

**National Park Service
U.S. Department of the Interior**



Cape Hatteras National Seashore

**Finding of No Significant Impact
Cape Hatteras Lighthouse Repair and Landscape Improvement Project**

September 2022

Recommended:

A handwritten signature in black ink, appearing to read "D. Hallac", written over a horizontal line.

David E. Hallac
Superintendent
National Parks of Eastern North Carolina

9/30/2022

Date

Approved:

Mark A. Foust
Regional Director
Interior Region 2, South Atlantic – Gulf

Date

INTRODUCTION

The National Park Service (NPS) prepared an environmental assessment (EA) to evaluate the impacts of repairing the Cape Hatteras Lighthouse (the Lighthouse) and implementing landscape improvements at the Cape Hatteras Light Station (the light station) at Cape Hatteras National Seashore. The purpose of this project includes the following: (1) rehabilitate the interior and restore the exterior of the Lighthouse (including its character-defining features), (2) repair or replace deteriorated materials and finishes, and (3) selectively reverse non-sympathetic treatments added to the Lighthouse and the Oil House after 1920. Additionally, the project includes mitigating impacts to the landscape resulting from high visitation levels as well as providing a more immersive experience at the Cape Hatteras Light Station (the light station). This will be achieved through defining pedestrian circulation patterns and considering ways to improve the resiliency of the light station and grounds through use of design and materials suited to a coastal environment that is subject to heavy visitation.

The EA and this finding of no significant impact (FONSI) have been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended [42 United States Code (USC) 4321 et seq] and the 2020 Council of Environmental Quality National Environmental Policy Act (NEPA) implementing regulations of the Council on Environmental Quality (CEQ) [40 Code of Federal Regulations (CFR) 1500-1508]; the Department of the Interior NEPA regulations (43 CFR Part 46); and NPS Director's Order (DO) 12: *Conservation Planning, Environmental Impact Analysis and Decision-making* (DO-12) and the accompanying NPS NEPA Handbook. The statements and conclusion reached in this FONSI are based on the documentation and analysis provided in the EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated by reference below. As required by NPS *Management Policies 2006*, a finding of non-impairment is included as attachment A.

NPS SELECTED ALTERNATIVE

In May 2022, the NPS released the *Cape Hatteras Lighthouse Repair and Landscape Improvement Project Environmental Assessment* (EA) that evaluated alternatives to rehabilitate the interior and restore the exterior of the Lighthouse as well as implement landscape improvements. The EA described three alternatives: a no-action alternative and two action alternatives. The EA then analyzed the potential impacts these alternatives would have on the light station's natural and cultural resources as well as the human environment.

Selected Alternative Description

The alternative selected by the NPS for implementation is Alternative C: Circulation Enhanced and Lens Replicated (Proposed Action / NPS Preferred Alternative), as described on pages 16-19 and shown on Figure 5 of the EA. The following summarizes the NPS selected alternative; see the EA for full details.

Under the selected alternative, the NPS will rehabilitate the Lighthouse interior and restore the Lighthouse exterior in accordance with Secretary of the Interior *Standards for the Treatment of Historic Properties*, including repair or replacement of the character-defining features and deteriorated and damaged elements. Some modern, non-sympathetic treatments, materials, and finishes will be reversed. Actions at the Lighthouse will include repairing and repointing masonry, removing corrosion and repairing metal elements, removing the metal weight track from the Lighthouse, repairing or replacing doors and windows, cleaning and repairing metal hardware elements, installing a new railing and balustrade using a non-corrosive metal on the lantern balcony, and repairing cracked marble floor tiles.

The existing rotating light beacon and metal platform will be removed from the Lighthouse lantern. A replica of the original First-Order Fresnel lens will be produced and installed in the Lighthouse. The replica lens will be constructed of a metal frame and panels with machined acrylic prisms and bullseye lenses. It will be the same size and overall appearance as the original, but a modern light source, such as

an LED source, will be used inside the lens. The beacon will either be a fixed flashing light or will rotate and flash through the bullseye prisms as it did historically.

At the Oil House, the NPS will rehabilitate and repair the building to ensure its structural stability, restore missing features, and remove non-sympathetic modern intrusions. Actions will include repointing and repairing masonry, connecting the top sill plate to the wall and clipping down rafters, repainting the interior brick walls, infilling the window openings with brick, replacing the modern six-panel door with a non-corrosive metal door, and removing the non-sympathetic modern external shade canopy.

The existing vinyl perimeter fence around the Lighthouse will be removed. A replica of the original (pre-1920) decorative metal octagonal fence with granite bases will be constructed based on documentary research and material samples in NPS storage. The new fence will be constructed of a painted, non-corrosive material. A replica stockade fence will be added around both the Principal Keeper's Quarters and Double Keepers' Quarters to match the look and feel of the original landscape of the early historic period (1870-1890s). This fence will be installed in a rectangular shape around both buildings with a wide buffer of lawn grasses surrounding the dwellings.

Under the selected alternative, actions will be implemented on the landscape to improve pedestrian circulation, wayfinding, interpretation, and the visitor experience. A new visitor entrance will be created to the north of the existing bookstore to foster a one-way pedestrian circulation pattern. A new pedestrian walkway (either concrete or alternative materials) will be created throughout the site to circulate visitors between the keepers' quarters and the Lighthouse and to discourage visitors from walking on and damaging the landscape. This walkway will be up to 12 feet wide and will be constructed of either concrete (tinted so the color blends with the browns and grays in the native soil and textured with a brush finish) or an alternative material such as a soil consolidant (using native soil) to lessen the visual impact of the walkways within the setting of the light station. The proposed walkways will be graded to shed water away from the surfaces to minimize standing water on and around walkways during heavy storm/rain events. The existing reconstructed brick paver walkway will be widened to 7 feet to match the 7-foot width of the sidewalk within the lighthouse fence and accommodate the large number of visitors at the site.

To further discourage visitors from walking off of established paths, a contoured landscape will be created with native landscape plantings 1-3 feet high in strategic locations. The landscape will be revegetated throughout the site with native grasses; lawn grasses will be re-established within the proposed fences around the Lighthouse and the keepers' quarters.

Interpretive wayside panels will be added in key locations throughout the landscape. These panels will describe important cultural resources within the project area and tell the story of the light station. Interpretive panels will be used to convey the history of changes to the buildings and landscape that occurred during and after the period of restoration (1870-1920).

A new shade pavilion will be constructed to accommodate visitors waiting near the Lighthouse. The pavilion will be located to the north of the Lighthouse and Oil House, set behind the tree line within the wooded maritime forest to reduce the visual intrusion it will have on the landscape. It will be an open-air shelter with benches to provide areas for visitors to sit. To provide another opportunity for visitors to rest in the shade, the Keepers of the Light Amphitheater will be disassembled and the blocks relocated along the perimeter of the proposed western walkway. The blocks will be placed along the path and tucked under the maritime forest canopy to provide a chronology of lighthouse keepers and provide respite to visitors from the hot sun.

RATIONALE FOR DECISION

The NPS selected Alternative C: Circulation Enhanced and Lens Replicated for implementation because it will ensure the restoration and protection of the historic character and appearance of historic structures

and the cultural landscape of the light station while also improving the visitor experience through additional accommodations. The rehabilitation of the interior and restoration of the exterior of the Lighthouse will repair or replace deteriorated materials and finishes and will reverse some non-sympathetic treatments added to the Lighthouse after 1920. Similarly, the selected alternative will ensure the preservation of the Oil House and will reverse non-sympathetic modern intrusions such as the exterior shade canopy. The selected alternative will also improve the sustainability of the historic structures through the use of non-corrosive metal elements that can better withstand long term exposure to a marine environment than can the existing metal elements. The selected alternative will also restore and preserve the historic character of the landscape by providing new walkways with larger capacity to handle the heavy visitation of the site. These walkways, combined with landscape contours and plantings will discourage visitors from walking off of the established walkways and will protect the landscape from degradation due to heavy foot traffic. The selected alternative will provide much-needed visitor accommodations in an area subject to increasing visitation and warming summers. The new walkways, shade structure, and seating along the fringes of the forest will improve visitor convenience and provide a more enjoyable way to experience the light station.

MITIGATION

Under its Organic Act, the NPS has the authority to develop and direct mitigation for impacts to resources under its jurisdiction. This is in addition to the requirements that may be created through the need to comply with laws and regulations managing resource impacts that are overseen by other agencies. To meet these obligations, the NPS has developed Management Policies and Director's Orders that identify the authorities (laws, regulations, and executive orders) directing how impacts and mitigation to resources shall be managed, as well as identify the policies and procedures by which the NPS shall comply with these authorities. A full listing of the NPS policies is available from the NPS Office of Policy website at: <https://npspolicy.nps.gov/index.cfm>.

To avoid, minimize, and mitigate impacts related to the selected alternative, the Seashore will commit to the following measures during planning and implementation of the Cape Hatteras Lighthouse Repair and Landscaping project. Subject to the final designs and approval of plans by relevant agencies, mitigation measures will include, but will not be limited to the items listed below. The NPS will review site specific designs and consult with Resource Management and Compliance staff to determine the appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and are achieving their intended results.

- Instruct all personnel engaged in project activities on the sensitivity of working within a National Historic Landmark and activities will be monitored in order to mitigate and minimize potential impacts on natural and cultural resources during construction. Corridors for construction vehicle movement will be established and defined on the ground. Staging of construction equipment will be restricted to the road corridor, parking lots, and other identified previously disturbed areas to avoid impacts on natural and cultural resources.
- Clearly state all protection measures in the construction specifications and instruct workers to avoid conducting activities beyond the fenced construction zone.
- Use the minimum size equipment needed to complete the proposed project. Hand digging and other minimally intrusive methods may be specified to minimize damage to historic properties and trees.
- During final design and construction, the NPS will follow the recommendations contained in the *Cape Hatteras Lighthouse Historic Structure Report*, the *Hatteras Light Station Oil House Historic Structure Report*, the *Cape Hatteras Light Station Cultural Landscape Report*, and the *Secretary of Interior's Standards for the Treatment of Historic Properties* to ensure rehabilitation and restoration measures, as well as all proposed new features on the landscape, do not adversely affect historic buildings and structures and cultural landscapes.

- The visual intrusion of new sidewalks will be minimized due to the use of a colored brushed concrete, or a soil consolidant with native soil that is compatible with the setting
- To mitigate the impact of introducing elements that did not exist together in history and avoid creating a false sense of history at the site, interpretive wayside panels will be installed to convey the changes that have occurred at the light station over time, including changes made as a result of project actions.
- Implement standard noise abatement measures during construction. Standard noise abatement measures could include the following elements: a schedule that minimizes impacts on adjacent noise-sensitive uses (construction and demolition work will be limited to daylight hours in the project area to avoid night-time noise disruption), the use of the best available noise control techniques wherever feasible, the use of hydraulically or electrically powered impact tools when feasible, and location of temporary noise sources as far from sensitive uses as possible. Construction equipment will be properly maintained to minimize noise.
- When possible, construction should be performed over the late fall and winter months when visitation is lowest in order to minimize the impact on the visitor experience.
- To minimize possible fluid leaks from construction equipment, the contractor will regularly monitor and check construction equipment to identify and repair any leaks.
- Demolition and construction contractor(s) will implement best management practices, such as appropriately handling and disposing of packing materials and other debris to ensure it does not mobilize beyond the construction limits.
- All construction debris will be properly disposed of in an approved landfill.
- To minimize the amount of ground disturbance, staging and stockpiling areas shall be located in previously disturbed sites, away from visitor use areas to the greatest extent possible. All staging and stockpiling areas shall be returned to pre-construction conditions following construction.
- Erosion control measures, such as limiting the time soil is left exposed, erosion matting, and silt fencing or coir logs, shall be installed around the limits of construction as appropriate to reduce erosion, surface scouring, and discharge to water bodies. Erosion control features must be maintained throughout the project and removed after revegetation is established. The erosion control measures shall meet the federal, state, or local regulations governing the project site.
- A sediment control erosion plan will be prepared and submitted to the state. Sediment Control in North Carolina is governed by the Sedimentation Pollution Control Act of 1973. The Act requires anyone involved in a land disturbing activity of one acre or more to submit an erosion and sediment control plan to the Land Quality Section of the North Carolina Department of Environmental Quality for approval.
- Implement measures to prevent invasive plants from entering construction areas, such as ensuring that construction-related equipment arrives at the site free of mud or seed-bearing materials and certifying that all seeds and straw material are weed-free.
- Remove invasive plants that may have entered construction areas using approaches prescribed in the Seashore's Integrated Pest Management Program.
- Rehabilitate areas that are disturbed, either during construction or areas that were previously disturbed, with NPS-approved vegetation, as per NPS standards and consistent with the cultural landscape report.
- Immediately implement National Historic Preservation Act (NHPA) Section 106 procedures if any unknown significant archeological resources are uncovered during ground-disturbing activities. If previously unknown archeological resources are discovered during construction, all work in the immediate vicinity of the discovery shall be halted until the resources are identified and documented and an appropriate mitigation strategy developed, if necessary, in accordance with pertinent laws and regulations, including the stipulations of the 2008 Programmatic Agreement Among the Seashore (US Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.

- Time removal of trees that fit the criteria of providing bat roosting habitat to avoid the bat roosting season from May 1–July 31. The Seashore’s Resource Management and Science Division will be consulted prior to taking action to identify suitable roosting habitat.
- Project will abide by best management practices regarding avoidance of tree damage. Trees not being removed will have fencing established to prevent vehicle damage to main stem and soil compaction to root systems. Tree roots which may be impacted due to below grade work, will be hand-pruned.
- Follow the Seashore’s Severe Weather Plan in the event of severe weather during construction to minimize the risk to human health and safety as well as to minimize potential property damage.

OTHER ALTERNATIVES CONSIDERED

In addition to the NPS selected alternative described above, the EA also analyzed a no-action alternative (pages 13-14 of the EA) and another action alternative (pages 13-16 of the EA).

FINDING OF NO SIGNIFICANT IMPACT

As described in chapter 3 of the EA, the NPS selected alternative will result in impacts on park resources, including impacts to historic structures, cultural landscape, and visitor use and experience. No significant impacts were identified that require analysis in an environmental impact statement. The anticipated impacts to the affected resources are summarized below. See pages 26-46 of the EA for complete discussions of the impacts on these resources.

Historic Structures. The selected alternative will result in beneficial changes to historic structures. Beneficial impacts will result from restoring the historic setting and appearance of the historic structures at the light station. Repairing damaged and deteriorated elements of the Lighthouse and Oil House and removing non-sympathetic modern elements will restore and protect the historic character and appearance of the historic buildings. Replicating the original First-Order Fresnel lens will restore the historic appearance and function of the lantern during the Lighthouse’s National Historic Landmark period of significance (1870-1936).

Changes to the landscape contours and plantings will create a more naturalized feel for the cultural landscape, which is similar to the native grasses planted by the CCC at the historic location in the 1930s. Interpretive wayside panels with images of the historic appearance of the light station will be added to inform visitors of changes to the site over time. The new walkways and contoured landscape will result in protection of the landscape from damage due to heavy foot traffic, which will protect the overall character of the recreated historic setting in the long term. All new walkways and the contoured landscape or plantings will be designed to not obscure views of or from the Lighthouse or other historic structures.

In the future, if the keepers’ quarters buildings are elevated as part of a separate project, impacts will occur to these historic structures in addition to the impacts occurring from this restoration and rehabilitation project. This separate project would change the look of the historic buildings due to the raised elevation of the structure. However, completing a project to raise the buildings would result in a beneficial impact on historic structures due to the protection of the buildings from future flood damage. If the separate project to raise the keepers’ quarters buildings is implemented, it would complement the restoration and rehabilitation project by continuing to protect the historic structures and make them more resilient to future flooding.

Cultural Landscape. Under the selected alternative, the new walkways and contoured landscape will result in protection of the landscape from damage due to heavy foot traffic, which will protect the overall character of the cultural landscape in the long term. The contoured landscape and native grasses will create a more naturalized feel for the site, which is similar to the native grasses planted by the CCC at the historic location in the 1930s. Interpretive wayside panels with images of the historic appearance of

the light station will be added to inform visitors of changes to the site over time. The new interpretive panels proposed along the pedestrian trails will be designed to stand at a height that will not obstruct important views and will be sited in areas so as not to intrude on the cultural landscape. The new walkways and the contoured landscape or plantings will be designed to not obscure views of or from the Lighthouse or other historic structures.

The new shade structure will introduce a non-historic element along the periphery of the cultural landscape. However, impacts from this new structure will be mitigated by locating the structure within the wooded area and using the vegetation to visually screen it from the cultural landscape. Moving the Keepers of the Light Amphitheater stones from their current location to the edge of the maritime forest and tucked under trees will result in a beneficial impact to the cultural landscape. This change will allow the original below-ground foundation stones to maintain their connection at the Lighthouse while remaining unintrusive upon the open viewshed.

Raising the keepers' quarters buildings under a separate project would change the look of the historic buildings that contribute to the cultural landscape due to that the new elevation. However, completing this project would result in a beneficial impact on the cultural landscape due to the protection of the buildings from future flood damage. Replacing the geothermic HVAC system would result in temporary adverse impacts to the cultural landscape because excavating outdated elements would disturb the area. However, once the system was removed, the landscape would be restored to its condition prior to the excavation. If these separate projects are implemented, they would complement the restoration and rehabilitation project by continuing to protect the cultural landscape and improving its resiliency.

Visitor Use and Experience. Implementation of the selected alternative will result in a beneficial impact on visitor use and experience overall, though it will also result in some temporary adverse impacts during construction. The visitor experience will be improved by the rehabilitation and repair of the Lighthouse and Oil House because it will restore historic integrity of design and feeling to these structures, allowing visitors to experience them closer in appearance to their historic setting, enabling them to learn more during their visit. Replicating and installing a new lens in the Lighthouse will restore the historic appearance of the lantern, as well as its function if it rotates as it historically did, which will improve visitors' experience by allowing them to view the beacon as it originally operated.

The establishment of a new visitor entrance will create more intuitive wayfinding and reduce congestion in the vicinity of the bookstore, dispersing visitors more effectively throughout the site, especially during times of peak visitation in the summer when crowding is at its highest. The new pedestrian circulation walkway will connect visitors to more areas of the site than do the existing paths, improving visitors' options for fully touring the light station. The walkway will also provide additional pedestrian capacity and discourage visitors from walking off of the path. This will protect the vegetation from heavy foot traffic and improve the aesthetics by limiting new bare spots inadvertently created by visitors.

Vegetation changes and changes to the contours of the landscape under the selected alternative will work in conjunction with the new paths to discourage visitors from walking off of the established paths and further protect the aesthetics of the landscape. The contours and plantings will be low enough (1-3 feet high) to not obstruct any views of or from the Lighthouse. Landscape changes will also help reduce pooling around walkways during heavy rain/storm events, which will improve the visitor experience.

New wayside sign panels will improve visitors' understanding of the light station's history, contributing to a more immersive experience as compared to the current experience with a lack of panels explaining the site's story. Changes to views resulting from the panels will be minimal considering the open nature of the site relative to the height of the panels, and because the panels will be designed and placed to minimize any visual obstruction.

Overall visitor comfort will be improved through the addition of a shade structure with benches, as well as through the relocation of the Keepers of the Light Amphitheater stones to the edge of the maritime

forest tucked under trees. These changes will provide opportunities to rest in shaded areas, especially during peak seasons of heat when temperatures regularly exceed 90 degrees Fahrenheit.

Construction activities will have temporary adverse impacts on the visitor experience. These activities will require closures of specific areas and will add visual and noise disturbances at the site. However, these impacts will be temporary and will cease at the completion of construction activities. NPS will consider the impact on visitor use and experience when planning for construction activities, particularly if multiple areas of the light station would be closed at the same time.

Other reasonably foreseeable projects (i.e., the Lighthouse Road Multi-Use Path project, raising the keepers' quarters, and replacing the geothermic HVAC system) would enhance visitor use and experience in the long term by protecting the keepers' quarters and providing new interpretive connections and experiences. The Lighthouse Road Multi-Use Path project would result in a beneficial impact on visitor use and experience due to additional opportunities for visitors to access and experience the project area and surrounding sites. Furthermore, improved access to the old Lighthouse site would improve visitors' connection to and interpretation of the Lighthouse's story. This multi-use path would also provide an alternative form of transport for visitors and residents wanting to visit the project area, especially during peak months when traffic on NC 12 gets heavy. Raising the keepers' quarters buildings would change the look of the historic buildings; however, protecting the buildings from future flood damage would help preserve them for future generations, which maintain the visitor experience. Removal or replacement of the geothermal elements buried at the site may temporarily diminish visitor use and experience at the site during site excavation due to restricted access to portions of the site; however, there would be no changes in visitor use and experience from this project in the long term. If these separate projects are implemented, they would complement the restoration and rehabilitation project by improving the overall visitor experience of the light station.

AGENCY CONSULTATION

During the NEPA process, the park contacted the following agencies and Tribes for consultation:

- Agencies
 - National Historic Landmarks Program
 - North Carolina Division of Coastal Management
 - North Carolina State Historic Preservation Officer
- Tribes
 - Absentee Shawnee
 - Catawba Indian Nation
 - Eastern Shawnee
 - Shawnee
 - Tuscarona Nation
 - United Keetoowah Band of Cherokee

As required by Section 106 of the NHPA, the park consulted with the Advisory Council on Historic Preservation, North Carolina State Historic Preservation Office, and associated Tribes to assess the effect of the project on historic properties. The Section 106 consultation process was conducted separately from but concurrently to the NEPA process. The NPS concluded that the undertaking would result in *no adverse effect* on historic properties. In a letter dated August 16, 2022, the North Carolina State Historic Preservation Officer concurred with this finding and provided considerations for project design and implementation. The NPS will continue consultation as appropriate during project implementation.

As required by Section 7 of the Endangered Species Act, the NPS considered impacts on federally listed species. Based on a review of the project area and the federally listed species known to occur in the vicinity of the project area, NPS staff determined that project activities would have no effect on threatened or endangered species. There are no critical habitats for threatened and endangered species within the vicinity of the project area. Therefore, no formal consultation with the US Fish and Wildlife Service is required under Section 7 of the Endangered Species Act.

As required by the Coastal Zone Management Act and the North Carolina Coastal Area Management Act, the NPS completed a Federal Consistency Determination to assess the project's consistency with these acts. The Seashore consulted with the North Carolina Division of Coastal Management through this process. In an email dated May 31, 2022, the North Carolina Division of Coastal Management concurred with the NPS finding that the proposed actions are fully in conformity and consistent to the maximum extent practicable with the standards and management objectives and enforceable policies of Subchapters 7H and 7M of Chapter 7 in Title 15A of the North Carolina Administrative Code. A copy of the Federal Consistency Determination is available in appendix B of the EA.

CONCLUSION

The NPS selected alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement and as noted above, impacts resulting from implementing the action will not have a significant effect on the human environment. Based on the foregoing, it has been determined that an environmental impact statement is not required for this project and thus will not be prepared.

ATTACHMENT A: NON-IMPAIRMENT DETERMINATION

By enacting the National Park Service (NPS) Organic Act of 1916 (Organic Act), Congress directed the US Department of Interior and the National Park Service to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (54 USC 100101). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that the National Park Service must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (54 USC 100101).

The NPS *Management Policies 2006*, Section 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the NPS. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The *Cape Hatteras Lighthouse Repair and Landscape Improvement Project Environmental Assessment* (EA) analyzes impacts to the following resources: historic structures, cultural landscape, and visitor use and experience. NPS *Guidance for Non-Impairment Determinations and the NPS NEPA Process* states that:

The impairment determination does not include discussion of impacts to visitor experience, socioeconomics, public health and safety, environmental justice, land use, park operations, etc., as those do not constitute impacts to park resources and values subject to the non-impairment standard.

As a result, for purposes of this document, impairment findings are required for the resources of historic structures and cultural landscape.

IMPAIRMENT DETERMINATION FOR THE SELECTED ALTERNATIVE

The National Park Service has determined that repairs of the Cape Hatteras Lighthouse and landscape improvements will not result in the impairment of park resources and values. This determination on impairment has been prepared for the selected alternative described on pages 16-19 of the EA and in this Finding of No Significant Impact. An impairment determination is made for the following resource impact topics: historic structures and cultural landscape. These cultural resources are considered fundamental to the Cape Hatteras Lighthouse and its landscape in Cape Hatteras National Seashore (the Seashore).

Historic Structures

Historic structures within the project area include the Cape Hatteras Lighthouse, the Oil House, the Principal Keeper’s Quarters, and the Double Keepers’ Quarters. These structures all contribute to the light station’s listing in the National Register of Historic Places as well as its designation as a National Historic Landmark. The light station is also an important part of the history of the Seashore overall. The Seashore’s foundation document includes within its primary interpretive themes the topic of history and heritage. It states, “Within this dynamic and once isolated barrier island system, unique cultures have

evolved which serve as a testament to humankind’s relationship with the boundary of land and sea.”¹ The foundation document also identifies light stations as historic structures that are part of the fundamental resources and values of the Seashore. Furthermore, the movement and preservation of the Cape Hatteras Light Station is identified in the foundation document as part of the other resources and values of the Seashore.

The selected alternative will result in a beneficial impact on historic structures due to the restoration and protection of historic character and appearance of the structures and their setting. Additionally, it will improve the sustainability of the structures through the use of non-corrosive metal elements and the protection of landscape vegetation. The actions associated with the selected alternative will create a more consistent period of interpretation for the light station by removing modern, non-sympathetic intrusions on the historic structures as well as on the landscape, and restoring elements of the site to their pre-1920s appearance, such as replicating the First-Order Fresnel lens and recreating the fencing around the Lighthouse and keepers’ quarters. Though some project elements will introduce modern elements into the historic setting of the structures, such as the new walkways and interpretive panels, they are designed to protect the cultural landscape and will be designed and sited in a way that minimizes the visual intrusion and retains the open character between the Lighthouse and the keepers’ quarters.

The overall historic character of the historic structures will remain intact under the selected alternative. No changes will be made to the character-defining features of the historic structures in a manner that will diminish their overall integrity in terms of location, design, setting, materials, workmanship, feeling, or association. The park will apply the *Secretary of the Interior’s Standards for the Treatment of Historic Properties* for all actions undertaken at the historic structures. The light station will continue to represent its association “with the federal government’s efforts to provide an integrated system of navigational aids to provide for safe maritime transportation” and will continue to embody a distinctive design and method of construction typical of coastal lighthouses on the East Coast of the United States during the second half of the 19th century.² The light station will remain listed on the National Register and will maintain its designation as a National Historic Landmark. The Lighthouse, Oil House, Principal Keeper’s Quarters, and Double Keepers’ Quarters will continue to contribute to light station’s significance, and the light beacon will continue to serve as a functional navigational aid. Visitors will continue to be able to visit the light station and learn about the maritime history as well as the history of the lighthouse move. Therefore, the NPS has determined that the selected alternative will not result in impairment to the historic structures at the light station.

Cultural Landscape

The light station is also an important part of the history of the Cape Hatteras National Seashore (the Seashore) overall. The Seashore’s foundation document includes within its primary interpretive themes the topic of history and heritage. It states, “Within this dynamic and once isolated barrier island system, unique cultures have evolved which serve as a testament to humankind’s relationship with the boundary of land and sea.”³ The foundation document also identifies light stations as cultural landscapes that are part of the fundamental resources and values of the Seashore. Furthermore, the movement and preservation of the Cape Hatteras Light Station is identified in the foundation document as part of the other resources and values of the Seashore.

Actions associated with restoration and rehabilitation of the Lighthouse and the Oil House will result in beneficial impacts on the cultural landscape because they will restore and protect the historic character and appearance of the structures, as well as their sustainability through the use of non-corrosive metal elements. Elements such as adding fencing around the Lighthouse and keepers’ quarters and removing the

¹ National Park Service. 2011. *Foundation Statement, Cape Hatteras National Seashore*. North Carolina. p. 13.

² Cape Hatteras Light Station National Historic Landmark Nomination Form. Modified December 18, 2000.

³ National Park Service. *Foundation Statement*. p. 13.

modern shade canopy on the Oil House will create a more consistent period of interpretation for the light station by removing modern, non-sympathetic intrusions and restoring elements of the site to their pre-1920s appearance.

The selected alternative will also improve the appearance of the landscape through vegetation planting and protection. The new walkways in combination with the landscape contours and plantings will discourage visitors from walking off of the established walkways, which will protect the vegetation from heavy foot traffic. The existing bare spots throughout the landscape will be reestablished with native vegetation and the landscape will be protected from visitors inadvertently creating new bare spots.

Although aspects of the cultural landscape will be improved, other actions will introduce non-historic features into the cultural landscape such as the new walkways, interpretive panels, and the shade structure. These new features could detract from the historic character, alter views, and change circulation patterns. However, impacts on the cultural landscape will be mitigated through the design process to the extent practicable. The sensitive nature of the landscape will be considered during future design of the features, including the specific location, orientation, size, materials, and color. For example, the walkways will be of a colored concrete with a brushed texture or a soil consolidant with native soil that minimizes the visual intrusion on the landscape. The shade structure and the relocated Keepers of the Light Amphitheater stones will each be tucked into the edge of the maritime forest to be visually screened by vegetation. The design and siting of all non-historic features will ensure that intrusions on the landscape are minimized and that the cultural landscape retains its historic integrity.

The overall historic character of the cultural landscape will remain intact under the selected alternative. No changes will be made to the character-defining features of the cultural landscape in a manner that will diminish their overall integrity in terms of location, design, setting, materials, workmanship, feeling, or association. The park will apply the *Secretary of the Interior's Standards for the Treatment of Cultural Landscapes* for all new elements on the landscape. The light station will continue to represent its association "with the federal government's efforts to provide an integrated system of navigational aids to provide for safe maritime transportation" and will continue to embody a distinctive design and method of construction typical of coastal lighthouses on the East Coast of the United States during the second half of the 19th century.⁴ The light station will remain listed on the National Register and will maintain its designation as a National Historic Landmark. The Lighthouse, Oil House, Principal Keeper's Quarters, and Double Keepers' Quarters will continue to be contributing features to the cultural landscape, and the light beacon will continue to serve as a functional navigational aid. Visitors will continue to be able to visit the light station and learn about the maritime history as well as the history of the lighthouse move. Therefore, there the NPS has determined that the selected alternative will not result in impairment to the cultural landscape at the light station.

SUMMARY

The National Park Service has determined that the implementation of the NPS selected alternative will not constitute an impairment of the resources or values of the Seashore. As described above, implementing the selected alternative is not anticipated to impair resources or values that are essential to the purposes identified in the establishing legislation of the park, key to the natural or cultural integrity of the park, or identified as significant in the park's relevant planning documents. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction of the NPS *Management Policies 2006*.

⁴ Cape Hatteras Light Station National Historic Landmark Nomination Form. Modified December 18, 2000.

**ATTACHMENT B:
PUBLIC COMMENT SUMMARY**

The *Cape Hatteras Lighthouse Repair and Landscape Improvement Project Environmental Assessment* (the EA) was released for public review on May 24, 2022, and was available via the park's Planning, Environment, and Public Comment (PEPC) website (<https://parkplanning.nps.gov/caha>) and hard copies were available upon request. An open public comment period was held from May 24 through June 22, 2022.

According to NPS policy, substantive comments are those that 1) question the accuracy of the information in the EA, 2) question the adequacy of the environmental analysis, 3) present reasonable alternatives that were not presented in the EA, or 4) cause changes or revisions in the proposal. During the comment period, 8 pieces of correspondence were received from the general public via PEPC. The majority of comments expressed support of the project, and no comments were substantive to warrant changes to the environmental assessment.

During a concurrent consultation period with the North Carolina State Historic Preservation Officer, they suggested that the National Park Service consider using a soil consolidant with native soil rather than a colored brushed concrete for the proposed walkways. The National Park Service took this suggestion into consideration and has added it into the proposed action via an errata, see Attachment C below.

ATTACHMENT C ERRATA

These errata document changes to the text of the *Cape Hatteras Lighthouse Repair and Landscape Improvement Project Environmental Assessment* (EA) based on consultation and coordination with the North Carolina State Historic Preservation Officer during the public review period of the EA. Changes to the EA text below are noted by page number; additions to the text are denoted by underlines and deletions are denoted by strikeouts.

CHAPTER 2: ALTERNATIVES

Page 17: Figure 5, Legend

5: 12' Colored Concrete or Soil Consolidant Walkway

Page 19, Landscape Improvements, Circulation

The new pedestrian walkway loop circulating between the keepers' quarters and the Lighthouse would follow the same alignment as under alternative B but would be approximately 10-12 feet wide to accommodate heavy visitor traffic and to facilitate emergency vehicle access. The walkway would be up to 12 feet wide and would be a constructed of either concrete (tinted so the color blends with the browns and grays in the native soil and textured with a brush finish) or an alternative material such as a soil consolidant (using native soil) to lessen the visual impact of the walkways within the setting of the light station. The specific material and color would be determined during a future design phase.

Page 19, Landscape Improvements, Gathering Area and Shade

To provide another opportunity for visitors to rest in the shade, and provide more opportunities for visitors to experience the foundation blocks, the Keepers of the Light Amphitheater would be disassembled and the blocks relocated along the perimeter of the ~~proposed walkway south of the Lighthouse.~~ The blocks would be placed along the path site in areas shaded by the maritime forest canopy along to provide respite to visitors from the hot sun.

Page 20, Mitigation Measures of the Action Alternatives

- The visual intrusion of new sidewalks would be minimized due to the use of a colored concrete or a soil consolidant with native soil that is compatible with the setting.

CHAPTER 3, AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Page 34, Cultural Landscape, Impacts of Alternative C: Circulation Enhanced and Lens Replicated (NPS Preferred / Proposed Action)

... The new and wider walkways proposed throughout the site would slightly diminish the site's integrity of design, setting, and feeling in the same manner as described under alternative B if a brushed colored concrete surface is used. If a soil consolidant with native soil is implemented under alternative C, the impacts would be similar, but of a somewhat lesser degree because the soil consolidant would have a more natural appearance of soil, rather than the engineered look of concrete with crisp edges and regularly spaced joints. Whether the walkways are surfaced with a colored brushed concrete or soil consolidant, the new circulation patterns would be highly visible when viewed from the top of the Lighthouse; however, the historic circulation patterns would continue to be evident through the use of different materials and design, which would avoid creating a false sense of history.

Page 35, Cultural Landscape, Impacts of Alternative C: Circulation Enhanced and Lens Replicated (NPS Preferred / Proposed Action)

Removal of the Keepers of the Light Amphitheater from its current location would remove a non-historic feature from the move corridor. Allowing the reuse of the stones as benches along the ~~proposed walkways to the south of the Lighthouse~~ edge of the maritime forest tucked under the trees would allow the original below-ground foundation stones to maintain their connection to the Lighthouse while remaining unintrusive upon the open viewshed between the Lighthouse and the keepers' quarters.

Page 37, Cultural Landscape, Conclusion

...Finally, under the proposed action, moving the Keepers of the Light Amphitheater from its current location to the ~~walkways south of the Lighthouse~~ edge of the maritime forest tucked under the trees would result in a beneficial impact to the cultural landscape. This change would allow the original below-ground foundation stones to maintain their connection to the Lighthouse while remaining unintrusive upon the open viewshed....

Page 43, Visitor Use and Experience, Impacts of Alternative C: Circulation Enhanced and Lens Replicated (NPS Preferred / Proposed Action)

...However, removing the stones from their current location and reusing them as benches along the ~~proposed walkways to the south of the Lighthouse~~ edge of the maritime forest tucked under the trees would improve visitor comfort and their interpretive experience because the stones would offer visitors a place to sit and rest in closer proximity to the Lighthouse, especially for groups waiting to climb the Lighthouse....