

Draft
General Management Plan /
Environmental Impact Statement
April 2013

Fort Raleigh National Historic Site

North Carolina



Archeological excavation at the earthwork fort (1950)

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General management plans are long-term documents that establish and articulate a management philosophy and framework for decision making and problem solving in the parks. Fort Raleigh National Historic Site's last planning effort was completed in 1964, however this Master Plan was not prepared in conformance with the requirements of the National Parks and Recreation Act of 1978 (PL 95-625) and current management policies and guidelines. Since the 1964 Master Plan, the boundary of Fort Raleigh National Historic Site has expanded as well as the interpretive mission that includes peoples and individual's whose lives and lifestyles span more than 420 years. Guidance is needed to provide management direction and address issues associated with the national historic site's expanded boundary and themes. This general management plan provides management direction for the park for the next 15 to 20 years.

This document examines three alternatives for managing Fort Raleigh National Historic Site. The impacts of implementing each of the alternatives are also analyzed. One of the three alternatives is Alternative A, the "no-action alternative" that reflects park current conditions and management actions continued into the future. This alternative provides a baseline against which to compare the other alternatives. The remaining alternatives differ mainly in the level of partnerships, extent of research, the role of research in interpretation, level of trail development, and number of staff proposed.

This general management plan / environmental impact statement has been distributed to other agencies and interested organizations and individuals for their review and comment. The public comment period for this document will last for 60 days after the Environmental Protection Agency's notice of availability has been published in the Federal Register. Readers are encouraged to comment.

Comments on this general management plan / environmental impact statement are welcome and will be accepted during the 60-day public review and comment period. During the comment period, comments may be submitted using one of the methods noted below.

Online: It is preferred that readers submit comments online through the park planning website <http://parkplanning.nps.gov/fora>. This method will allow comments to be incorporated into the National Park Service comment system. An electronic public comment form is provided through this website.

Mail:

Superintendent
Fort Raleigh National Historic Site
General Management Plan
1401 National Park Drive
Manteo, NC 27954

Or

Hand delivery: Comments can be hand delivered to the public meetings the National Park Service will hold regarding this general management plan / environmental impact statement. The public meetings will be announced in the media following the release of this plan. Comments can also be hand delivered to the above mailing address.

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. Although you can ask the National Park Service to withhold your personal identifying information from public review in your comment, the National Park Service cannot guarantee your request will be granted.

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SUMMARY

BRIEF DESCRIPTION OF FORT RALEIGH NATIONAL HISTORIC SITE

Fort Raleigh National Historic Site was established by Secretarial Order on April 5, 1941, to preserve land declared to be of national significance as a portion of the colonial settlement or settlements established in America by Sir Walter Raleigh between 1587 and 1591. The national historic site contains 513 acres that are unique in the National Park Service (NPS) system because of the preservation and interpretation of the history of the first English attempts at colonization in the New World (from 1585 to 1587), and the history of Native Americans, European Americans and African Americans on Roanoke Island. The national historic site also preserves the amphitheater and support facilities associated with the continuing production of the nation's first and longest running outdoor symphonic drama, *The Lost Colony*. The drama is entirely managed and produced by the Roanoke Island Historical Association, the NPS's principal partner in this continuing endeavor since the establishment of Fort Raleigh National Historic Site.

PURPOSE OF THE GENERAL MANAGEMENT PLAN / ENVIRONMENTAL IMPACT STATEMENT

The National Parks and Recreation Act of 1978 and NPS policy mandate the development of general management plan for each unit of the national park system with the intention of establishing future management direction. This general management plan provides comprehensive guidance for perpetuating natural systems, preserving cultural resources, and providing opportunities for quality visitor experiences at Fort Raleigh National Historic Site. This plan establishes the management framework and direction for the national historic site,

addresses changing issues and conditions, and incorporates new resource information.

Although a general management plan provides the analysis and justification for future funding, the plan in no way guarantees that money will be forthcoming. Requirements for additional data for legal compliance and competing national park priorities can delay implementation of actions. Full implementation of a plan could lie many years in the future.

MANAGEMENT ZONES

Management zones and prescriptions indicate how different areas of the national historic site would be managed. The following four management zones were created for the national historic site: Visitor Services Zone, Administrative Zone, Waterside Theatre Zone, and Resource Preservation Zone. The Visitor Services Zone includes areas where visitors are introduced to the national historic site, and receive information about its resources, interpretive programming, and possible activities. The Administrative Zone houses administrative facilities such as maintenance facilities; administrative offices; national historic site staff housing; artifact research, treatment, and storage facilities; and partner offices and facilities. The Waterside Theatre Zone includes the Waterside Theatre and other facilities that accommodate and support *The Lost Colony* outdoor symphonic drama. The Resource Preservation Zone is focused on the preservation and protection of cultural resources and artifacts discovered. Natural resources would continue to be protected in accordance with laws and policies.

ALTERNATIVES

The NPS developed all alternatives with substantial public, interagency, and NPS staff participation. Three alternatives have been developed for managing visitor use and

resources at Fort Raleigh National Historic Site. Each alternative provides a different management approach. The alternatives were based on the park's purpose and significance, legal mandates, public views, and information on visitor use and park resources. The alternatives are: Alternative A – the No-action Alternative, Alternative B, and Alternative C (NPS Preferred Alternative).

ACTIONS COMMON TO ALL ALTERNATIVES

Several actions would be proposed under all alternatives. These actions common to all alternatives are as follows (see chapter 2 for additional information regarding these actions):

- New exhibits for the recently repaired and renovated Lindsay Warren Visitor Center would be designed and installed.
- The Prince and Beehive houses, currently threatened by shoreline erosion and no longer viable for occupancy, would be removed from the national historic site.
- The national historic site has proposed to prepare a shoreline erosion management plan and environmental impact statement to present alternatives for addressing shoreline conditions at the national historic site, including lands and facilities.
- Catastrophic loss is defined by the NPS as loss of resources or facilities due to storms, floods, earthquakes, fires, or other disasters of natural or man-made origin. Ongoing shoreline erosion is not considered a catastrophic event. Resource management decisions due to shoreline erosion would be deferred to the shoreline erosion management

plan and environmental assessment that is an element of all alternatives.

- Should shoreline erosion threaten the integrity of the Dough Cemetery, the NPS would initiate relocation of the cemetery with prior approval from the Dough family. Although the Dough Cemetery is currently protected by a rock revetment and a shoreline erosion management plan is proposed, relocation of the Dough Cemetery may still be necessary.

ALTERNATIVE A: NO-ACTION / CONTINUE CURRENT MANAGEMENT

Concept

Sections 1502.14 and 1508.25 of the Council on Environmental Quality (1978) regulations for implementing the National Environmental Policy Act require that an alternative of no-action be included in all environmental evaluations. Accordingly, the NPS developed a no-action alternative, designated Alternative A. Alternative A is the continuation of current management actions and direction into the future; continuing with the present course of action until that action is changed. "No-action" does not mean the national historic site does nothing. Rather, Alternative A represents how the national historic site would continue to manage natural resources, cultural resources, and visitor use and experience if a new general management plan was not approved and implemented.

Visitor Experience

The NPS would continue to centralize orientation to the national historic site at the Lindsay Warren Visitor Center. Interpretation of the Roanoke Voyages and modestly expanded interpretive themes would continue to occur through films and exhibits at the Lindsay Warren Visitor Center, the Freedmen's Colony and Underground Railroad exhibits, through wayside exhibits, and other methods.

Summary

Facilities and Associated Visitor Activities

Under Alternative A, no new facilities would be constructed by Fort Raleigh National Historic Site or within the national historic site boundary. The national historic site would continue maintaining and operating the current trail system.

Expanded Interpretive Mission

The national historic site would continue to interpret the Roanoke Voyages and there would be limited opportunities to address expanded interpretive themes through films and exhibits at the Lindsay Warren Visitor Center, the Freedmen's Colony and Underground Railroad exhibits, through wayside exhibits, and other methods. The small interpretive staff dedicated to Fort Raleigh National Historic Site would limit increased interpretive activities. There is currently one full-time permanent interpreter, supplemented by seasonal staff (NPS 2010a). Existing needs for interpretive activities include staffing the visitor center, presenting programs, conducting school tours, presenting education programs in local and area schools, roving the national historic site, developing interpretive products, and researching the history and resources of the national historic site. Visitors have expressed the desire to see ranger-led programming expanded, however this would not likely occur given existing staffing levels.

Partnerships

The national historic site would maintain existing partnerships with the Roanoke Island Historical Association and the First Colony Foundation. Expansion of existing partnerships or development of new partnerships would not likely occur.

Resource Conditions

Under Alternative A, the national historic site would:

- Maintain existing landscaped areas or convert them to low maintenance plantings.
- Allow natural processes such as shoreline erosion to prevail in most areas, including the pond area. Excavate archeological resources that are threatened.
- Continue to protect the Waterside Theatre area and Dough Cemetery shorelines pending results of future shoreline studies and environmental analysis.
- Implement the Outer Banks Group Fire Management Plan.
- Continue current resource collections management efforts.
- Continue current exotic plant management practices.
- Continue to conduct archeological surveys in compliance with Section 110 of the National Historic Preservation Act and the research requirement of Public Law 101-603. The NPS would continue to coordinate with the First Colony Foundation for on-going annual surveying.
- Continue natural resource monitoring activities.

Response to Catastrophic Loss

Catastrophic loss is defined by the NPS as loss of resources or facilities due to storms, floods, earthquakes, fires, or other disasters of natural or man-made origin. Under Alternative A, the NPS would continue current management practices. Natural processes would take precedence. However, resource management decisions due to shoreline erosion would be deferred to the shoreline erosion management plan and environmental assessment that is an element of all alternatives.

Estimated Costs and Staffing

Costs identified are for comparative purposes. The costs to implement Alternative A would not differ from the current annual costs for Fort Raleigh National Historic Site, with adjustments for inflation. The estimates are presented in year 2011 dollars, rounded to the nearest hundred dollars, and include:

- \$871,900 annually for operations and maintenance; and
- \$176,500 for one-time facility costs (removal of Prince and Beehive houses).

The total number of full-time equivalent staff would remain relatively constant at 4.95. The national historic site would continue to share staff with Cape Hatteras National Seashore and the Wright Brothers National Memorial. Therefore, the number of staff is not a whole number. Staff would continue to include full-time and seasonal interpretive and maintenance staff and law enforcement rangers. NPS volunteers would continue to provide important services at a negligible cost.

ALTERNATIVE B

Concept

Fort Raleigh National Historic Site would greatly expand the scope of its partnerships through greater partner involvement in interpretation of the Roanoke Voyages. Use of a revised cooperative agreement or other appropriate contract or mechanism would permit the partner to take on this responsibility. NPS staff would interpret other national historic site stories. By coordinating and expanding efforts among The Elizabethan Gardens, Roanoke Island Historical Association, and the NPS, visitors would be inspired to spend more time in the national historic site. Under Alternative B, the national historic site would:

- Emphasize a greater reliance (than under current conditions) on partnerships, cooperative agreements, and on-site visitor facilities and services to accomplish interpretation of the Roanoke Voyages. NPS interpretive focus would be on the national historic site's other stories (Carolina Algonquians, Civil War, Freedmen's Colony, Fessenden experiments).
- Provide orientation to the national historic site.
- Evaluate the feasibility of an expanded campus (new Roanoke Island Historical Association [partner]-funded visitor center/ indoor theater could be built near the current NPS visitor center) for partner-funded interpretation of the Roanoke Voyages and *The Lost Colony* outdoor symphonic drama.
- The NPS would also address compliance requirements for ground disturbing projects such as trails work, vegetation plantings, expansion of parking at headquarters (eight spaces), outdoor seating area, signage and waysides, and removal of the Prince and Beehive houses.

Many of the features of Alternative B would be the same as those already described for Alternative A. To reduce redundancy, references will be made to features in Alternative A and detailed descriptions will be provided only for new or different elements proposed for Alternative B.

Visitor Experience

All the studies and planning efforts to provide better access, safety, and visitor orientation on Roanoke Island would be the same as described in Alternative A. In addition, under Alternative B the national historic site would:

Summary

- Expand personal interpretive service program efforts.
- Inspire visitors to spend more time on-site through expanded interpretive efforts, facilities, partnering, marketing, and availability of food service (drinks and snacks) at the national historic site.
- Evaluate the feasibility of an expanded campus (new Roanoke Island Historical Association [partner]-funded visitor center/ indoor theater could be built near the current NPS visitor center) for partner-funded interpretation of the Roanoke Voyages and *The Lost Colony* outdoor symphonic drama.
- Provide more emphasis on theatrical skills classes through enhanced partnerships and partner-funded facilities.
- Natural processes would take precedence; however, the NPS would take measures to protect sensitive resources such as Dough Cemetery and Waterside Theatre.
- Establishment of a small outdoor seating area to provide interpretive programming near the reconstructed earthworks.
- An NPS partner would fund and conduct a feasibility study and assessment of a range of alternatives for the design and construction of a partner-funded and operated visitor center annex. This annex would be in proximity to the existing Fort Raleigh visitor center and would provide additional program space, including, for example, exhibit space, restrooms, offices, storage, multipurpose rooms, and an indoor theater.

Management Zoning, Facilities, and Associated Visitor Activities

Under Alternative B, the maintenance facility, employee residences, water treatment plant, The Lost Colony administration building, and national historic site headquarters would be designated as part of the Administrative Zone. The Waterside Theatre and support buildings, ticket booth, and theater parking would fall within the Waterside Theatre Zone. The picnic area, national historic site entrance, Freedmen’s Colony Monument, restrooms, Virginia Dare Monument, Earthwork Fort, Freedom Trail trailhead, and visitor center would all fall within the Visitor Services Zone. The remainder of the national historic site, including the Thomas Hariot Nature Trail, would fall within the Resource Preservation Zone.

In addition, Alternative B would include the following:

Trails. Under Alternative B the national historic site would extend the Roanoke Island multi-use trail (“Bike Path”) into the national historic site all the way to The Elizabethan Gardens, the Lindsay Warren Visitor Center, and to the Waterside Theatre parking area. A trail would be established parallel to the Freedom Trail or a new trail would be established along the entrance road that would complete the loop between the Freedom Trail and Highway 64. Interpretive signage would be provided and circulation patterns on trails would be clarified.

Lindsay Warren Visitor Center. Under Alternative B, the national historic site would continue to maintain and staff the Lindsay Warren Visitor Center; however, the interpretive focus of that facility would change. Instead of interpreting the full array of the park’s themes, the NPS Lindsay Warren Visitor Center would interpret the Carolina Algonquians, Freedmen’s Colony, Civil War, and Fessenden radio experiments. The interpretation of the Roanoke Voyages

themes would be done by a partner in a new partner-constructed and operated annex facility. The NPS partner would be required to fund and conduct a feasibility study for this new facility.

Expanded Interpretive Mission

Under Alternative B the national historic site would:

- Rely more upon Roanoke Island Historical Association to tell the story of the Roanoke Voyages. The NPS would interpret other national historic site stories, including Carolina Algonquians, Freedmen's Colony, Civil War, and Fessenden radio experiments.
- Provide self-guided interpretive opportunities using existing trails.
- Explore the use of the NPS Arts-in-Parks program. This program is offered in various parks across the country and invites visitors to experience the wonder of the park in combination with the wonder of the arts.

Partnerships

Under Alternative B the national historic site would maintain and enhance existing partnerships and expand partnerships for interpretive and theatrical education purposes.

Resource Conditions

Many elements of resource conditions would be the same as those described in Alternative A. In addition to those described under Alternative A, Alternative B would include the following:

- Establish vegetative screening along the road to the Waterside Theatre

in order to minimize or screen the view of vehicles from visitors as they experience the nearby earthworks.

- Conduct one additional archeological investigation and data recovery between Pear Pad Road and the Heritage Point subdivision. This area has not been investigated to the extent that other areas of the national historic site have and it has the potential to yield information about island historical themes apart from the Roanoke voyages and the Lost Colony. These themes include the Native American culture, the Antebellum period, the Civil War, the Freedmen's Colony, and the Works Progress Administration camp.

Response to Catastrophic Loss

Catastrophic loss is defined by the NPS as loss of resources or facilities due to storms, floods, earthquakes, fires, or other disasters of natural or man-made origin. Under Alternative B, the NPS would rebuild and protect existing facilities in place unless future extreme and/or successive catastrophic natural disasters warranted otherwise. However, resource management decisions due to shoreline erosion would be deferred to the shoreline erosion management plan and environmental assessment that is an element of all alternatives.

Estimated Costs and Staffing

The estimated costs to fully implement Alternative B provide a relative sense of the resources necessary to implement this alternative. The cost estimate is in year 2011 dollars and each item has been rounded to the nearest hundred dollars. The estimated annual operating costs would be \$1,312,300. Staff costs would increase to address the salary of 3.35 additional full-time equivalent staff positions (for a total of 8.3 full-time equivalent staff positions). Because these positions would continue to be shared with

Summary

Cape Hatteras National Seashore and the Wright Brothers National Memorial they represent a percentage of staff time at the national historic site and are therefore not a whole number. Additional staff would include interpretive and maintenance staff, and law enforcement rangers.

One-time NPS facility costs would be approximately \$931,300. This would include the following:

- Install new wayside exhibits in the vicinity of the visitor center;
- Install native vegetation plantings to screen the maintenance area and headquarters area;
- Expand the parking at headquarters (eight spaces);
- Extend the bike trail from Highway 64 to Waterside Theatre and The Elizabethan Gardens;
- Modify the existing trail system to make it accessible;
- Establish an outdoor seating area near the reconstructed earthworks;
- Add signs and waysides for the trail system north of Highway 64; and
- Remove the Prince and Beehive houses due to extreme shoreline erosion.

One-time, non-facility costs would include one archeological investigation and data recovery between Pear Pad Road and the Heritage Point subdivision.

ALTERNATIVE C (NPS PREFERRED ALTERNATIVE)

Concept

Public Law 101-603, November 16, 1990 broadened the interpretive and resource preservation purpose of Fort Raleigh

National Historic Site. Alternative C would emphasize Section 3 of Public Law 101-603 which states that the “Secretary, in consultation with scholarly and other historic organizations, shall undertake research on the history and archeology of the national historic site, and the associated peoples and events.” The national historic site would accomplish this by increasing emphasis on research related to interpretive themes and legislative mandates. By coordinating and expanding efforts with research organizations and agencies, visitors would benefit by gaining increased knowledge of the national historic site and its multiple themes, both cultural and natural. Under Alternative C, the national historic site would:

- Enhance its partnership with the First Colony Foundation, a North Carolina 501(c) (3) non-profit organization dedicated to conducting archeological and historical research, combined with public education and interpretation. The First Colony Foundation is focused on research and education relating to the story of North Carolina and America’s beginnings with the attempts by Sir Walter Raleigh to establish English colonies at Roanoke Island in the 1580s under his charter from Queen Elizabeth I (First Colony Foundation website 2011).
- Establish partnerships with organizations that focus on natural and cultural resource topics.
- Include archeology as a significant aspect of the research program at the national historic site.
- Maintain the current visitor center as the primary visitor orientation facility.
- Implement NPS researcher-in-the-park program.

- Promote increased research use of collections at the Museum Resource Center.
- Increase research efforts with regard to the effects of climate change on natural and cultural resources in the national historic site.

Many of the features of Alternative C would be the same as those already described for Alternative A or Alternative B. To reduce redundancy, references will be made to features in those alternatives and detailed descriptions will be provided only for new or different elements in Alternative C.

Visitor Experience

All the studies and planning efforts to provide better access, safety, and visitor orientation on Roanoke Island would be the same as described in Alternative A. In addition, under Alternative C the national historic site would:

- Continue to centralize orientation and exposure to the national historic site's expanded interpretive mission in the Lindsay Warren Visitor Center.
- Provide opportunities for visitors to interact in positive and meaningful ways with archeologists, historians, and researchers on-site.
- Encourage visitors to experience outlying resources of the site independently through more formal interpretive trails with themed areas.
- Enhance the visitor experience by participating in partner programs that offer interpretive programs at other off-site locations on Roanoke Island.
- Management Zoning, Facilities, and Associated Visitor Activities

Under Alternative C, the maintenance facility, employee residences, water

treatment plant, *The Lost Colony* outdoor symphonic production area, and national historic site headquarters would be designated in the Administrative Zone. The Waterside Theatre and support buildings, ticket booth, access roads, and theater parking would be designated within the Waterside Theatre Zone. The picnic area, national historic site entrance, Freedmen's Colony Monument, restrooms, Freedom Trail trailhead, and visitor center would all fall within the Visitor Services Zone. The remainder of the national historic site, including the Thomas Hariot Nature Trail, would be designated as part of the Resource Preservation Zone.

Measures proposed to address shoreline issues would be the same as described for Alternative B. A small outdoor seating area would be established to provide interpretive programming near the reconstructed earthworks as described in Alternative B.

Trails. Under Alternative C the national historic site would determine the design, route, and other features of an improved loop trail in subsequent implementation planning and analysis. As under Alternative B, the national historic site would establish a parallel trail to the Freedom Trail or establish a new trail along the entrance road that would complete the loop between the Freedom Trail and Highway 64. Interpretive signage would be improved and circulation patterns on national historic site trails would be clarified.

Lindsay Warren Visitor Center. Under Alternative C the national historic site would:

- Maintain the Lindsay Warren Visitor Center as the primary orientation and interpretation center of the national historic site.
- Upgrade or replace exhibits and film(s), as funding allows, to accommodate the national historic site's expanded interpretive themes.

Summary

Expanded Interpretive Mission

The interpretive staff dedicated to Fort Raleigh National Historic Site would be increased by 0.9 full-time equivalent staff members that would allow for increased interpretive activities. In addition, a full-time historian would be hired to address research needs. Existing needs for interpretive activities include staffing the visitor center, presenting programs, conducting school tours, presenting education programs in local and area schools, roving the national historic site, developing interpretive products, and researching the history and resources of the national historic site. Visitors have expressed the desire to see ranger-led programming be expanded, and this would be possible with expanded staffing levels.

Under Alternative C the NPS would:

- Expand upon partnerships with other organizations and agencies (such as the First Colony Foundation, Roanoke Island Festival Park, and North Carolina Maritime Museum) to tell the various stories of the area.
- Use the results of expanded research to enhance interpretive programs and media on all national historic site interpretive themes, both natural and cultural.
- Implement the NPS researcher-in-the park program.
- Establish on-going archeological excavations with partner organizations.

Partnerships

Under Alternative C the national historic site would:

- Implement recommendations of the *Fort Raleigh National Historic Site*

Long-Range Interpretive Plan (NPS 2010a), which includes, among other recommendations:

- Improve partnership communication through regular communications meetings;
 - Work more closely with the Roanoke Island Historical Association to integrate interpretive programming throughout the site;
 - Work more closely with The Elizabethan Gardens to integrate interpretive programming and educational efforts on mutually suitable topics such as native plants and ecosystems;
 - Continue hosting the First Colony Foundation for archeological research within the national historic site and exploring safe and appropriate ways to interpret these activities for visitors; and
 - Establish regular communication between Fort Raleigh National Historic Site and Roanoke Island Festival Park in advance of their seasonal programming schedules to share ideas for improving the overall visitor experience on Roanoke Island.
- Expand partnerships with other historical and tourism-oriented organizations on Roanoke Island.
 - Continue and enhance the partnership with the First Colony Foundation, and others, for interpretive, archival, and research purposes.

- Develop new partnerships with research organizations, such as the University of North Carolina Coastal Studies Institute, that could provide research efforts on other national historic site cultural and natural topics (beyond the Roanoke Voyages).

Resource Conditions

Many elements of resource conditions would be the same as those described for Alternative A. In addition to those described under Alternative A, Alternative C would reduce heavily landscaped and maintained areas. The national historic site would restore these areas back to more natural conditions or convert them to low maintenance plantings.

Additional annual archeological investigations and data recovery would be conducted in the following locations: between the Elizabethan Gardens and the Dough Cemetery; between the Thomas Hariot trail and the Elizabethan Gardens; and at the Works Progress Administration camp. These areas have been investigated the least over the years and have the potential to yield information about island historical themes apart from the Roanoke voyages and the Lost Colony. These themes include the Native American culture, the Antebellum period, the Civil War, the Freedmen's Colony, and the Works Progress Administration camp. The national historic site would partner with other organizations to increase investigations, treatment, and conservation of cultural resources.

Under Alternative C, the NPS would also address compliance requirements for ground disturbing projects such as trails work, vegetation plantings, expansion of parking at headquarters (eight spaces), outdoor seating area, signage and waysides, and removal of the Prince and Beehive houses.

Response to Catastrophic Loss

Catastrophic loss is defined by the NPS as loss of resources or facilities due to storms, floods, earthquakes, fires, or other disasters of natural or man-made origin. Under Alternative C, the NPS would rebuild and protect existing facilities in place unless future extreme and/or successive catastrophic natural disasters warranted otherwise. However, resource management decisions due to shoreline erosion would be deferred to the shoreline erosion management plan and environmental assessment that is an element of all alternatives.

Estimated Costs and Staffing

The estimated costs to fully implement Alternative C provide a relative sense of the resources necessary to implement this alternative. The cost estimate is in year 2011 dollars and each item has been rounded to the nearest hundred dollars. Annual operating costs for Alternative C are estimated to be \$1,222,500. Operation and maintenance costs would increase compared to Alternative A because of the need to maintain new facilities. Annual staff costs would increase by the salary of 2.98 full-time equivalent staff positions. Because these positions would continue to be shared with Cape Hatteras National Seashore and the Wright Brothers National Memorial they represent a percentage of staff time at the national historic site and are therefore not a whole number. Additional staff would include a new interpretive national historic site guide, maintenance supervisor, law enforcement ranger, and a historian.

Other annual costs would include an annual archeological survey in response to the legislative mandate of Public Law 101-603 to undertake research on the history and archeology of the national historic site. Over time, some of this research may be funded by various partner organizations. These additional annual archeological surveys will be focused on the following areas:

Summary

- Between the Elizabethan Garden and the Dough Cemetery,
- Between the Thomas Hariot Trail and the Elizabethan Garden, and
- At the Works Progress Administration camp.

The NPS would continue to coordinate with the First Colony Foundation for on-going annual surveying. The NPS would seek other sources of funding including grants, partners, and other sources to help defray costs such as additional resource investigations, research, and outreach efforts.

One-time facility costs would include:

- New exhibits in the vicinity of the visitor center;
- Native plantings to screen the maintenance and headquarters areas;
- Expansion of parking at headquarters (eight spaces);
- Modification of the existing trail system north of Highway 64 with a native surface;
- Establishment of an outdoor seating area near the reconstructed earthworks;
- Installation of additional signs and waysides for the trail system north of Highway 64; and
- Removal of the Prince house and the Beehive house due to extreme shoreline erosion.

At this time, there are no anticipated non-facility costs under Alternative C.

ENVIRONMENTAL CONSEQUENCES

The process of determining environmental consequences included identifying the regulations and policies applicable to each impact topic, and then defining the methods to conduct the analysis. Impact thresholds for each impact topic are defined in terms of negligible, minor, moderate and major; and whether they would be short-term, long-term or permanent, and adverse or beneficial effects. Cumulative effects were also assessed. The impact analysis compared future conditions under potential new types of management practices (action alternatives) to future conditions that would occur if current management practices were to continue unchanged (Alternative A, No-action). Climate change and weather related conditions are addressed as part of the affected environment.

When compared to Alternative A, action Alternatives B and C provide enhanced protective measures by establishing management zones, enhanced visitor services and interpretation, opportunity for limited new recreational and interpretive trails, and increased partnering efforts that would provide beneficial effects.

The following is a summary of impacts. Future actions/ projects are subject to compliance with the National Environmental Policy Act, the National Historic Preservation Act and other appropriate laws and regulations. Future project environmental reviews will be site specific and address natural and cultural resources, visitor experiences, and park operations.

Impacts of Alternative A:

Although the Waterside Theatre area and Dough Cemetery shorelines would continue to be protected under Alternative A, the overall impacts of Alternative A on floodplains would result in long-term,

negligible, and adverse effects by allowing natural processes such as shoreline erosion to prevail in most areas, altering shoreline and floodplain functions. Under Alternative A, wetlands would benefit over the long-term due to protection as well as through the development of the Outer Banks Group shoreline erosion management plan and a technical assistance request made through the Natural Resource Program Center that would both provide direction for future wetland management. Continuation of existing national historic site management practices would benefit federally and state listed species of concern over the long- and short-term.

Impacts of Alternative A on vegetation communities would be both long-term beneficial and long- and short-term, negligible to minor, and adverse. Vegetation resources would benefit from development and implementation of management plans which would improve management efforts of the Fort Raleigh Maritime Forest Significant Natural Heritage Area and other natural communities. Invasive plant control measures would also continue. However, visitor-created trails and trampling of vegetation are likely to occur near points of interest, though these impacts would be minimal and localized. Demolition of the Prince and Beehive houses may cause temporary adverse impacts to surrounding vegetation, however these impacts would be largely reduced as these areas are returned over time to a more natural state.

With continuance of existing management practices into the future, two primary factors—human actions and natural processes—would contribute to permanent, negligible to minor adverse effects on the national historic site’s archeological resources from loss of data and sites or diminished site integrity. Adverse effects would be permanent because cultural resources are nonrenewable, and once damaged or lost, cannot be restored. Meanwhile, visitor education and national

historic site management actions would result in long-term beneficial impacts.

Under Alternative A, there would be long-term beneficial impacts to ethnographic resources, the cultural landscape, and museum collections. Under an approved and funded project included in all alternatives, new exhibits would be designed and installed at the visitor center. These exhibits and enhanced interpretation would serve to strengthen associations of people to ancestors connected to events and historical eras. Furthermore, these improvements to the display and interpretation of museum collections would help ensure the “well-being” and long-term preservation of data and archival materials while improving the usefulness of the collection. An ethnographic overview and assessment would be completed to formally identify and document the ethnographic resources associated with the national historic site, resulting in long-term, beneficial effects associated with increased knowledge concerning these resources. Possible targeted shoreline erosion control measures to protect Dough Cemetery and, possibly, invasive species control measures would benefit the cultural landscape.

Historic structures would be impacted in both long-term, beneficial and permanent, negligible, adverse ways. Historic structures would generally remain as they exist now, undergoing routine maintenance (to arrest deterioration) with no substantial impact to their historic fabric, integrity, or character-defining features which would be a benefit. However, historic structures would be adversely affected by typical effects of aging and natural processes, and occasional disturbance from visitor use at the reconstructed earthworks. Past, on-going, and future NPS cultural resource management plans, the long-range interpretive plan, and other management plans for the Outer Banks Group and for Fort Raleigh National Historic Site would continue to benefit historic structures by providing park staff with the framework and

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guidance necessary to ensure continued, proper identification, evaluation, treatment, and interpretation of the historic structures within the national historic site.

The overall impact of Alternative A on visitor use and experience would be long-term, minor to moderate, adverse. Although management plans, ongoing programs and events, and expanded interpretive themes would be beneficial, traffic and parking constraints would increase due to popularity and interpretive activities would be limited as there would be no increases in interpretive staff. This would continue to challenge the ability of the existing staff to address this growing need. Additionally, the current staffing level is inadequate to conduct sufficient outreach to potential partners and to subsequently develop partnering agreements that would increase and enhance resource protection and interpretive programs, materials, and signage. Continued management actions under Alternative A would have an overall long- and short-term, moderate, adverse effect on national historic site operations due to increased workload demands and expectations on the current staffing level.

Impacts of Alternative B:

Under Alternative B, there would be long- and short-term, negligible, adverse effects to floodplains. Planned construction activities would avoid floodplains where possible. Mitigation measures would be applied if other management considerations exist which clearly favor locating an action in a regulatory floodplain, such as shoreline protection structures. There would be long- and short-term beneficial impacts to wetlands, species of concern, and vegetation. These natural resources would benefit from continued, existing resource management efforts and establishment of management zones that would reduce adverse impacts caused by new trail and facility development. Proposed increases in national historic site staff under Alternative B would allow for increased interpretation,

maintenance, and enforcement to ultimately reduce visitor impacts on vegetation and natural communities.

Similar to Alternative A, the continuance of existing management practices into the future, two primary factors—human actions and natural processes—would contribute to permanent, negligible to minor adverse effects on the national historic site’s archeological resources from loss of data and sites or diminished site integrity. Meanwhile, visitor education and national historic site management actions would result in long-term beneficial impacts. Much of the national historic site would be included in a Resource Preservation Zone, which would provide for increased emphasis on resource preservation by avoiding future ground disturbance within the management zone. Proposed project area(s) would undergo collaborative cultural resource investigations prior to ground-disturbance and results of the investigations would help guide precise locations and design of new facilities to ensure resource protection.

One additional archeological investigation would be conducted at the national historic site under Alternative B. These would lead to long-term, beneficial impacts because additional archeological sites could be identified, and because subsequent research and analyses could substantially add to both the regional and national knowledge of the people, places, and events associated with the history of the area.

There would be long-term beneficial impacts to ethnographic resources, the cultural landscape, and museum collections. Emphasis would be placed on an expanded interpretive mission that would likely strengthen existing linkages and relationships of visitors to ancestors connected to events and historical eras. An ethnographic overview and assessment would be completed to formally identify and document the ethnographic resources associated with the national historic site, resulting in long-term, beneficial effects

associated with increased knowledge concerning these resources. Targeted shoreline erosion measures to protect Dough Cemetery would be included in Alternative B resulting in a long-term, beneficial impact to this contributing element of the cultural landscape. Proposed new construction projects under Alternative B would neither affect topography nor appreciably alter the landscape's spatial organization, land use patterns, historic structures, circulation systems, or views and vistas. Under an approved and funded project, new exhibits for the visitor center would be designed and installed. These improvements to the display and interpretation of museum collections would help ensure the "well-being" and long-term preservation of data and archival materials while improving the usefulness of the collection. In addition, the aforementioned archeological investigations could increase holdings within the collection.

Similar to Alternative A, historic structures would be impacted in both long-term beneficial and permanent, negligible, adverse ways. Historic structures would generally remain as they exist now, undergoing routine maintenance (to arrest deterioration) with no substantial impact to their historic fabric, integrity, or character-defining features which would be a benefit. However, historic structures would be adversely affected by typical effects of aging and natural processes, and occasional disturbance from visitor use at the reconstructed earthworks. Management plans would continue to benefit historic structures by providing park staff with the framework and guidance necessary to ensure continued, proper identification, evaluation, treatment, and interpretation of the historic structures within the national historic site. Historic structures within the Resource Preservation Zone would be somewhat better protected from possible effects of any future activity than under Alternative A.

Visitor use and experience would be benefited over the long-term under Alternative B. All the studies and planning efforts to provide improved access, safety, and visitor orientation on Roanoke Island would be the same as described in Alternative A. In addition, expanded interpretive efforts, facilities, partnering, and availability of food services would retain more visitors on-site. Increased staffing levels, expanded partnerships, and potential use of the Arts-in-Parks program would provide increased opportunities to improve and maintain visitor satisfaction by addressing the issues identified during scoping.

The establishment of management zones under Alternatives B would provide effective means to improve operations by aiding national historic site staff in decision-making, resource management, and enforcement. Additional staffing proposed under Alternative B would provide the necessary maintenance efforts to implement resource plan recommendations resulting in overall long- and short-term, beneficial effects to park operations and facilities.

Impacts of Alternative C:

Alternative C would have long- and short-term, negligible, adverse effects on floodplains. Planned construction activities would avoid floodplains where possible. Mitigation measures would be applied if other management considerations exist which clearly favor locating an action in a regulatory floodplain, such as shoreline protection structures which must be located in the floodplain.

There would be long- and short-term beneficial impacts to wetlands, species of concern, and vegetation. These natural resources would benefit from continued, existing resource management efforts and establishment of management zones that would reduce adverse impacts caused by new trail and facility development. Alternative C would also reduce heavily landscaped and maintained areas, and

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allow these areas to return back to natural conditions or convert them to low maintenance plantings. Proposed increases in national historic site staff under Alternative C would allow for increased interpretation, maintenance, and enforcement to ultimately reduce visitor impacts on vegetation and natural communities.

Alternative C would emphasize research on the history and archeology of the national historic site and the associated peoples and events. Alternative C would provide a greater degree of protection of cultural resources than Alternative A by enhancing partnerships to collaboratively protect and preserve these resources at a greater capacity than the national historic site can do alone. Under Alternative C, formalized programs and directional signs would help reduce the potential for creation of informal trails, resulting in fewer incidents of unauthorized collecting and erosion of off-trail areas. Designation of the majority of the national historic site as a Resource Preservation Zone would provide for a greater emphasis on resource preservation compared to Alternative A by avoiding future ground disturbance within the management zone. The actions listed above would all have long-term, beneficial impacts on archeological resources. Proposed project area(s) would undergo collaborative cultural resource investigations prior to ground-disturbance and results of the investigations would help guide precise locations and design of these new facilities to ensure resource protection; therefore, any new construction activities may have permanent, negligible to minor, adverse impacts on archeological resources. Additional annual archeological investigations would be conducted at the national historic site under Alternative C. These would lead to long-term, beneficial impacts because additional archeological sites could be identified, and because subsequent research and analyses could substantially add to both the regional and national knowledge of the people, places, and events associated with the history of

the area. It is anticipated that permanent, adverse impacts to archeological resources resulting from new construction activities under Alternative C would be negligible to minor. Known archeological sites would continue to be monitored and on-going archeological excavations with partner organizations would be established to broaden the national historic site's knowledge base and increase awareness and stewardship. The addition of an NPS historian would be beneficial to all cultural resource areas.

Under Alternative C, there would be greater long-term beneficial impacts to ethnographic resources, the cultural landscape, and museum collections than with Alternative A. Research on the history and archeology of the national historic site and the associated peoples and events would be emphasized. A greater reliance on partnerships and the addition of a historian to the staff would provide opportunities to create closer links with African Americans and Native Americans who have cultural ties to the area. An ethnographic overview and assessment would be completed to formally identify and document the ethnographic resources associated with the national historic site, resulting in long-term, beneficial effects associated with increased knowledge concerning these resources. Possible targeted shoreline erosion measures to protect Dough Cemetery would be included in Alternative C resulting in a long-term, beneficial impact to this contributing element of the cultural landscape. The proposed construction of new walking trails and a small outdoor seating area near the reconstructed earthworks would not appreciably alter overall vistas, historic structures, or circulation patterns that are included in the cultural landscape. Improved signage and interpretive programs would provide additional information to visitors that would instill greater stewardship of cultural resources. These actions would result in long-term beneficial impacts to the cultural landscape. Heavily landscaped and maintained areas would be reduced in

size and affected areas would be restored to natural conditions or converted to low maintenance plantings; because this would result in a reduction of Mission 66-era vegetative plantings, considered a contributing element of the cultural landscape, this action would have a long-term, minor, adverse impact on the cultural landscape. Under an approved and funded project, new exhibits for the visitor center would be designed and installed. These improvements to the display and interpretation of museum collections would help ensure the “well-being” and long-term preservation of data and archival materials while improving the usefulness of the collection, providing long-term benefits. In addition, planned archeological investigations could increase holdings within the collection. Expanded education, research and interpretive activity and increased partnering would improve the use of the collections and sharing of resources, knowledge and appreciation of museum collections. These actions would result in long-term benefits to these cultural resources.

Similar to Alternative A, historic structures would be impacted in both long-term beneficial and permanent, negligible, adverse ways. Historic structures would generally remain as they exist now, undergoing routine maintenance (to arrest deterioration) with no substantial impact to their historic fabric, integrity, or character-defining features which would be a benefit. However, historic structures would be adversely affected by typical effects of aging and natural processes, and occasional disturbance from visitor use at the reconstructed earthworks. Past, on-going, and future NPS cultural resource management plans, the long-range interpretive plan, and other management plans for the Outer Banks Group and for Fort Raleigh National Historic Site would continue to benefit historic structures by providing park staff with the framework and guidance necessary to ensure continued, proper identification, evaluation, treatment,

and interpretation of the historic structures within the national historic site. However, partnerships would provide additional resources that would benefit historic structures through enhanced stewardship and increased educational awareness of historic structures within the national historic site.

Under Alternative C, there would be long- and short-term beneficial impacts to visitor use and experience as well as park operations and facilities. Visitor activities would continue to be centralized at the Lindsay Warren Visitor Center. Management plans, ongoing programs and events, and expanded interpretive themes would continue to provide benefits by providing better access, safety, and visitor orientation. There would be increased opportunities for visitors to interact with archeologists, historians, and researchers at the national historic site via increased research efforts and collaborative partnering as well as increased NPS staffing. A small outdoor seating area and creation of interpretive trails with themed areas would be established which would be a long- and short-term benefit to visitor experience, but would cause short-term, minor, adverse impacts to national historic site staff during construction activities.

The establishment of management zones under Alternatives C would provide effective means to improve operations by aiding staff in decision-making, resource management, and enforcement, providing long-term benefits. Increased opportunities within the national historic site under Alternative C would likely increase visitation. Thus, visitor use of new trails would increase maintenance and enforcement efforts over the long-term. While construction of limited new facilities (such as the expansion of parking at headquarters [eight spaces]) and demolition of the Prince and Beehive houses would create a greater demand on staff in the short-term, additional law enforcement and maintenance staff would reduce increased staffing demand associated with

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peak summer visitation and new facilities; long-term maintenance demands would be reduced, with long-term, beneficial effects. Resources would be made available to cooperatively address operational needs through increased partnering with local historical, research, and tourism-oriented organizations.

THE NEXT STEPS

After distribution of this *Draft General Management Plan / Environmental Impact Statement* there is a 60-day public review and comment period. After the comment period ends, the NPS planning team will evaluate all input received regarding the draft plan and incorporate any resulting changes into a *Final General Management Plan / Environmental Impact Statement*. Following distribution of the final plan and a 30-day no-action period, a record

of decision is prepared for the signature of the NPS regional director documenting the NPS selection of an alternative for implementation. Although this document provides the analysis and justification for future proposals at Fort Raleigh National Historic Site, this plan does not guarantee future NPS funding. Many actions would be necessary to achieve the desired conditions for natural resources, cultural resources, recreational opportunities, and facilities as envisioned in this plan. The NPS would seek funding to achieve these desired conditions. Fort Raleigh National Historic Site managers would continue to pursue other options, including expanding the service of volunteers, drawing upon existing or new partnerships, and seeking alternative funding sources, including the philanthropic community. This general management plan / environmental impact statement provides the framework from which these choices and decisions would be made.

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