

# Finding of No Significant Impact Repairs to Fort Jefferson Counterscarp and Dredging of Selected Areas Environmental Assessment

May 2023

Recommended:

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# **TABLE OF CONTENTS**

INTRODUCTION1
SELECTED ALTERNATIVE1
RATIONALE FOR DECISION
OTHER ALTERNATIVES CONSIDERED2
MITIGATION MEASURES
General Resource Management Protection
Cultural Resource Protection
Wildlife and Species of Special Concern Protection
Nonnative and Exotic Species
Vegetation Protection
Wetland Protection
Marine Resource Protection
Water Quality Protection
Visitor Use and Experience
Human Health and Safety Protection7
PUBLIC INVOLVEMENT AND CONSULTATION
Public Involvement7
Agency Consultation
FINDING OF NO SIGNIFICANT IMPACT8
CONCLUSION
APPENDICES

APPENDIX B – ERRATA INDICATING TEXT CHANGES TO EA

APPENDIX C - RESPONSES TO SUBSTANTIVE COMMENTS DURING PUBLIC REVIEW

# **INTRODUCTION**

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the repairs to the Fort Jefferson counterscarp and dredging of selected areas in Dry Tortugas National Park (Dry Tortugas NP or "the park"). The purpose of the repairs to the counterscarp and dredging of selected areas is to address the damages to the counterscarp and sediment build up within the moat and the Garden Key Waterfront resulting from Hurricane Irma in 2017 and Hurricane Ian in 2022. The proposed improvements are to repair sections of the counterscarp and make the fort more resilient to future storms and hurricanes. Additionally, portions within the moat and the Garden Key Waterfront will be dredged to restore pre-hurricane water depths. The project is needed to restore visitor use and experience and park operations to conditions prior to Hurricane Irma and Hurricane Ian and to protect the \$25 million investment the NPS has previously made to repair the scarp. Without the proposed improvements, visitor experience will continue to degrade due to limited access to the fort and park marine vessel access will continue to be restricted (see EA, Chapter 1, page 6).

This Finding of No Significant Impact (FONSI) documents the decision of the NPS to select the preferred alternative identified in the EA for the Repairs to Fort Jefferson Counterscarp and Dredging of Selected Areas. The EA and FONSI were prepared in accordance with the NEPA, as amended [42 United States Code (USC) 4332(2)(C)]; the 2020 implementing regulations of the Council of Environmental Quality [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 2015 NPS NEPA Handbook. Attached to this document is the NPS determination that the Selected Alternative will support the desired conditions, visitor use and experience and park operations at Fort Jefferson and will not result in impairment to park resources (**Appendix A**). The NPS will implement the Selected Alternative, Alternative B, as presented in the EA and summarized below.

The statements and conclusions reached in this FONSI are based on 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.

# SELECTED ALTERNATIVE

Based on the analysis presented in the EA, the NPS selected Alternative B, the proposed action and preferred alternative, for implementation. The selected alternative was defined in the EA as the NPS preferred alternative and is described below, and a full description can be found in Chapter 2, page 11 - 17 of the EA. The selected alternative will repair, strengthen and protect the compromised sections of the counterscarp; remove sand and silt at two locations within the moat surrounding Fort Jefferson; and dredge the finger pier slips at the Garden Key Waterfront.

The repairs to the counterscarp will consist of rebuilding portions of the counterscarp wall that are collapsed, replacement of missing cement walkway and repair the core failures. The scoured sections of the wall will be repaired by filling below-water voids to restore the stability of the counterscarp. New materials that match the historic fabric of the counterscarp will be used so the structure will be more durable.

Approximately 150 linear feet (ft.) of rip-rap revetment, consisting of locally-sourced limestone boulders, will be placed at the oceanside base of the counterscarp; approximately 60 linear ft. will be placed at the southwest face of the counterscarp and approximately 90 linear ft. will be placed on the western face of the counterscarp, equivalent to 150 cubic yards, to aid in hardening and prolonging the counterscarp's life against future ocean energy, wave action and scour.

The accumulated sand and silt within two areas of the moat will be removed by dredging to restore water circulation within the moat. The material removed will be placed on the north and south beaches and along the isthmus connecting Garden Key and Bush Key. Additionally, the finger pier slips at the Garden Key Waterfront will be dredged to restore water depth for park and recreational vessels. The material removed will be placed in one of the designated spoil placement areas described in Chapter 2 in the EA.

# **RATIONALE FOR DECISION**

The NPS selected the proposed action and preferred alternative, Alternative B, for implementation because it meets the purpose and need of the project, which is to restore visitor use and experience and park operations at the fort. This decision has been made after considering environmental impacts to resources including archeological resources, historic/prehistoric structures, wildlife and species of special concern, marine resources, water quality, vegetation, wetlands, human health and safety and visitor use and experience.

# **OTHER ALTERNATIVES CONSIDERED**

In addition to the selected alternative, the EA evaluated one other alternative, the no action (Alternative A). This alternative represents the current conditions and is a baseline for comparison of the action alternative. No repairs or changes would be made, and the counterscarp, finger pier slips and other structures on Garden Key would continue to deteriorate, ultimately jeopardizing the structural integrity of the counterscarp and the fort. The moat would continue to have stagnant water which would lead to continued deterioration of water quality, marine species and their habitat, and visitor use and experience. The no action alternative does not adequately address the park's need to restore visitor experience and park operations at the fort. The counterscarp and remainder of the fort would continue to degrade over time due to wind and wave action from storm events and hurricanes.

# **MITIGATION MEASURES**

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts (see EA, Chapter 2, page 18). Therefore, the NPS will implement multiple mitigation measures and best management practices (BMPs) to protect the natural and cultural resources that the project could affect. The selected alternative incorporates several monitoring and mitigation measures and BMPs to avoid or minimize impacts to cultural resources; wildlife and species of special concern; marine resources; water quality; vegetation; wetlands, as well as human health and safety and visitor use and experience. These measures and practices were described in Chapter 2 of the EA. Unless otherwise specified below, the authority for these mitigations comes from the NPS Organic Act and NPS Management Policies. The following mitigation measures and BMPs will be included for the selected alternative.

#### **General Resource Management Protection**

- Staging of materials will take place only in designated areas.
- All work areas will be fenced in order to keep construction disturbances within the NPS-defined limits of construction. All workers will be instructed to avoid conducting activities beyond the fenced construction limits.
- Construction employees will be instructed on the sensitivity of the surrounding environment. Activities will be monitored by NPS staff, as needed.
- Construction activities will be phased in a manner to allow visitor access to various features of the site.

### **Cultural Resource Protection**

- In accordance with the 2008 National Park Service Programmatic Agreement Section VI, if cultural resources are discovered during project implementation, all work in that area must stop and the Superintendent, park Archeologist, or Chief of Cultural Resources must be notified immediately.
- While potential is considered low, if unexploded explosive ordnance (UXO) is found during the course of the project, personnel have knowledge of this potential and how to respond if UXO is uncovered. If found, suspected UXO should not be moved or touched. Personnel should mark the location (not the item) and document/describe if possible as well as immediately inform park management including the Superintendent, park Archeologist, or Chief of Cultural Resources. An exclusion area around the location may be established through coordination.
- If items protected by the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during project implementation, all activity must cease in the area of discovery and immediate notice made to the Superintendent, as well as the appropriate federally recognized Indian Tribes/Organizations and State Historic Preservation Officer (SHPO).
- All work areas will be fenced in order to keep construction disturbances within the NPS-defined limits of construction. All workers will be instructed to avoid conducting activities beyond the fenced construction limits.
- Staging of materials will take place only in designated areas. Staging areas for construction equipment and materials will be located within a fenced 2,700 square foot area on the north coaling dock, a concrete dock that has been used for staging for previous park projects.
- Masonry will be sourced to match the color, composition, hardness, permeability, and inclusion size of the historic materials. All proposed masonry, mortar and related materials will be approved by the NPS prior to construction.
- Fencing, turbidity curtains, signage and plywood barriers will be required to protect brick work from dredging.
- Excavation by hand is required when working in close proximity to masonry.
- Dredge spoil shall be screened for cultural material by the contractors prior to placement within the parade grounds at Fort Jefferson. Disarticulated cultural material removed from disturbed areas shall be placed with other disarticulated material associated with the demolished barracks exterior of Fort Jefferson. This material most often includes brick and mortar rubble but may also include small amounts of glass, iron, or organic material.

- Ground protection mats shall be used in areas where the substrate is loose (sand) or in areas where repetitive trips may cause ruts, erosion, or other degradation.
- A cultural resource monitor and/or fencing may be required for any work near archeological resources as determined by the Chief of Cultural Resources.
- Coordination with the Chief of Cultural Resources, a historic architect, or someone trained in HABS/HAER documentation will occur to document surviving portions of the counterscarp wall and foundations during demolition/repair of damaged sections to provide the first archeological documentation of this feature.
- Coordination with the Chief of Cultural Resources or park Archeologist shall occur regarding the underwater magnetic anomalies identified during the cultural resource survey that should be avoided by heavy equipment and/or barges.
- Coordination with the Chief of Cultural Resources or park Archeologist shall occur during ground disturbing activities, placement of fill or erosion control measures, and use of heavy equipment to avoid cultural resources.
- The Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties (36 CFR Part 68, 1995) is to be followed for all repairs to historic properties within the Area of Potential Effect (APE).

## Wildlife and Species of Special Concern Protection

- Additional species-specific surveys required by consultation with the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) will be conducted prior to construction.
- Pre-construction surveys of the counterscarp/in-water spoil placement areas will be completed to confirm locations and limits of protected resources (i.e., corals and seagrass).
- Any healthy corals within the construction area will be relocated as part of the Coral Relocation Project and as stipulated in the coral relocation plan.
- In order to avoid impacts to seagrass habitat, construction activities will occur outside of any mapped seagrass habitat.
- Educational signage regarding protected species will be included on-site for contractors.
- Turbidity barriers will be utilized during construction to prevent the spread of suspended sediments. Turbidity barriers will be inspected and installed in a manner to prevent the entanglement of marine species.
- The USFWS Standard Manatee Conditions for In-Water Work will be implemented during construction.
- The NOAA Fisheries Southeast Regional Office *Protected Species Construction Conditions* and *Vessel Strike Avoidance Measures* will be implemented during construction.
- During sea turtle nesting season (May 15<sup>th</sup> through September 31<sup>st</sup>) the north and south beaches will be monitored by trained and authorized natural resource park staff and any active nests will be marked for avoidance.
- NPS biologists will monitor and report any active sea turtle nests to USFWS and Florida Fish and Wildlife Conservation Commission (FWC).
- NPS biologists will report any sea turtle strandings to USFWS, FWC and NOAA Fisheries.

- Placement of material within critical habitat for the loggerhead sea turtle (north and south beaches) will be prohibited during sea turtle nesting season (May 15<sup>th</sup> through September 31<sup>st</sup>).
- All work will only be conducted during daylight hours to minimize disturbance to wildlife. No night work will occur along the north and south beaches during sea turtle nesting season (May 15<sup>th</sup> through September 30<sup>th</sup>).
- The use of high intensity artificial lights, such as spot or flood vessel deck lights, stern and underwater illumination (other than handheld dive lights) is prohibited.
- No staging of materials will be allowed within critical habitat for the loggerhead sea turtle (north and south beaches and the isthmus).
- During placement of material within the north and south beaches and the isthmus, the beaches will be monitored by park biologists for the presence of piping plovers, roseate terns, and red knots. Should these or other listed species be observed in an active work area, individuals must be allowed to leave the area without handling, interference or harassment.
- Work within bird nesting habitat (north and south beaches and the isthmus) will be prohibited when nesting birds are present (generally February 1<sup>st</sup> through September 30<sup>th</sup>).
- If adult American crocodiles are found in the vicinity, surveys for crocodile nesting will be conducted in and around construction areas.
- A Protected Species Observer (PSO) will be on board all construction vessels to implement NOAA Fisheries protected species construction conditions and vessel strike avoidance measures.
- Additional mitigations may be required following completion of consultation with USFWS and NOAA Fisheries.

# Nonnative and Exotic Species

- To avoid or minimize the introduction or spread of non-native, invasive plant and animal species to the extent possible, minimally disturbed areas will be allowed to recover naturally. In coordination with the park Botanist or Biologist, any fill, mulch, reseeding and sod material brought into the park must be free of nonnative, invasive plants and animals and noxious weeds and weed seeds.
- Any equipment, including dive gear, must be free of exotic or nonnative species to prevent introduction and spread onto the project site.
- The NPS will implement the Integrated Pest Management process and adhere to mitigations identified in the DRTO Rat Management Plan during construction to avoid the introduction of rat populations at the site.

# **Vegetation Protection**

• Landscape restoration (i.e., seeding) may occur to restore impacted vegetative communities throughout the site after construction.

## **Wetland Protection**

• Mitigation for unavoidable wetland impacts within the fort walls will be offset through compensatory mitigation, such as wetland restoration in the Flamingo District of Everglades

National Park. A mitigation plan will be further developed and finalized in conjunction with, and as a requirement under Section 404 of the CWA permit process and NPS Procedural Manual #77-1: *Wetland Protection*.

## **Marine Resource Protection**

- Construction vessel operators will be prohibited from allowing an anchor, chain, rope or other mooring device to be cast, dragged or placed as to strike or cause damage to coral formations, seagrass, or submerged cultural resources.
- A certified diver(s) will be present to inspect substrate suitability prior to barge spud placement.
- Surveys will be conducted to determine limits of seagrass prior to the installation of turbidity curtains.
- Repairs to the core failures will be conducted from the top-side of the counterscarp subsequent to removal of the existing (damaged) concrete walkway.
- Beach placement of material below the Mean High Water Line (MHWL) will be verified and compatible with the native beach sand, in particular in terms of matching the prevalence of fine material (i.e., material less than 0.063 millimeters in diameter).
- The MHWL will be staked prior to placement of sediment on the beach to ensure the activities associated with the upland component of the project are constructed entirely landward of the MHWL.

## Water Quality Protection

- An Erosion and Sediment Control and Stormwater Pollution Prevention Plan (SWPPP) will be developed to comply with the current FDEP National Pollutant Discharge Elimination System (NPDES) requirements and a FDEP NPDES Construction General Permit coverage will be obtained. The SWPPP will be developed to address all stormwater management BMPs.
- Appropriate measures will be employed to prevent and control spills of fuels, lubricants, or other contaminants from entering waterways. Actions will be consistent with state water quality standards and CWA, Section 401 certification requirements.
- Pre-and post-construction sediment and erosion control BMPs will be implemented to minimize stormwater runoff entering the water column and ensuring nephelometric turbidity units (NTUs) are not above ambient levels.
- Erosion and sediment control BMPs will be inspected and maintained on a regular basis and after each measurable rainfall to ensure they are functioning properly.
- Waters within the park boundary are classified as Outstanding Florida Waters (OFWs). Turbidity and siltation from the proposed dredging activities will be minimized, confined to the immediate vicinity of the project work area, and contained through the use of turbidity barriers, which will be installed around the immediate work area during in-water construction activities.
- Water quality monitoring will be conducted throughout construction and dredging activities as required by regulatory agencies through agency consultation and permitting process.
- All BMPs required by regulatory permits will be adhered to.

### Visitor Use and Experience

- Visitors will be informed of construction activities and affected access to the park by on-site signage, and by information provided by the ferry and seaplane operators and posted on the park website, social media, and at visitor centers.
- Construction activities will be avoided or limited during peak visitor-use periods (weekends and holidays) to the extent possible.
- Temporary short-term full closure of areas may be necessary on limited occasions. Such full closures will be for the minimal time required to complete the work activity. To the extent possible, partial and/or limited closures of visitor access will be used.
- Construction fencing/barriers and closure signage will be implemented around construction areas, on land and, if necessary, in the water, to prevent visitors from entering an active construction zone.

### Human Health and Safety Protection

• A pedestrian traffic management plan for visitors and marine vessels will be required from the Contractor to reduce the potential impacts on visitors and park operations as a result of construction activities.

# PUBLIC INVOLVEMENT AND CONSULTATION

## **Public Involvement**

In January 2022, the park announced the project to provide the public an opportunity to learn about the Fort Jefferson Counterscarp Repairs and Dredging of Selected Areas project and provide comments and input. The park distributed a news release to recipients on its email list, posted a notice on the Planning Environment and Public Comment (PEPC) website, shared the availability of the EA on its social media platforms, and sent emails and letters to federal, state, local and tribal governments, stakeholders, and other interested individuals and groups. The park invited the public to provide questions or suggestions on the project. Correspondence was received from the National Parks Conservation Association, two Universities, and unaffiliated individuals. No public meetings were held for this project.

On March 8, 2023, the park made the EA available for public review for a public comment period, ending on April 10, 2023. The park posted the EA on the PEPC website for review and comment and notified the park mailing list via email. During the public comment period, 11 correspondences were received. The majority of the correspondence were from unaffiliated individuals, 7 of whom were from Florida. Overall, commenters expressed support for the selected alternative. A commenter recommended that the park include additional best management practices to prevent finer-grained sediments from entering the water column and impacting nearby corals and seagrasses from the placement of spoil on the beaches. Other comments received pertained to the details of the coral relocation project occurring prior to the selected alternative being implemented.

#### **Tribal Consultation**

#### **Tribal Historic Preservation Officer**

On February 22, 2023, the NPS provided the Assessment of Effects to the Seminole Tribe of Florida (STOF), Miccosukee Tribe of Indians (MTOI) and Seminole Nation of Oklahoma (SNO). In the accompanying letter, the NPS stated that the repair and rehabilitation of the counterscarp, the dredging of the moat, and the placement of dredged material within Garden Key will have no adverse effect on properties listed or eligible for listing on the National Register of Historic Places (NRHP). The STOF concurred with the NPS' effect determination in a formal response on March 14, 2023, and asked the NPS to notify the STOF if any archeological, historical, and/or burial resources are inadvertently discovered during project implementation. There was no response from the MTOI or SNO. Continued coordination on the project has been discussed informally at regularly scheduled quarterly meetings with the STOF throughout the course of the project, and no concerns or questions were raised.

#### **Agency Consultation**

#### **State Historic Preservation Officer**

On February 22, 2023, the NPS provided the Assessment of Effects to the SHPO. In the accompanying letter, the NPS stated that the repair and rehabilitation of the counterscarp, the dredging of the moat, and the placement of dredged material within Garden Key will have no adverse effect on properties listed or eligible for listing on the National Register of Historic Places (NRHP). The SHPO concurred with the NPS' effect determination on April 4, 2023.

#### United States Fish and Wildlife Service and NOAA National Marine Fisheries Service

The NPS is consulting with USFWS and NOAA Fisheries under Section 7 of the ESA and the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Both USFWS and NMFS have requested that Section 7 consultation be addressed through the US Army Corps of Engineers (Corps) permitting process to take advantage of programmatic and procedural arrangements that will streamline the Section 7 consultation process from these agencies' perspectives, and we support this recommendation since we have maintained close coordination. As a result, Section 7 consultation is unlikely to be complete when this document is signed. Through the ongoing coordination, neither NOAA Fisheries nor USFWS recognize substantial Section 7 concerns or impacts to listed species and critical habitats that differ from those described in the EA, and Section 7 will be completed prior to project implementation as it is also linked to the Corps permits.

# FINDING OF NO SIGNIFICANT IMPACT

As discussed and analyzed in detail in the EA, the selected alternative has the potential for impacts to archeological resources and historic/prehistoric structures (cultural resources); wildlife and species of special concern; marine resources; water quality; vegetation; wetlands; human health and safety; and visitor use and experience. A detailed analysis of effects can be found in the EA (Chapter 3). However, there is no potential for significant impacts to any of these resource topics that will require an analysis in an Environmental Impact Statement. The NPS used factors as defined in 40 CFR 1508.27 to evaluate whether the selected alternative will have a significant impact on the environment. Short- and long-term adverse

impacts identified in the EA for all impact topics analyzed are not significant in either context or intensity with impacts being in local geographic context as defined in 40 CFR 1508.27.

#### Cultural Resources

The selected alternative will not result in any adverse effects to archeological or historic/prehistoric resources. The selected alternative was determined to have no adverse effect to the counterscarp and moat, which are significant physical resources that contribute to the National Register of Historic Places (NRHP)-listed Fort Jefferson Complex. The repairs will take place in a sensitive manner and use compatible materials, when possible. The selected alternative will not compromise the remaining integrity of the counterscarp and moat, and the overall fort will continue to convey its significance and remain eligible for inclusion in the NRHP. The placement of fill on portions of the archeological component of Fort Jefferson will have no adverse effect on historic properties. Mitigation measures are in place to avoid several areas within Fort Jefferson. During construction activities, periodic monitoring and documentation of the placement of fill, rip rap and erosion control measures will be conducted.

#### Wildlife and Species of Special Concern

The selected alternative will avoid adverse impacts to wildlife and threatened and endangered species through the implementation of avoidance and minimization measures and best management practices. Construction activities will be timed to avoid impacts to wildlife. A NPS biologist will be on site monitoring the north and south beaches during sea turtle nesting season and spoil placement on the beaches will be avoided during sea turtle nesting season. Species may be displaced temporarily during construction; however, they are expected to return after construction is completed. Agency consultation is ongoing with the USFWS and NOAA Fisheries, and pre-construction surveys and coordination with agencies will continue for species of special concern.

#### Marine Resources

The selected alternative will have long-term beneficial impacts to marine resources due to increased habitat quality. The dredging and counterscarp repairs are expected to improve habitat for corals, submerged aquatic vegetation (SAV), including seagrass, by providing improved water quality within the moat and more habitat for coral growth and recruitment. While temporary adverse impacts to essential fish habitat (EFH) will occur during construction activities, the conditions of the substrate will be similar to existing conditions except with a deeper profile, and species are expected to return to the project area. Avoidance measures will be in place to prevent turbidity in the adjacent areas, and no seagrass habitat is within the project area.

#### Water Quality

The selected alternative will have localized, temporary adverse impacts and beneficial impacts to water quality. Best management practices will be in place to reduce turbidity levels from the dredging and counterscarp repair activities. Additionally, turbidity curtains and silt fences will be in place to ensure no construction debris or other materials will enter the water. Impacts to water quality will be site-specific, lasting until construction activities cease. However, long term beneficial impacts to water quality are anticipated by improving circulation within the moat.

#### Vegetation

The selected alternative will have short-term adverse impacts to vegetative communities by the placement of dredge spoil on existing vegetation within the parade grounds. However, this vegetation within the parade

grounds is considered to be insignificant based on surveys from the NPS, and vegetation is expected to revegetate naturally over time. Additionally, vegetation outside of Fort Jefferson may be adversely impacted during construction activities from the movement of equipment. If vegetation is impacted, landscape restoration may occur to restore habitat to pre-existing conditions.

#### Wetlands

The selected alternative will have long-term beneficial impacts to wetlands from placement of spoil on the beaches to renourish and restore the shoreline. The placement of spoil within the parade grounds will result in adverse impacts to 2.1 acres of low-quality wetlands. The USACE recognizes this wetland as jurisdictional; therefore, compensatory mitigation in the form of wetland restoration will occur within Dry Tortugas or Everglades National Parks. The restoration will undergo supplemental consultation and compliance when sufficient details are developed. The NPS has determined that no Wetlands Statement of Findings is required because the placement of spoil on the beaches and within the parade grounds are considered excepted actions under the NPS Procedural Manual #77-1: *Wetland Protection*.

#### Human Health and Safety

The selected alternative will have long-term beneficial impacts on human health and safety by repairing the portions of the counterscarp that are damaged or have collapsed. In addition, the dredging activities will improve water conditions within the moat creating a healthier environment for visitors, concessioners and staff. Portions of the site will be temporarily closed during construction activities for the safety of visitors and staff. These areas will be delineated by barriers and/or fencing, signage and flaggers to direct visitors away from construction areas for safety.

#### Visitor Use and Experience

The selected alternative will have short-term adverse and long-term beneficial impacts to visitor use and experience. During construction, there will be temporary public closures to portions of the site. However, after construction activities are complete, visitor experience will be enhanced to pre-hurricane conditions with restored access to the counterscarp which may enhance wildlife viewing opportunities. Additionally, the dredging of the finger pier slips and moat will provide more public access to Garden Key via marine vessels and swimming areas, respectively.

There will be no significant impacts on public health, public safety, or unique characteristics of the region. No uncertain or controversial impacts or significant cumulative effects were identified. The implementation of the selected alternative will not violate any federal, state, or local environmental protection law.

# CONCLUSION

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an EIS. The selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA and CEQ's implementing NEPA regulations at 40 CFR 1500 et seq. Therefore, it has been determined that an EIS is not required for this project and, thus, will not be prepared.

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# **APPENDICES**

# **APPENDIX A: NON-IMPAIRMENT DETERMINATION**

# What is Impairment?

The National Park Service's (NPS) 2006 Management Policies requires analysis of potential effects to determinate whether or not actions will impair park resources. In order to manage and preserve national park lands, Congress passed the NPS Organic Act in 1916. The fundamental purpose of the national park system, established by the Organic Act, begins with a mandate to conserve park resources and values. The Organic Act established the NPS as an agency under the discretion of the Secretary of the Interior with the stated purpose of promoting use of national park lands while protecting them from impairment. Sections 1.4.5 and 1.4.6 of the 2006 Management Policies provide an explanation of impairment as "an impact, that in the professional judgement of the responsible NPS manager, would harm the integrity of park resources and values, including the opportunities that otherwise would be present for the enjoyment of those resources and values." As stated in Section 1.4.5, an impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact will be less likely to constitute an impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated. Section 1.4.6 of the *2006 Management Policies* identifies the park resources and values that are subject to the no-impairment standard:

- the park's scenery, natural and historic objects, and wildlife, and the processes and condition that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals.
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and

• any additional attributes encompassed by the specific values and purposes for which the park was established.

## Non-impairment Determination for the Selected Alternative

This determination on impairment has been prepared for the NPS selected alternative, Alternative B, described in the Finding of No Significant Impact (FONSI) and in the Repairs to Fort Jefferson Counterscarp and Dredging of Selected Areas Environmental Assessment (EA). The significance of each resource based on the park's enabling legislation is discussed in the sections below. The resource impact topics carried forward and analyzed for the selected alternative in the EA and for which an impairment determination is made are archeological resources and historic/prehistoric structures (cultural resources); wildlife and species of special concern; marine resources; water resources; and vegetation and wetlands. An impairment determination is not made for human health and safety or visitor use and experience because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values according to the Organic Act. Therefore, these impact areas cannot be impaired in the same way that an action can impair park resources and values. Each resource or value for which impairment is assessed and the reasons why impairment will not occur is described below.

#### **Cultural Resources**

Section 106 of the National Historic Preservation Act (NHPA), as amended (16 U.S.C. 470f), and its implementing regulations under 36 CFR Part 800 require federal agencies to consider effects of federal actions on historic properties, including archeological sites and resources of cultural and religious significance. The project area contains terrestrial and submerged archeological resources, and historic structures. Fort Jefferson is listed on the National Register of Historic Places (NRHP). The selected alternative will repair the counterscarp, place rip rap at the base of the counterscarp to aid in the hardening of the counterscarp's life, dredge two areas of the moat, dredge the finger pier slips and place dredge spoil material within the fort (parade grounds) and on the beaches. Several mitigation measures will be implemented to protect and monitor known archeological resources and historic structures. Other best management practices will be implemented to further minimize or avoid impacts to cultural resources. After applying the Advisory Council on Historic Preservation under 36 CFR Part 800.4, the NPS concludes that the selected alternative will have no adverse effect to properties listed or eligible for listing on the NRHP. The repairs will take place in a sensitive manner and use compatible materials, when possible. Because the selected alternative will not compromise the remaining integrity of the counterscarp and moat, and the overall fort will continue to convey its significance and remain eligible for inclusion in the NRHP and the placement of fill on portions of the archeological component of Fort Jefferson will have no adverse effect on historic properties, the selected alternative will not result in impairment to cultural resources.

## Wildlife and Species of Special Concern

Dry Tortugas NP has a rich biodiversity of coastal and marine life, including seagrass beds, coral reefs, diverse fisheries and high-quality sea turtle and bird nesting habitat. Overall, the selected alternative will avoid adverse impacts to wildlife and threatened and endangered species because project impacts will be localized and site-specific, with species displacement lasting until construction activities are completed. The placement of rip-rap adds resilience to the counterscarp while also reducing the frequency of future repairs. The selected alternative will have beneficial impacts on marine life by improving the water quality

within the moat, thereby improving habitat. The selected alternative will also incorporate mitigation measures to protect species of special concern. The occurrence of wildlife and threatened and endangered species is dependent upon the availability of suitable habitat. Impacts on wildlife and species of special concern from the selected alternative will be within natural fluctuations to populations, habitat and natural processes that sustains wildlife and species of special concern in the project vicinity. Additionally, there is sufficient habitat available adjacent to the project area and throughout the park to maintain species populations within the park. Because the project will improve habitat for affected species, nearby suitable habitat is available nearby and sustainable protected species populations will be maintained, the selected alternative will not result in impairment to wildlife or species of special concern.

#### **Marine Resources**

Marine habitat within the project area includes corals, submerged aquatic vegetation (SAV) and essential fish habitat (EFH). No corals are expected to be in the construction area as they will be relocated as part of a separate project beginning in Spring 2023. Corals that may be present in the project vicinity may experience temporary negative impacts due to reduced water quality from increased turbidity from dredging activities. However, the counterscarp repairs will provide more habitat for future coral growth. The SAV documented in the project area is outside of the footprint of the proposed repairs; therefore, no impacts to SAV are anticipated to occur from the selected alternative. Approximately 0.57 acres of sand/shell bottom habitat will be impacted as a result of the dredging activities. While the displacement of managed species may occur temporarily during dredging and construction, no changes to EFH types are anticipated. This disturbance and displacement of species will be temporary, and species are anticipated to return after construction activities are completed. Additionally, there is ample suitable habitat nearby during the temporary displacement.

Marine resources could be affected by changes in the water column from disturbed sediment (turbidity) during construction activities. During construction, best management practices, such as turbidity curtains, will be installed and secured around active construction zones to minimize the spread of turbidity and degradation of water quality. After construction is complete, the benthic conditions will be similar to current conditions. Impacts to marine resources will be limited to the duration of construction activities and no permanent alteration of habitats will occur. Therefore, the selected alternative will not impair marine resources.

#### Water Resources

The implementation of the selected alternative will have temporary localized adverse impacts as well as beneficial impacts to water quality. Construction activities, such as dredging activities in the moat and finger pier slips, are expected to have slight impacts to water quality. However, best management practices, such as turbidity curtains, will be in place reducing turbidity levels in the project area. Additionally, the proposed dredging activities will provide beneficial impacts to water resources by improving circulation within the moat. Implementing erosion control measures (e.g., silt fences) will reduce impacts from construction debris or soils that could enter the water. Impacts to water resources will be localized and site specific until construction activities are complete. The selected alternative will not result in an impairment to water resources because the adverse impacts will be short-term and temporary and will result in a long-term improvement to water quality.

#### **Vegetation and Wetlands**

The selected alternative will involve the placement of spoil from dredging activities on vegetation within the parade grounds and outside of the fort. The dredge spoil locations outside of the fort have limited to no vegetation cover and the dredge spoil location within the parade grounds includes vegetation that the NPS has deemed insignificant. Additionally, vegetation outside of the fort near the Garden Key Waterfront may be damaged from the movement of construction equipment. However, vegetation is anticipated to reestablish, and if necessary, seeding may occur to restore vegetation to pre-existing conditions. There will be no impairment to vegetation from the selected alternative.

The spoil from dredging activities will be placed in wetland habitat within the parade grounds and along the beaches. The selected alternative will result in permanent impacts to 2.1 acres of low-quality wetland habitat within the parade grounds. The functionality of this wetland provides little to no ecological resource benefits. If no action occurs, the existing conditions will continue to deteriorate and the wetland will continue to grow which could add future compliance complications and/or cause undesirable facilities and maintenance challenges, thereby negatively impacting the park. Therefore, placement of spoil within the parade grounds aligns with the desired conditions of the NPS and assists in the preservation of a cultural landscape. The NPS Water Resources Division (WRD) has determined that the placement of spoil within the parade grounds is an excepted action for maintenance, repair and renovation of existing infrastructure under NPS Procedural Manual #77-1: Wetland Protection. These wetland impacts will be mitigated through compensatory mitigation in the form of wetland restoration in Dry Tortugas or Everglades National Parks. The placement of dredge spoil on the beaches between the Mean Higher High Water (MHHW) and Mean Lower Low Water (MLLW) will require permitting with the USACE. This placement of dredge material on the beaches will not affect wetland functionality because the activity will only replace the affected intertidal zone, will improve resiliency of the fort and is considered an excepted action for renourishment/restoration of degraded habitat according to the NPS Procedural Manual #77-1: Wetland *Protection*. Therefore, there will be no net loss of wetlands and no impairment to wetlands.

# Conclusion

The NPS has determined that implementation of the selected alternative will not constitute impairment of the resources or values of the park. The impact analyses summarized above indicate that the selected alternative will not result in impairment to the extent that it affects a resource or value whose conservation is, 1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, 2) key to the natural or cultural integrity for the park or to opportunities for enjoyment of the park, or 3) identified in the park's general management plan or other relevant NPS planning documents as being of significance. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, comments provided by the public, and the professional judgement of the decision maker guided by direction of the 2006 Management Policies.

# APPENDIX B – ERRATA INDICATING TEXT CHANGES TO EA

This errata contains minor revisions to the environmental assessment (EA). The page numbers referenced pertain to the 2023 Fort Jefferson Counterscarp Repairs and Selected Dredging EA. The edits do not result in any substantial modification being incorporated into the selected alternative and additional analysis of impact topics are not required.

#### Alternative B (Proposed Action and Preferred Alternative) – Repairs to Fort Jefferson Counterscarp Including Select Dredging of the Moat and Finger Pier Slips, page 11 and 12. Text in the first paragraph revised to:

Under Alternative B (proposed action and preferred alternative), damages from the 2017 and 2022 hurricanes would be addressed. Given the nature and scope of the proposed repairs, the proposed undertaking has multiple components to address specific management concerns. Specific elements to address these goals include: 1) identifying, removing, and relocating endangered corals and other significant benthic organisms prior to the commencement of repairs; 21) repairing, strengthening, and protecting the compromised sections of the counterscarp at Fort Jefferson; 32) removing sand and silt material at two locations in the moat surrounding Fort Jefferson; and-4 3) dredging adjacent to the docks and within the finger pier slips at the Garden Key Waterfront to allow for continued unobstructed recreational and park use of those areas; and-5 4) the placement of fill (dredge spoil) material in a manner that will limit impacts to cultural resources. Each of these proposed actions are discussed in detail below.

1. Identification, removal, and relocation of ESA listed corals and other significant benthic organisms prior to the commencement of repairs.

2. The repairing, strengthening, and protecting of the compromised sections of the counterscarp at Fort Jefferson -

**Mitigation Measures Associated with Alternative B, page 21.** Under Marine Resource Protection, the following mitigation measures were included regarding the placement of spoil on the beaches:

- Beach placement of material below the MHWL will be verified and compatible with the native beach sand, in particular in terms of matching the prevalence of fine material (i.e., material less than 0.063 millimeters in diameter).
- The MHWL will be staked prior to placement of sediment on the beach to ensure the activities associated with the upland component of the project are constructed entirely landward of the MHWL.

# APPENDIX C - RESPONSES TO SUBSTANTIVE COMMENTS DURING PUBLIC REVIEW

#### Repairs to Fort Jefferson Counterscarp and Dredging of Selected Areas Environmental Assessment Public Comment Summary Report May 2023

The comment period for the EA occurred from March 8, 2023 to April 10, 2023. A total of 11 correspondences were received, via web form. All correspondences were from unaffiliated individuals with 7 correspondences coming from Florida. Overall, comments on the EA were in support for the Preferred Alternative.

The following comments received during public review of the EA were considered substantive and thus the NPS has included a response below. Substantive comments 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.

	Concern(s)	NPS Response
1	A commenter is concerned about finer-grained sediments being introduced into the water	The National Park Service (NPS) recognizes this concern
	column near corals and seagrasses from the spoil placement on the beaches, and	and will take appropriate measures to prevent impacts.
	recommends additional best management practices be included in the EA.	The material for beach spoil placement below the Mean
		High Water Line (MHWL) is compatible with the native
	Representative Quote:	beach sand, as the material is comprised entirely of the
	"the NMFS is concerned about finer-grained sediments potentially being introduced	native sand. The sand within the moat (proposed dredge
	into the water column near corals and seavrass habitats through the heach placement	material) came directly from the location of the proposed
	activities Finer-grained sediments can attenuate light significantly more than coarser	heach spoil placement
	sediments because they settle more slowly and are more prone to resuspension, thus	beden spon placement.
	setuments because they settle more slowly and are more prone to resuspension, thus	
	Accordingly, the NMES offers two additional DMDs for heach placements.	
	Accordingly, the NMF'S offers two additional BMP's for beach placement.	
	Varifying the material for beach placement below the MHWL is compatible with the	
	-veryying the material for beach placement below the MITWL is compatible with the	
	<i>(i.e. waterial lass than 0.062 millimaters in diamater)</i>	
	(i.e., material less than 0.005 millimeters in alameter).	
	-Staking of the MHWL prior to placement of seatment on the beach to ensure the	
	activities associated with the upland component of the project are constructed entirely	
	landward of the MHWL"	
2	A commenter would like the NPS to provide opportunities for the public to be involved	The NPS provides opportunities for volunteers to assist
	with the implementation of the project in a hands-on way.	with a variety of projects at Dry Tortugas National Park.
		For additional information about the Volunteers-In-Parks
	Representative Quote:	

	Concern(s)	NPS Response
	"I think it beneficial to allow, perhaps through a lottery for people to assist and participate in the project on some level. These are OUR National Parks, and I think there are many people who would be proud to say they were hands on involved in the care of them beyond just staying on trails and not littering. Perhaps allow civic groups such as Boy Scouts to also be a part of the project in some way."	Program visit https://www.nps.gov/drto/getinvolved/volunteer.htm
3	<ul> <li>A commenter would like to see the following components included in the coral relocation project: <ul> <li>A monitoring plan for the surrounding non-relocated corals.</li> <li>A habitat suitability assessment and map of where the ~450 corals will be relocated to.</li> <li>A health screening for coral disease, particularly Stony Coral Tissue Loss Disease (SCTLD) of both the corals being moved, and the corals at the currently undisclosed relocation site(s).</li> </ul> </li> <li><b>Representative Quote:</b> <ul> <li>"we strongly recommend incorporating three additional components in the relocation project plan before work commences:</li> <li>A monitoring plan for the surrounding corals adjacent to the project site;</li> <li>A written habitat suitability assessment and map of where the ~450 corals will be relocated to; and</li> <li>A health screening for coral disease, particularly Stony Coral Tissue Loss Disease (SCTLD) of both the corals being moved, and the corals at the currently undisclosed relocation site(s).</li> </ul> </li> <li>* We believe a monitoring plan for the non-relocated coral species is warranted. In other words, several timeframes should be selected wherein the original consultant and NPS staff that undertook the baseline coral survey will carry out additional monitoring surveys both during and after project construction activities are completed. The monitoring data collected should include the health status of each coral colony surveyed, such that comparisons of coral health from the baseline, to during-project, to post-project completion can be drawn."</li> </ul>	The coral relocation project is not part of this EA. The coral relocation was described and analyzed under a separate NEPA action by the NPS. Best management practices (BMPs) will be implemented. There is a monitoring plan described as part of the coral relocation plan that meets the requirements of the regulatory agencies. A habitat suitability assessment was conducted by trained staff and confirmed the suitability of the proposed recipient site(s). A map was generated to show those locations. As part of the coral relocation plan, corals are screened for disease and diseased corals will not be relocated to recipient sites. Coral disease monitoring and intervention/treatment occurs at both the removal and the recipient sites and will continue. It should be noted that diseases such as SCTLD are ubiquitous throughout the park (and greater region) including both removal and recipient sites. There are no locations within the park that have not been impacted by SCTLD.
	underscore the need to carefully assess the health of the 450 corals before they are	

	Concern(s)	NPS Response
	relocated, in order to prevent any inadvertent spread of this highly transmissible coral disease that has been devastating to the health of the Florida Reef Tract. Conversely, once the health of the 450 corals is verified, location sites should be carefully examined for signs of SCTLD, as well. Dobbeleare et al. (2020) summarizes that SCTLD can be transmitted via direct contact between diseased corals or through the water column, and since the disease has such a high mortality and transmissivity rate, NPCA strongly recommends taking additional precautions with the relocation project."	
4	<ul> <li>A commenter is advocating for best practices to be utilized during the coral relocation effort.</li> <li>Representative Quote: <ul> <li>"we strongly advocate for best practices to be utilized during the coral relocation effort overall. As with the relocation site details, the specific relocation</li> <li>practices/methodology was also not disclosed in the EA; NPCA advises that future project documentation should disclose such details to the public. Disclosure can help the public to determine whether additional information on best practices may be available that would benefit the Park Service and its contractors in their project planning efforts. For example, based on a review of scientific literature, it can be stated that several factors are generally known to help influence success of coral transplantation or relocation efforts:</li> <li>Careful selection of donor and recipient sites: selecting sites with similar environmental conditions to minimize the stress on the transplanted corals.</li> <li>Adequate preparation of the donor site: ensuring that the corals to be transplanted are healthy and free from disease, and that any damage to the donor site is avoided or minimized.</li> <li>Careful handling and transport of the corals: minimizing the amount of time corals spend out of the water, and ensuring that they are kept cool and moist to reduce stress.</li> <li>Adequate monitoring and maintenance of the transplanted corals: monitoring for signs of stress, disease, or mortality, and providing necessary maintenance such as cleaning and removing competing organisms.</li> </ul> </li> <li>Conversely, factors that are known to lead to death or mortality of corals that are relocated and/or transplanted include:</li> <li>High levels of stress during relocation and/or transplantation: if corals are exposed to high levels of stress, such as from physical damage or changes in water temperature or</li> </ul>	A Coral Relocation Plan associated with the coral relocation project was prepared by the NPS and coordinated and approved by the Florida Department of Environmental Protection (FDEP).
	quality, they may not survive.	

	Concern(s)	NPS Response
	<ul> <li>Unsuitable environmental conditions at the recipient site: if the environmental conditions at the recipient site are significantly different from those at the donor site, the transplanted corals may not be able to adapt and survive.</li> <li>Damage to corals during transplantation: if corals are not handled carefully during transplantation, or if they are damaged during transport, they may not survive.</li> <li>Competition from other organisms: if transplanted corals are unable to compete with other organisms at the recipient site, they may not survive. "</li> </ul>	
5	A commenter would like more information on the climate change framework the NPS is utilizing as a basis for the EA. <b>Representative Quote:</b> "The resist-accept-direct (RAD) approach is a flexible framework for managing resources affected by climate change. It consists of three phases that provide guidance for managers to respond to the unique challenges of climate change in a way that is appropriate for their specific resource or location, and it is applicable to both natural and cultural resources that the Park Service protects and manages. The first phase of the framework, "resist"; involves taking actions to resist or mitigate the impacts of climate change on resources. In the context of cultural resources, the resist phase might involve actions such as protecting historic buildings from the impacts of the current EA. Given that the current EA acknowledges that "despite the fort's overall high level of integrity, climate change and sea level rise threaten the counterscarp by causing severe undercutting and degradation of its foundations to the point of collapse,"; and that "the NPS recognizes the importance of addressing the effects of current and future climate change in planning efforts,"; it would be helpful for the NPS to clarify the climate framework the agency is utilizing as its basis for this project effort."	The purpose of the EA is to address damages caused by recent hurricanes. The engineering and design for the counterscarp repairs considered future impacts from climate change, specifically hurricanes and other extreme weather events. This project focuses on the "resist" approach to the Resist-Accept-Direct (RAD) Framework. Additional information on the RAD Framework can be found at www.nps.gov/subjects/climatechange/radframework.htm.
6	A commenter had comments regarding permits needed from the Florida Department of Environmental Protection (FDEP) and mitigation measures that will be required for the proposed action. <b>Representative Quote:</b> <i>"The referenced document has been reviewed by the Southeast District of DEP and following comments provided:</i>	As discussed in the FONSI, the NPS is in the process of applying for an ERP and Section 404 permit with the FDEP. In the EA, the need for an NPDES permit is included in the mitigation measures. As part of obtaining these environmental permits, the NPS will seek final Coastal Zone Management Act federal consistency concurrence from the Florida Coastal Management Program. Additionally, there are numerous mitigation measures in place in the event that cultural resources are inadvertently discovered during construction activities.

Concern(s)	NPS Response
1. The proposed activities may require an Environmental Resource Permitting (ERP)	
pursuant to Chapter 373, Florida Statutes and Chapter 62-330, F.A.C. ERP jurisdiction	
falls to the FDEP.	
2. If the site contains state jurisdictional wetlands, then the proposed development will	
require a State 404 permit from FDEP if	
jurisdictional WOTUS are located within the project footprint.	
3. Since the proposed site will disturb an acre or more of soil, an NPDES Stormwater	
CGP would be required; Construction activities that will result in the disturbance of 1	
Permit if stormwater from the activity has the potential to enter a surface water of the	
State or a municipal separate storm sewer system [Construction GP Permit Rule 62-	
621 300(4)(a). Florida Administrative Codel	
If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout	
canoes, metal implements, historic building materials, or any other physical remains	
that could be associated with Native American, early European, or American settlement	
are encountered at any time within the project site area, the permitted project shall	
cease all activities involving subsurface disturbance in the vicinity of the discovery. The	
applicant shall contact the Florida Department of State, Division of Historical	
Resources, Compliance Review Section at (850)-245-6333. Project activities shall not	
resume without verbal and/or written authorization. In the event that unmarked human	
and the proper authorities notified in accordance with Section 872.05 Florida Statutes	
and the proper dumornies notified in decordance with Section 672.05, 1 fortud Statutes	
Based on the information submitted and minimal project impacts, the state has no	
objections to allocation of federal funds for the subject project and, therefore, the funding	
award is consistent with the Florida Coastal Management Program (FCMP). The state's	
final concurrence of the project's consistency with the FCMP will be determined during	
any environmental permitting processes, in accordance with Section 373.428, Florida	
Statutes, if applicable "	