environmentally damaging or expensive alternatives.
- They conflict with a previously approved plan.
- They are beyond the scope of this environmental assessment.

These alternatives are described in table 4.

TABLE 4. ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER REVIEW

Alternatives or Elements Considered	Reason for Dismissal
Parking lot, restroom/changing facility, visitor contact station configurations	A variety of variations on the loop parking lot design, and the location and layout of the restroom/changing facility and visitor contact station were considered. Concepts were refined for optimal vehicular traffic and pedestrian flow, parking configurations, safety, aesthetics, stormwater runoff, and utilities feasibility. Dismissed designs were duplicative of other less environmentally damaging or less expensive designs that were retained.
Decreased number of parking spaces	A variety of parking configurations were considered including ones that would result in fewer parking spaces. Designs with fewer parking spaces were dismissed because all of the current parking spaces are used on busy weekend days. Decreasing the available parking would result in worsening the current vehicular circulation problems as the number of vehicles circulating the site without finding a parking space would increase. Failing to improve traffic circulation would fail to meet the purpose and need for action.
Pedestrian bridge across river	Pedestrians are already able to easily and safely cross the river using the sidewalk on the north side of US 41 (Mountain to River Trail), making it duplicative with an existing crossing. Moreover, construction of such a bridge would require ground disturbance and would adversely impact river viewsheds and natural scenic quality from within the National Recreation Area, residences on the east side of the river, and for traffic along US 41. Such options would be more environmentally damaging than the preferred alternative.
Cantilevered river overlook	A cantilevered overlook would be expensive to construct. This option posed concerns about getting the requisite permits and environmental effects given the amount of engineering necessary to ensure visitor safety. In addition, its construction would likely detract from views of the river from other existing or planned viewing locations. Moreover, because there are already river viewing locations (near the large "take-out" sign and just south of the north boat ramp), and two less expensive, much less impactful viewing nodes being proposed, this alternative element was deemed to be duplicative with other less expensive options with fewer adverse environmental effects.

Alternatives or Elements Considered	Reason for Dismissal
Hard-surface trail along and across Stillhouse Creek	This trail concept presented concerns about washout, erosion, and visitor safety, as well as logistical challenges. In addition, this element was being considered in the context of a connection point to the larger, regional trail system, something that does not resolve the purpose and need to a large degree and is generally beyond the scope of this NEPA review.

CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the affected environment (existing conditions or baseline conditions) and analyzes the potential environmental consequences (effects or impacts) that would occur as a result of implementing either alternative.

METHODOLOGIES IN DETERMINING EFFECTS

The National Park Service based the impact analyses and conclusions on the review of existing literature, National Recreation Area studies, information provided by experts in the National Recreation Area and other NPS personnel, other agencies, professional judgment, and public input.

National Environmental Policy Act reviews must take a “hard look” at impacts that alternatives under consideration would have on the human environment if implemented. This means considering how the condition of a resource would change, either negatively or positively, as a result of implementing each alternative under consideration. The analysis is to be focused on significant issues or those retained for detailed analysis.

The Council on Environmental Quality defines effects or impacts as, “. . .changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives, including those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or farther removed in distance from the proposed action or alternatives.”

CEQ regulations (2021) that implement the National Environmental Policy Act require that in considering the degree of effects the following should be considered:

- both short- and long-term effects
- both beneficial and adverse effects
- effects on public health and safety
- effects that would violate federal, state, tribal, or local law protecting the environment (40 CFR 1508.7).

Where appropriate, mitigating measures for adverse effects are also described and incorporated into the evaluation of effects.

FLOODPLAINS

Affected Environment

Elevations at Paces Mill range from 750 feet above sea level at the river to approximately 775 feet across most of the site, which is generally level above the banks of the river. The site is bordered to the west by a palisade (steep uphill slope). The entire site is in the 100-year floodplain and Federal Emergency Management Agency (FEMA) Zones AE and A (FEMA 2019) (figure 9). A 100-year floodplain or 100-year flood describes an area or event subject to a 1% probability of a

FIGURE 10. 100-YEAR FLOODING EVENT AT PACES MILL ON SEPTEMBER 22, 2009



Rivers throughout the United States have reduced floodplains due to infrastructure, agriculture, and landscaping that adversely impacted size, flood retention capacity, and ecological functions, representing a long-term reduction in floodplain size. The rate of adding new adverse impacts to floodplains, such as reducing the size, has been trending downward in recent decades through federal, state, and local laws and guidance. Much of the Chattahoochee River floodplain is still intact, partially due to the presence of the National Recreation Area, local parks, and the Metropolitan River Protection Act. Floodplain function and size have been reduced in areas, especially in the Atlanta metropolitan area, due to past commercial and residential development, agriculture, and transportation infrastructure. The US 41 bridge replacement had little if any impact on flood retention.

Effects of Alternative A: No Action

There would be no rehabilitation undertaken under alternative A. The current design and infrastructure would continue and the entirety of Paces Mill would remain in the floodplain into the future. Water pooling in parking lots after flooding would continue. No new floodplain development would occur. The risk of flooding would remain similar to current conditions. Floodplain storage quantity would remain the same. Natural resources, such as the woodlands bordering the river, would remain in similar condition and quantity.

Because Paces Mill is almost entirely within the 100-year floodplain and its purpose is river access, flooding, which is a natural process, is to be expected under any scenario. Flooding would primarily have adverse impacts at Paces Mill during major flooding events where water inundates parking, roads, the restrooms, and damages infrastructure. The improvements to water drainage features and flood resiliency at Paces Mill, under the preferred alternative, would not be realized.

Effects of Alternative B: Preferred Alternative

Nearly all of Paces Mill is within the 100-year floodplain. The purpose of Paces Mill and its existing functions are river access. Therefore, functions cannot be moved to another location. The risk of flooding would remain similar to current conditions. The preferred alternative does not include any changes that would reduce flood storage capacity. Although the total impervious area would be similar to current conditions, the design of the parking lot, drainage system, including bioswales, as described in table 3, have features designed to improve drainage patterns, which would contribute to flooding subsidence when it occurs. Floodwaters temporarily stored on-site would be more likely to occur in landscaped and natural areas rather than in the parking lot. The visitor contact station, including restrooms, would be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 CFR Part 60). Natural resources such as the woodlands bordering the river would remain in similar condition and quantity. Riprap installed at drainage outfalls to the river would minimize the potential for bank cut and erosion.

No adverse impacts on floodplains are expected from implementing the preferred alternative. Because Paces Mill is almost entirely within the 100-year floodplain and its purpose is river access, flooding, which is a natural process, is to be expected under any scenario. Flooding would primarily have adverse impacts at Paces Mill during major flooding events where water inundates parking, roads, and the restrooms, and damages infrastructure. Small beneficial effects are expected from the new design elements, which would reduce water pooling on hard-surface parking lots after flooding, facilitate water drainage through bioswales to the river. Infrastructure, such as the new visitor contact station, would likely be more resistant to flood damage.

In summary, the preferred alternative would not reduce flood storage capacity or have any other adverse effects on floodplains. There would be no adverse contribution to the condition of the Chattahoochee River floodplain. Improvements to floodplain drainage patterns and flood resilient infrastructure, with the preferred alternative at Paces Mill, would include a small beneficial contribution to flood resiliency in the river floodplain.

VEGETATION

Affected Environment

The vegetation at Paces Mill includes mixed hardwood/pine woodlands to the southwest of Cobb Parkway and approximately the southeastern half of the property east of the parkway, along the river, as well as adjacent to the steep slope along the western boundary of the site (figures 2 and 3). A mowed grassy area is located in the northern portion of Paces Mill. The Atlanta Botanical Garden landscaped the parking lot islands with a variety of flowering native plants with a Five Star Grant in 2012. The Georgia Botanical Society maintained a small pollinator garden of rescued plants near the restroom. Species present or previously present are described below.

US 41 was recently widened from Northgate Drive to Paces Mill Road, and the single deck bridge structure over the Chattahoochee River was replaced with a two-deck bridge structure adjacent to Paces Mill. This project included construction of the concrete trail on the east side of the roadway, which is now part of the Mountain to River Trail. This work, completed in 2017,

also included upgrades to the water detention area east of the highway. The GDOT right-of-way extends east of the highway to Paces Mill. Approximately two acres of NPS land was impacted, on both the north and south sides of US 41. Mitigation measures included a landscape plan. These roadway improvements, including the mitigation measures, have ongoing effects on vegetation at Paces Mill. Remnant prairie plant species were transplanted to the parking lot island prior to this construction project. Erosion control grasses are planted alongside the parkway and entrance roads.

Both the north and south sides of US 41, and the parking lot islands are mowed and trimmed a minimum of twice a month from April 1 to September 30 and once a month from October 1 to March 31. Trimming and weeding around buildings, signage, trash receptacles, rocks, fee stations, kiosks, and utilities is completed on the same schedule. Dead leaves and other natural debris are blown from paved areas onto parking lot islands for mulch. Herbicides and pesticides are generally not used. Contracted maintenance services must contact the National Park Service for approval prior to any use of herbicides or pesticides. These mowing practices were implemented by CCID for aesthetic reasons (NPS 2022c). Maintaining the prairie species in the islands has not been a priority, and thus their condition has deteriorated substantially. Many of the species planted are no longer present.

Reasonably foreseeable future projects that could affect vegetation in the Pallasades unit include trail construction such as the potential Stilhouse Trail, Bob Callahan Trail trailhead and parking, and Akers Mill Central Trail improvements. The National Recreation Area is currently developing a Comprehensive Trails Management Plan (NPS 2022b), likely to be finalized in 2022. Adverse impacts to vegetation from constructing trails includes removal of relatively small quantities of vegetation to create or formalize the trails and potential for visitors to trample vegetation if they stray off trails. All projects are subject to NPS construction BMPs, mitigation measures, and design guidelines, planned and implemented in compliance with NEPA and the new trails plan.

Additional planned projects that could affect vegetation in and near Paces Mill include a Cobb County sewerline crossing NPS lands at Rottenwood Creek and a cell phone tower in the Rottenwood Creek corridor between NPS lands and Cumberland Boulevard. These projects are subject to NPS construction BMPs, mitigation measures, and design guidelines, planned and implemented in compliance with NEPA.

Woodlands. A tree survey has not been conducted at Paces Mill. Tulip tree (*Liriodendron tulipifera*), loblolly pine (*Pinus taeda*), and sugar maple (*Acer saccharum*) were documented during the wetland delineation survey for this project (Aarcher 2018). Other trees likely present, which are abundant in the National Recreation Area, include several maple species (*Acer* spp.), several oak species (*Quercus* spp.), American beech (*Fagus grandifolia*), green ash (*Fraxinus pennsylvanica*), and sweetgum (*Liquidambar styraciflua*). The understory vegetation in the wooded areas include giant cane (*Arundinaria gigantea*), cross vine (*Bignonia capreolata*), Carolina jasmine (*Gelsemium sempervirens*), privet (*Ligustrum* sp.), Japanese honeysuckle (*Lonicera japonica*), and sawbriar (*Smilax bona-nox*) (Aarcher 2018, Patrick 2009, Read 2012, Donohue 2013, Mills 2015, NPS 2019a).

Parking Lot Islands. Endemic prairie plant species previously planted in the parking lot islands include annual ragweed (*Ambrosia artemisiifolia*), pale Indian plantain (*Arnoglossum atriplicifolium*), partridge pea (*Chamaecrista fasciculata*), greater tickseed (*Coreopsis major*), sneezeweed (*Helenium amarum*), hairy sunflower (*Helianthus hirsutus*), yellow wood sorrel

(*Oxalis floridana*), Small's ragwort (*Packera anonyma*), hoary mountain mint (*Pycnanthemum incanum*), Small's penstemon (*Penstemon aff. smallii*), starry campion (*Silene stellata*), tall goldenrod (*Solidago altissima*), wrinkleleaf goldenrod (*S. rugosa*), Georgia aster (*Symphyotrichum georgianum*), spiderwort (*Tradescantia* sp.), blue curls (*Trichostema dichotoma*), and yellow crownbeard (*Verbesina occidentalis*) (Patrick 2009, Read 2012, Donohue 2013, Mills 2015, NPS 2019a).

Several other species were also planted including wild ginger (*Asarum canadense*), American beautyberry (*Callicarpa americana*), river oats (*Chasmanthium latifolium*), longleaf woodoats (*Chasmanthium sessiliflorum*), sweet pepperbush (*Clethra alnifolia*), smooth hydrangea (*Hydrangea arborescens*), possumhaw (*Ilex decidua*), ink berry (*Ilex glabra*), yaupon (*I. vomitoria*), sweetspire (*Itea virginica*), Allegheny spurge (*Pachysandra procumbens*), panicgrass (*Panicum* sp.), cinnamon fern (*Osmunda cinnamomeum*, l. *glabra*), royal fern (*O. regalis*), Christmas fern (*Polystichum acrostichoides*), fragrant sumac (*Rhus aromatic*), *Vaccinium* sp., and sparkleberry (*V. arboretum*) (NPS 2019a). Many of these species are no longer present. The parking lot also includes several medium to large river birch trees (*Betula nigra*) outside the Georgia Power right-of-way.

Pollinator Garden. Species in the pollinator garden included swamp milkweed (*Asclepias incarnata*), butterfly weed (*A. tuberosa*), bluestar (*Amsonia tabernaemontana*), red columbine (*Aquilegia canadensis*), lanceleaf coreopsis (*Coreopsis lanceolata*), tall coreopsis (*C. tripteris*), threadleaf coreopsis (*C. verticillata*), white wood aster (*Eurybia divaricata*), swamp sunflower (*Helianthus angustifolia*), cardinal flower (*Lobelia cardinalis*), bee balm (*Monarda* sp.), woodland phlox (*Phlox divaricata*), black-eyed Susan (*Rudbeckia fulgida* and *R. hirta*), shiny coneflower (*R. nitida*), green-headed coneflower (*R. laciniata*), salvia (*Salvia* spp.), blue-eyed grass (*Sisyrinchium angustifolium*), goldenrod (*Solidago* sp.), Georgia aster, blue wood aster (*Symphyotrichum cordifolium*), white heath aster (*S. ericoides*), smooth blue aster (*S. laeve*), New England aster (*S. novae-angliae*), aromatic aster (*S. oblongifolium*), and late purple aster (*S. patens*) (Patrick 2009, Read 2012, Donohue 2013, Mills 2015, NPS 2019a). Many of these species are no longer present.

Invasive Nonnative Species. Invasive nonnative plant species found at Paces Mill include, but are not limited to, Oriental bittersweet (*Celastrus orbiculatus*), Sericea lespedeza (*Lespedeza cuneata*), privet, Japanese honeysuckle, and bigleaf periwinkle (*Vinca major*) (Patrick 2009, Read 2012, Donohue 2013, Mills 2015, NPS 2019a).

Effects of Alternative A: No Action

There would be no rehabilitation of Paces Mill under alternative A. Therefore, existing conditions would continue into the future with potential for the condition of the vegetation on-site to deteriorate due to increasing numbers of visitors without improvement to infrastructure to protect natural resources. Mowing areas that had been previously planted with native prairie species would continue. The benefits of creating a meadow with native endemic prairie species would not be realized. The invasive plants present at Paces Mill would continue to exist.

Effects of Alternative B: Preferred Alternative

Natural-surface trail construction through wooded areas would result in a small quantity of vegetation removal, primarily in the form of clearing underbrush. The trail would be

approximately 800 feet long and the width of clearing would be minimized to align with developing trail standards (approximately 0.3 acre). The natural-surface trail itself would generally not exceed approximately 4 feet in width (approximately 0.1 acre). Removal of large trees would be avoided to the extent practicable by siting the trail around large trees. It is anticipated that a small number of large trees may need to be removed. Once the trails are completed and used by visitors, the remaining social trails through the wooded area along the river would receive less use due to signage, barriers, and ease of using designated trails. Vegetation would likely grow back in those areas, so that there may not be any net vegetation loss in the long term. Multiuse sidewalks circling the interior of Paces Mill would generally be positioned where there is already development. A small number of trees may need to be removed in the vicinity of the current restroom.

Because invasive species tend to thrive and spread with soil disturbance there is short-term potential for these species to spread post-construction, especially where soil was disturbed. Potential invasive species include, but are not limited to, Oriental bittersweet, sericea lespedeza, privet, Japanese honeysuckle, bigleaf periwinkle, crabgrass (*Digitaria sanguinalis*), chickweed (*Stellaria media*), wild lettuce (*Lactuca virosa*), clover (*Trifolium* spp.), annual bluegrass (*Poa annua*), and yellow nutsedge (*Cyperus esculentus*). Potential adverse, short-term impacts would be reduced to minor with implementation of the mitigation measures for soils, vegetation, and construction equipment, as described in chapter 2.

The approximately 1.5-acre meadow would be planted with native prairie species and managed as a native prairie opening in the floodplain woodlands. These actions would increase the quantity of native vegetation at Paces Mill as the mown field it would replace is currently composed largely of nonnative grasses and weeds. Moving the portion of the site reserved for endemic prairie species and pollinator species from the parking lot islands and the pollinator garden to the meadow would result in a larger area (approximately double) of contiguous prairie vegetation rather than narrow strips of parking lot islands. Native plant species lost to maintenance and ultimately to the site reconfiguration in the parking lot islands and pollinator garden would be replaced in the meadow in larger quantities. The meadow would offer a place of solitude in an otherwise busy park unit. Waysides would educate and interpret the benefits of the prairie species and pollinators and other wildlife that they attract. The net increase in acreage with native species would benefit Paces Mill over the long term. Additional design and maintenance details are included in appendix H.

In summary, effects on vegetation from the preferred alternative are expected to be beneficial from the creation of the piedmont prairie meadow and elimination of the mowed field and parking lot islands. The benefits would be greater than the minor, temporary, adverse impacts from construction as described above. This would contribute a beneficial effect to vegetation trends in the National Recreation Area.

SPECIAL STATUS SPECIES – GEORGIA ASTER

Affected Environment

Georgia aster is a state threatened species (Chafin 2020b, NPS 2017). This species is a relic of upland-oak hickory-pine forests, and it requires natural disturbance to thrive, such as fire or grazing. Georgia aster currently occurs in small, isolated populations. Its population size has

been limited by human intervention such as fire suppression, pulling, mowing, and herbicide exposure.

Georgia aster had been present in the parking lot islands at Paces Mill as described above under “Vegetation.” However, they are no longer present due to frequent mowing. See “Vegetation” section above for past, present, and future projects that have contributed to the existing conditions of vegetation, including native prairie species such as Georgia aster at Paces Mill.

Effects of Alternative A: No Action

There would be no rehabilitation of Paces Mill under alternative A. Therefore, existing poor conditions would continue into the future with little potential for improvement and real potential for deterioration due to continued mowing of the parking islands, the numbers of visitors without improvement to infrastructure to protect the natural resources, and no native plant restoration as proposed in alternative B. The long-term net benefit to the species at Paces Mill that would likely occur under alternative B would not be realized.

Effects of Alternative B: Preferred Alternative

The National Recreation Area would plant Georgia aster and other native prairie wildflower species in the meadow area as part of an early successional piedmont prairie restoration, which would replace the existing parking lot. Georgia aster would be planted in larger numbers than were previously present in the parking lot islands. As described above under “Vegetation,” the meadow area would be larger, more contiguous, and better protected than the current parking island configuration. The total number of individual Georgia aster plants in a protected, fenced space would contribute to a better ecologically functioning endemic prairie. The involvement of partners, including the Cumberland CID, is a potential beneficial effect from the addition of funding, manpower, expertise, and public interest supplementing that of the National Park Service.

In summary, effects on Georgia aster from the preferred alternative are expected to be beneficial from the creation of the piedmont prairie meadow, which would include planting Georgia aster and lead to a long-term increase in the number of Georgia aster at Paces Mill. The benefits would be greater than the minor, temporary, adverse impacts from construction as described above under “Vegetation.” Therefore, the project would have a beneficial contribution to Georgia aster trends in the National Recreation Area.

VISITOR USE AND EXPERIENCE

Affected Environment

Hours of Operation. Paces Mill is currently open to visitors year-round during the day. It is closed every day from dusk to dawn.

NPS Identity. Vehicles entering Paces Mill from southbound US 41 encounter one NPS entrance sign at the top of the off-ramp and a large two-post wayfinding sign at the bottom. This sign denotes boat trailer parking to the right and Paces Mill parking to the left. Those entering Paces Mill from northbound US 41 also encounter an NPS entrance sign.

Just north of the parking lot is an entrance fee station kiosk and a restroom facility with separate entrances for men and women. This building was constructed in 1996 and is inadequate relative to the number of visitors. The northern boat ramp is situated just east of the restroom. Two blue dumpsters line the ramp with numerous additional trash/recycling receptacles at the top of the ramp. North of the restrooms is an open grassy area. The configuration, vegetation, and parking area do not convey the identity of national park facilities.

Recreational Uses. The Chattahoochee River National Recreation Area provides the largest single public greenspace in the metropolitan Atlanta region (approximately 20%) of the green space in the Atlanta metropolitan area, and Paces Mill is one of the primary green spaces in the Cumberland area, which includes the Cumberland CID boundary. It is a primary recreation destination in this part of the Atlanta metropolitan area—a place to recreate and enjoy views of the Chattahoochee River. There is a bike share station near the Bob Callan trailhead.

Paces Mill is primarily known as the last take-out point for recreational and commercial river users, which includes those in motorboats, kayaks, and float tubes, among others. Of the approximately 266,000 recreational visits in 2018, about 7,000 of those were clients of the Nantahala Outdoor Center, a concessioner (NPS 2019b). Some visitors walk along and view the river south of the northern boat ramp using social trails. Paces Mill is also a great access point to the Bob Callan Trail that can be used for walking, jogging, or riding bikes. Visitors use the grassy area for passive recreation.

Vehicular Circulation and Parking Capacity. Vehicles traveling southbound on US 41 enter Paces Mill by taking a roughly 45-degree right turn that descends downhill almost to the river. Northbound US 41 travelers make a 90-degree turn to enter Paces Mill, quickly and immediately descending to the main parking area. Traffic movements throughout Paces Mill are two-way, except for the one directional loop roadway around the main parking lot.

There are approximately 243 parking spaces at Paces Mill. The primary parking lot consists of five and a half parking rows that are oriented parallel to US 41. One additional parking row is near the Bob Callan trailhead oriented perpendicular to US 41. Most parking is in the main parking area, with a few spaces available in the southern parking area. Parking spaces at the southern parking area are designed for head-in parking, are large enough to accommodate vehicles with trailers, and each have a single post parking sign. Unauthorized vehicle parking occurs in non-permitted areas such as sidewalks or next to roadways on soft surfaces, especially on busy weekends.

Pedestrian Circulation. Pedestrian movements at Paces Mill primarily consist of walking in the parking rows and from the parking area to the northern boat ramp, the grassy area, or the Bob Callan trailhead. Few pedestrian trails/sidewalks currently exist. The only pedestrian sidewalk is the Mountain to River Trail that parallels the southern entrance/exit ramp, goes under US 41, and wraps back around to northbound US 41. There are no sidewalks in the parking area rows. A short sidewalk provides access to the restroom building and a short boardwalk provides ABA access to a river viewing area on the south side of the northern boat ramp. An informal social trail begins near the boardwalk and runs along the river.

Viewsheds. The visual qualities of Paces Mill are most easily discussed as being based on views from the following key viewpoints, which were selected because they represent the vantage points from which visual contrast (change) would be most noticeable.

- looking into Paces Mill from US 41
- looking from the current main parking area toward US 41 and toward the northern boundary
- looking from the northern boundary south across the entire unit
- views of the river (up, down, and across) from under US 41, in the wooded area north of US 41, and from the narrow, wooded area north of the large “Paces Mill Boat Ramp” sign

It is important to note that the line-of-site distances and views into and within Paces Mill are different depending on the season. The “leaf off” line of site is farther in distance and wider than when leaves are on. Currently, this difference is most prominent for vistas that include the deciduous trees in the main parking area and those around the restroom building.

Currently, vehicles and pedestrians on US 41 or the adjoining sidewalk generally have a clear view of the main parking area. Visitors standing in the main parking area can see the highway, with the highway bridge only being visible from the southernmost portion of the main parking lot. From the main parking area, visitors can also see large amounts of asphalt and a few hundred parking spaces around them, along with the restroom facility, the top of the northern boat ramp, and the grassy area to the north. Visitors in the grassy area looking south can see the river, depending on their exact location. They also have a clear view of the restroom facility, northern boat ramp, and main parking lot. Regardless of the viewpoint, all visitors can see the prominent electrical poles and high-voltage lines that run the length of Paces Mill.

Visitors can see the river from under US 41, but views are limited without scrambling over the riprap. Views of the river along the wooded area between the two boat ramps is possible, but limited by trees and foliage. The river is most clearly visible from the area around the large “Paces Mill Boat Ramp” sign because the area is mostly devoid of trees or vegetation that would obstruct views.

Trends. The US 41 improvements, as described above under “Vegetation” continue to benefit visitors to Paces Mill by providing roadway striping and an identifiable ingress and egress at Paces Mill. However, the project’s landscaping continues to appear more like a city park than a national park and contributes to a lack of NPS identity. The views of the US 41 bridge from within Paces Mill, which was present upon the site’s establishment, continue to detract from a natural viewshed free of development.

The variety of trail and trailhead projects, as described above under “Vegetation” could enhance the Cumberland area’s trail network, one that is easily accessed from Paces Mill on foot or bike. Visitors using Paces Mill as a start/end point for accessing the area’s larger trail network benefit from increased recreational trail capacity and attractiveness, as well as additional bike share stations. And although area trail network enhancements and additional bike share stations benefit its users, it also could result in more people parking and using Paces Mill or entering via foot or bike. This could result in increased congestion at Paces Mill, which could adversely impact the experience of visitors desiring an escape from an otherwise urban environment. The forthcoming Comprehensive Trails Management Plan identifies adaptive management strategies to address visitor use management at Paces Mill.

Effects of Alternative A: No Action

Hours of Operation. Paces Mill would continue to be open to visitors throughout the year during the day and be closed each day from dusk until dawn.

NPS Identity. Although the two entrance signs, existing wayfinding signs, and trail route signs would remain, Paces Mill would continue to lack strong interpretive or educational signage. The lack of interpretive signage limits visitor understanding of the area and why the National Recreation Area and its resources are nationally significant and thus part of the national park system.

Two large, blue dumpsters are currently located at the top of the northern boat ramp, along with numerous other small brown canisters for recyclables. The assemblage of dumpsters, trash, and recycling at the primary river access point would remain. This location facilitates ease of trash/recycling disposal for people getting out of the river, but is not shielded and fills up quickly, especially on busy weekends. In addition, large items are occasionally discarded in the dumpsters. This area, as described, would remain, which would continue to adversely affect visitors' image of Paces Mill.

The grassy area would remain under the no-action alternative. This area is human-made and mostly devoid of native vegetation. As such, it is not aligned with the mission of the National Recreation Area, including the significance of natural resources. Visitors therefore may not associate Paces Mill as a location with notable natural resources, but rather a city park.

Recreational Uses. The configuration of Paces Mill would remain unchanged under the no-action alternative, including the types of recreational uses available to visitors. This includes the existing bike share station. Over the long term, visitors would continue to create social trails at viewpoints along the river, causing resource damage. The lack of access to the river for hikers and land-based users would continue to be limited.

The grassy area would remain, which facilitates municipal park-like activities, generally consistent with the desired visitor experience for areas within the developed zone in the general management plan (GMP) (NPS 2009), but not typical of national park system units. The continuation of these recreational activities would detract from the experience of visitors who want to recreate in a more natural environment. With limited options in the surrounding urbanized area for this type of recreation, this adversely impacts this category of visitor and those looking for a national park experience rather than that of a municipal park. Overall, although many recreational uses would continue to be available to visitors over the long term, the lack of pedestrian infrastructure and presence of a nonnative grassy area detract from the visitor experience and would continue to do so.

Vehicular Circulation and Parking Capacity. The existing roadway and parking configuration would remain, as would the existing parking capacity of about 243. The current configuration of roadways and parking would prolong the current challenges with vehicular circulation. This includes vehicles pulling in and out of parking spaces in conflict with vehicles entering and exiting parking rows in both directions.

The current parking configuration at the southern boat ramp would remain under the no-action alternative. This parking area is not well used most of the time. As a result, the lack of striping and formalized turnaround space is not of much concern, except on busy weekends when

parking is at a premium. On busy weekends, these deficiencies adversely impact visitors using this lot and would continue to do so.

In addition, visitors would continue to park in unauthorized locations, especially on busy weekends. Such locations include vegetated areas along existing roadways, which increases vehicular conflict. This also results in a narrowing of the roadway width for other vehicles to pass by, resulting in an increased probability of doors opening into vehicles traveling on the roadway and enhances the likelihood of conflict with pedestrians. These problems would remain and result in driver and pedestrian frustration or collision/conflict, continuing to adversely impact visitor experience over the long term.

Pedestrian Circulation. The lack of pedestrian infrastructure would continue. Pedestrians would continue to be forced to use roadways, parking rows, or areas immediately adjacent including the vegetated islands between parking rows. The lack of pedestrian infrastructure adversely affects visitors' experience by putting them directly in conflict with vehicles, which most people are uncomfortable with for obvious safety reasons, or forcing them to walk next to roadways in uneven terrain not meant for walking. These conditions would continue over the long term. Although informal social trails are present in the wooded area along the river, the lack of a formal trail would continue to limit its use by most visitors, detracting from their ability to enjoy this part of the site.

The lack of pedestrian infrastructure at Paces Mill currently adversely impacts visitor experience and would continue to do so over the long term.

Viewsheds. Under the no-action alternative, views from the six viewpoints identified in the affected environment description would remain unchanged. The view from US 41 and upon entering Paces Mill can broadly be described as that of a highly manipulated and developed area. Most visitors likely consider such a view negatively relative to a more natural area anticipated/expected when visiting a unit of the national park system. Views include that of a large swath of asphalt parking and large utility poles and roadways.

The same is generally true from within the parking area because visitors are surrounded by asphalt with sparse tree cover on the western edge. However, the dense woods and wooded picnic area is visible from within the parking area, providing views of a more natural setting. Views from the grassy area would also remain unchanged as that of a large mowed grassy area, a restroom, trailhead signage for the Bob Callan Trail, and the main parking area. Depending on a viewer's location, US 41 is also visible and would remain so.

Views of the river are limited by riprap under US 41, which makes getting close to the river for wide-angle views difficult for almost all visitors and impossible for many. The two viewpoints along the river are also limited by dense foliage. Despite being able to see the river, these limitations negatively affect visitors and would continue to do so.

Overall, the visual/scenic quality of Paces Mill from these viewpoints can be summarized as likely being viewed negatively by visitors on average, which would continue over the long term.

Effects of Alternative B: Preferred Alternative

Hours of Operation. The preferred alternative would necessitate temporary phased closures at Paces Mill for an estimated 8 to 11 months. Parking would not be available during this time. The

closure duration estimate is based on a compressed construction schedule to minimize the length of closure. During construction, visitor's ability to use and experience Paces Mill would be adversely impacted. A boat ramp would remain open and operable at all times for emergency and search-and-rescue access. Because this alternative is unrelated to all other units of the National Recreation Area, the normal hours of operation at other units would not change and visitors could use other units during the proposed closure. Visitation may increase at other nearby units during the closure. The preferred alternative, therefore, would have adverse impacts on visitors for the estimated 8 to 11 month construction period. Should the construction be limited to the low end of the estimate, the impacts would be smaller.

NPS Identity. Entrance signs would remain under the preferred alternative, but the replacement of other signage would enhance Paces Mill's identity as a unit of the national park system. New signage would be similar and thematically integrated as in other national parks. This would enhance the usability and experience of the site by visitors over the long term.

The existing dumpster and trash/recycling assemblage at the top of the northern boat ramp would be removed. A dumpster pad and dumpster would be located at the intersection of the boat ramp and east side of the main parking lot entrance, which would be shielded with an enclosure to minimize its visibility. This move would have the effect of visitors encountering a less cluttered boat ramp area, so the focus could just be on access to great recreational opportunities, a benefit to all visitors over the long term.

The grassy area would be removed and used as a parking lot and space for a new visitor contact station. The architecture, compatible design, and materials of the visitor contact station structures would be more in line with those in other units managed by the National Park Service, which would enhance Paces Mill's overall identity as a unit of the national park system.

A meadow containing restored native endemic prairie species would replace the current main parking area. The meadow would be planted with native herbaceous (nonwoody) wildflowers and grasses. Existing trees would be retained to the extent practicable. Expansion of the area planted in native species would enhance the identity of Paces Mill as being part of the national park system over the long term.

Recreational Uses. The rehabilitation and reconfiguration of Paces Mill would result in numerous long-term benefits to visitor experience in recreating at the site. The installation of multiuse sidewalks throughout would greatly enhance the ability to hike, jog, and bike in Paces Mill. These sidewalks would also greatly enhance connectivity with the Bob Callan Trail and the Silver Comet Trail. For local and nonlocal visitors alike, these changes would be a measurable benefit over the long term.

Visitors have created social trails through the dense wooded area along the river over time, which has damaged resources. Formalizing the social trails and creating an elevated river overlook south of the northern boat ramp would not only benefit resources, it would also improve visitor experience in tangible ways. The development of a clearly delineated walking trail would provide visitors of varied abilities with a safe way to access and experience the wooded area adjacent to the river and be able to enjoy river views from the elevated river overlook. The addition of a shade structure near the northern boat ramp would provide an opportunity for visitors to gather near the river. This addition would likely increase use of the picnic area, which is currently not well used. All of these proposed changes would benefit visitors.

The development of a visitor contact station and changing/restroom facilities would greatly enhance the experience of visitors. The large number of river users at Paces Mill necessitates changing in or out of bathing suits, waders, etc. Visitors are currently forced to change in the few restroom stalls available, in their car, or underneath the cover of a towel. The new facility would eliminate this by providing single-user restroom/changing rooms to accommodate river users and other visitors alike.

And finally, installing a river amphitheater seating area and river access under the US 41 bridge removes an uninviting and mostly inaccessible area and turns it into a new recreational asset. This new area would provide visitors the option to sit and enjoy the views and sounds of the river, benefiting visitors over the long term by adding to their menu of recreational opportunities at Paces Mill.

Vehicular Circulation and Parking Capacity. The location and configuration of parking would change drastically under the preferred alternative, mostly resulting in beneficial impacts to visitors over the long term. The reconfiguration would remove the roadway on the east side of the current parking area and replace it with a hard-surface, multiuse trail. Visitors entering from northbound US 41 and wishing to go to the primary parking lot (now at the northern end of Paces Mill), would not need to stop at the bottom of the hill. They could proceed directly to the parking lot along the single roadway. The new parking lot configuration would not have parking rows, so movement would be much more intuitive and safer for drivers. This would benefit visitors as parking would be more streamlined and vehicle movements more obvious.

The total number of designated parking spaces would remain the same at 243. The primary parking lot capacity would be reduced to 174 total spaces. However, 30 parking spaces would be added along the southbound US 41 entrance ramp. Parking spaces adjacent to the southern boat ramp would be increased to 24, and 15 spaces would be added to the road connecting the southern and northern portions of the unit. Wood guardrails and signage at the pavement edges would eliminate shoulders and preclude parking in nondesignated vegetated areas, which would likely reduce unauthorized parking and congestion. Reduction in unauthorized parking could slightly reduce the total number of cars parked at the unit on busy summer days.

Development of a more user-friendly southern boat launch area with additional adjacent parking would likely increase traffic on this side of Paces Mill. Such an increase in use leads to potential concern about vehicle speed along the southern entrance ramp and the potential for congestion in this area. The inclusion of speed tables, rumble strips, and the presence of parked vehicles and people along the ramp, would likely keep traffic speeds at bay, minimizing this potential safety hazard.

Implementation of the preferred alternative would reconfigure the southern boat launch area to a loop road with pull-through vehicle-trailer parking. This would benefit users in the long term by precluding the need to back out of current parking spaces and turn around, especially challenging with a trailer. The new configuration would also reduce the likelihood of conflict between vehicles pulling in and out of this lot while others are trying to launch or pickup watercraft from the boat ramp. The new configuration would make vehicle movements more obvious and intuitive, enhancing vehicular circulation and benefiting visitors over the long term.

In sum, the reconfigured parking area and interior roadways would reduce vehicular conflict and movement issues, benefiting users over the long term by enhancing their experience at Paces Mill.

Pedestrian Circulation. The installation of a 10-foot-wide, multiuse, universally accessible hard-surface sidewalk throughout the interior of the site would benefit all users, including those with disabilities, by providing a safe and easy way to navigate the site and connect to trails extending from Paces Mill. A component of the new pedestrian mobility network would be the installation of many crosswalks (approximately eight) throughout Paces Mill to facilitate easy and safe roadway crossings. Replacing the current social trail with a formalized natural surface trail in the wooded area north of US 41 would increase visitation to this portion of Paces Mill and provide additional inter-unit walking/jogging routes. All of the new proposed pedestrian infrastructure would greatly benefit users over the long term.

Viewsheds. Under the preferred alternative, views from the six viewpoints identified in the affected environment description would change drastically. Upon arrival at Paces Mill from northbound US 41, the visitor experience would change from a view of descending down the hill toward a cluttered parking lot full of cars in the summer to a view of a small native prairie and a riparian forest next to the Chattahoochee River. Seeded vegetation would take some time to grow, so the full benefit of the prairie view may not be immediate. The overhead powerlines, however, would remain. Relative to current conditions, visitors would generally have a positive association with this visual change.

Because the main parking lot would be moved north, views from the multiuse sidewalk on the east side of the meadow are described instead. The views would be of the meadow on one side and the densely wooded section and picnic area on the other, which would be much more natural than current conditions. From this viewpoint, US 41 could still be seen when looking south. Looking north, visitors would have views of the new visitor contact station and relatively large portions of the parking area. The height of the visitor contact station would limit views of new trees and the bioswales to the north in general, although this is entirely dependent on the exact viewing location. Views from what was the grassy area would now consist of bioswales, native trees, and parking in the foreground, along with the back of the visitor contact station and portions of the meadow (exact location dependent).

Views of the river would be enhanced under the preferred alternative. The area under US 41 would now readily allow visitors to reach the water's edge and experience clear, wide-angle views up, down, and across the river—a sizeable long-term benefit. An elevated overlook north of US 41 along the river's edge would be installed for the sole purpose of formalizing a clear, unobstructed view of the river. The same is true of the overlook proposed north of the northern boat ramp. While development of an elevated overlook detracts from the overall natural setting in both locations, this negative is outweighed by the ability to clearly see and experience the primary resource that makes Paces Mill such a popular destination.

Overall, the scenic quality of Paces Mill would be substantially enhanced. Visitors would likely consider such changes positively relative to the current condition as the proposed changes increase views of a more natural setting typically expected at a unit of the national park system. Formalizing river views over the long term would be meaningful and positive.

Conclusion. In summary, the addition of multiuse trails throughout Paces Mill under the preferred alternative, would add to the connectivity of the area's trail system, benefiting recreational users. The benefits to visitor use and experience trends contributed by the proposal's changes would be noticeable, and important to the area's trail connectivity and recreational opportunities.

Overall, the proposal would benefit visitors over the long term in a meaningful way. Paces Mill would be a more desirable recreation destination in the Cumberland area and northern Atlanta metropolitan region. Benefits would result from an enhanced site identity, better vehicular and pedestrian circulation, more context-appropriate recreational uses, and enhanced viewsheds. And although temporary, unavoidable, phased closures would adversely impact all potential visitors, once construction is finished the benefits would immediately accrue to all visitors. Since there are hundreds of thousands of visitors each year, the number of people that would benefit over the first 10 years following implementation would be approximately 2.5 million.

VISITOR SAFETY

Affected Environment

Overall Visitor Safety. The types of safety issues and incidents at Paces Mill requiring a response from law enforcement typically fall into a few categories—fender benders, vehicle break-ins, and illicit activity. There were 29 incidents reported in 2018 at Paces Mill to which National Park Service law enforcement personnel responded, which is about one reported incident every 12 days throughout the year, on average (NPS 2019c). The number of incidents falling into the three categories described below is not known. Moreover, because this figure does not include incidents to which local or county police responded, it is almost certainly a conservative figure.

Vehicular and Pedestrian Conflict. The existing conditions are described in the “Visitor Use and Experience” section above under the headings of “Vehicular Circulation and Parking Capacity” and “Pedestrian Circulation.” They are not repeated here.

Illicit Activity. The dense woods between the US 41 bridge and the northern boat ramp and the area west of the southern entrance ramp provide ample cover for illicit activity without being seen. Such activity includes drug use and these areas being used by homeless individuals. The actual prevalence and frequency of such activity is, by its very nature, mostly unknown and untrackable, but it is present.

Property Crimes. The most common property crime that occurs at Paces Mill is vehicle break-ins. Perpetrators are able to use trees and parking island foliage to hide themselves and quickly break into vehicles without being noticed.

Effects of Alternative A: No Action

Overall Visitor Safety. The annual number of law enforcement responses would likely remain unchanged because the physical configuration of Paces Mill would not change under the no-action alternative.

Vehicular and Pedestrian Conflict. No changes would be made to the physical configuration of Paces Mill. On busy weekends, there would continue to be an increased risk for vehicle-vehicle conflict at the southern boat ramp parking area given the lack of formalized turnaround space or striping.

Visitors would continue to park in unauthorized locations, especially on busy weekends. This hinders seamless ingress/egress of all vehicles, including emergency responders, which is a

notable concern with a potentially serious adverse impact on anyone involved in an incident requiring rapid response.

The northern boat ramp would continue operation with the same configuration. Congestion and user conflict at and near this ramp would continue due to the lack of a designated wait zone for dropoff/pickup. Moreover, visitors parking in the main parking lot would continue to have to walk through the parking lot, along the parking area islands, or on the side of the entrance/exit roadways. The lack of formal sidewalks would continue to represent a visitor safety concern and risk by placing pedestrians in direct conflict with vehicles or require them to walk on uneven, soft surfaces not designed for pedestrian travel.

Illicit Activity. Because no changes would be made to the physical configuration of Paces Mill under the no-action alternative, illicit activity would continue to occur. Such activity not only requires law enforcement response when reported, but it would also continue to result in the belongings and trash, of those participating in such activity being left behind. This not only detracts from visitor experience, but certain items pose a safety risk to visitors. The fact that these areas are currently underused due to a lack of formal trails does minimize the potential for visitor interaction with individuals using these areas for illicit activity, but such interaction would remain possible over the long term.

Property Crimes. No changes would be made to the physical configuration of Paces Mill under the no-action alternative so break-ins would continue to occur. Although the number of incidents associated with vehicle break-ins is not particularly high, it would continue to adversely impact visitor safety over the long term.

Effects of Alternative B: Preferred Alternative

Overall Visitor Safety. The physical design changes are anticipated to reduce the number of law enforcement responses per year and increase the safety of Paces Mill visitors. Law enforcement presence would continue on a routine schedule and on busy weekends as a means to ensure visitor safety. This would likely include Cobb County law enforcement placing a search and rescue boat and team in the river on busy weekends.

Vehicular and Pedestrian Conflict. The changes to the main parking lot configuration and resulting vehicle movements would enhance circulation and mitigate the potential for vehicle collisions. The removal of the roadway east of the meadow, the installation of fencing along the roadway to the main parking lot, installation of multiuse hard-surface sidewalks, coupled with strategic planting of trees would mitigate unauthorized parking throughout Paces Mill over the long term. However, parking in nonpermitted areas would continue to be an issue, but it would be less likely under this alternative than the no-action alternative.

The creation of a designated waiting area for dropoff/pickup would formalize this activity instead of the ad hoc manner in which it currently occurs. This would reduce the potential for vehicle collisions and conflict between vehicles and pedestrians, bicyclists, river users, and commercial operators in this highly used area of Paces Mill.

The installation of multiuse hard-surface sidewalks throughout Paces Mill would almost eliminate the current situation where visitors must travel in direct conflict with vehicles, which would increase visitor safety over the long term. The few roadway crossings where vehicle/pedestrian conflict remains would have a painted crosswalk to mitigate safety concerns

to the extent practicable. Formalizing social trails to access the river overlooks would eliminate the current resource damage and benefit visitor safety over the long term.

New parking spaces along the southern entrance ramp increases the potential for vehicle-vehicle and vehicle-pedestrian conflict in this area. However, the installation of speed tables, rumble strips, and the presence of parked cars would mitigate this concern somewhat by slowing vehicle speeds.

Illicit Activity. A formalized natural-surface trail from the new shade structure / gathering area near the northern boat ramp, through the currently undeveloped wooded area along the river, to the new river amphitheater seating area would be constructed. This formalized trail would result in more visitors using this portion of Paces Mill, which would likely decrease the potential for illicit behavior, benefiting visitor safety over the long term.

Property Crimes. The new main parking area in a loop shape, with the visitor contact station located within the loop, would improve site lines for visitors, staff, and volunteers, which would likely deter vandalism. The improvements to the unit could also attract more engaged and interested visitors that could cause those interested in illicit activity to detour away from Paces Mill. Therefore, vehicle break-ins would likely decrease compared to the no-action alternative.

Conclusion. In summary, rehabilitation of Paces Mill would result in notable benefits to visitor safety in the form of reduced concerns about vehicle collisions and vehicle-pedestrian conflict, along with anticipated reduction in illicit activity and the likelihood of break-ins. Because there are hundreds of thousands of visitors each year, the number of people that would benefit over the first 10 years following implementation would be approximately 2.5 million. The benefit from implanting the preferred alternative would be an important contribution to visitor safety trends in the Cumberland area.

CHAPTER 4: CONSULTATION AND COORDINATION

SECTION 7 ENDANGERED SPECIES ACT CONSULTATION

The National Park Service has determined that the proposed action would have no effect on species listed as threatened or endangered under the US Endangered Species Act of 1973, as described in chapter 1, table 2, and Chapter 3: Affected Environment and Environmental Consequences. No consultation is required for no effect determinations.

SECTION 106 NATIONAL HISTORIC PRESERVATION ACT CONSULTATION

The National Park Service has completed consultations with the Georgia Department of Community Affairs (formerly Natural Resources), Historic Preservation Division, affiliated tribes and other consulting parties, as mandated by the implementing regulations (36 CFR 800) for section 106 of the National Historic Preservation Act of 1966, as amended. The National Park Service sent HPD a letter on May 2, 2019, with a determination that no historic properties that are listed or eligible for listing in the National Register of Historic Places (NRHP) would be affected by the proposed action, as defined in 36 CFR Part 800.4(d)(1) by the rehabilitation project at Paces Mill (appendix G). HPD responded on May 29, 2019, with a request for additional information. On June 4, 2020, the park provided additional information with a no adverse effect determination. HPD concurred with the NPS finding of effect on June 22, 2020. As the project design changed, the National Park Service continued consultation with HPD to determine that no historic properties would be affected on the southwestern side of US 41 in a letter on May 19, 2021. The HPD concurred with the finding on June 8, 2021.

The National Park Service initiated tribal consultation by sending informal consultation letters to 14 tribal groups on June 8, 2021, inviting participation and requesting comments (appendix G).

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APPENDIXES

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APPENDIX A: LIST OF PREPARERS

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APPENDIX B: GLOSSARY AND TERMS

Affected Environment. The existing condition of the resources that could be impacted by implementing any of the alternatives.

Archeological Resources. Any material remnants or physical evidence of past human life or activities of archeological interest, including the record of the effects of human activities on the environment. They are capable of revealing scientific or humanistic information through archeological research. Any material remnants of human life or activities at least 100 years of age and of archeological interest (32 CFR 229.3(a)).

Archaeological Resources Protection Act of 1979 (ARPA). Established in 1979, this act provided additional regulations to secure and protect archeological resources and sites on public and Indian lands for the future benefit of the American people. ARPA also provides for the enforcement of penalties against those who loot or vandalize archeological resources (16 *United States Code* [USC] 470aa-470mm).

Context. The significance of an action that must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the preferred alternative. For instance, in the case of a site-specific action, significance would usually depend on the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant (40 CFR 1508.27).

Council on Environmental Quality (CEQ). Established by Congress within the Executive Office of the President with passage of the National Environmental Policy Act of 1969. The CEQ coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

Critical Habitat. “. . . (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance within the provisions of section 4 of this [Endangered Species] Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations and protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this [Endangered Species] Act, upon a determination by the Secretary that such areas are essential for the conservation of the species (ESA Section 3(5)(a)).”

Cultural Resources. Historic districts, sites, buildings, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or any other reasons.

Director’s Order. Proclamation or order issued by the director of the National Park Service that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs or NPS regulations and programs.

Endangered Species. “. . .any species (including subspecies or qualifying distinct population segment) that is in danger of extinction throughout all or a significant portion of its range (ESA

Section 3(6)).” The lead federal agency, US Fish and Wildlife Service, for the listing of a species as endangered is responsible for reviewing the status of the species on a five-year basis.

Endangered Species Act (16 USC 1531–1544, 87 Stat 884), as amended. An act to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and to provide a program for the conservation of such endangered species and threatened species.

Environmental Assessment. An environmental assessment is prepared pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement.

Floodplain. The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

National Environmental Policy Act of 1969 (NEPA). The act, as amended, articulates the federal law that mandates protecting the quality of the human environment. It requires federal agencies to systematically assess the environmental effects of their proposed activities, programs, and projects including the “no-action” alternative of not pursuing the preferred alternative. NEPA requires agencies to consider alternative ways of accomplishing their missions in ways that are less damaging to the environment (Pub. L. 91-190, 42 USC 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982).

National Historic Preservation Act of 1966 (NHPA). An act to establish a program for the preservation of historic properties throughout the nation, and for other purposes, approved October 15, 1966 (Public Law 89-665; 80 STAT. 915; 16 USC 470 as amended by Public Law 91-243, Public Law 93-54, Public Law 94-422, Public Law 94-458, Public Law 96-199, Public Law 96-244, Public Law 96-515, Public Law 98-483, Public Law 99-514, Public Law 100-127, and Public Law 102-575).

Planning, Environment, and Public Comment (PEPC). This National Park Service website provides access to current planning and environmental documents. It also provides for public involvement in NPS planning processes.

Civic Engagement. Civic engagement requires examining a proposed action and its possible effects; establishing the depth of environmental analysis needed; determining analysis procedures, data needed, and task assignments. The public is encouraged to participate and submit comments on proposed projects during this period.

Section 106. Refers to section 106 of the National Historic Preservation Act of 1966, which requires federal agencies to take into account the effects of their proposed undertakings on properties included or eligible for inclusion in the National Register of Historic Places and give the Advisory Council on Historic Preservation a reasonable opportunity to comment on the proposed undertakings.

Soundscape. The human perception of acoustic resources in a park unit’s environment.

Threatened. “. . . Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (ESA Section 3(19)).”

Viewshed. The view of an area from a specific viewpoint.

Wetlands. The US Army Corps of Engineers (*Federal Register* 1982) and the US Environmental Protection Agency (*Federal Register* 1980) jointly define wetlands as: Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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APPENDIX C: ACRONYMS AND ABBREVIATIONS

ABA	Architectural Barriers Act
BCE	Before the Common Era
BMP	Best Management Practice
CE	Common Era
CID	Community Improvement District
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
e.g.	For Example
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GDOT	Georgia Department of Transportation
GMP	General Management Plan
HPD	Georgia Department of Community Affairs, Historic Preservation Division
NEPA	National Environmental Policy Act of 1969, as amended
NHPA	National Historic Preservation Act of 1966, as amended
NPS	National Park Service
NRHP	National Register of Historic Places
PEPC	Planning, Environment and Public Comment website
SEAC	Southeast Archeological Center
US	United States
US 41	United States Highway 41
USACE	US Army Corps of Engineers
USC	United States Code
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey

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