

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

RIBAUT MONUMENT SHORELINE AND EMBANKMENT STABILIZATION


**TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE
DUVAL COUNTY, FLORIDA**

The Preferred Alternative does not constitute an action that normally requires preparation of an Environmental Impact Statement (EIS). The preferred alternative will not have a significant adverse effect on the human environment. There are no unmitigated adverse effects to the physical resources, water resources, natural resources, cultural resources, or other unique resources within the region. No highly uncertain or controversial impacts, unique or unknown risks or known cumulative effects were identified.

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in section 101 (a) of the National Environmental Policy Act of 1969 (NEPA) and that it will not significantly affect the quality of the human environment or otherwise include an condition requiring consultation pursuant to Section 102(2)(c) of NEPA.

Based on the forgoing, it is determined that an EIS is not required for this project and thus will not be prepared.

Recommended:



Barbara Goodman

Superintendent, Timucuan Ecological and Historic Preserve

10/12/10
Date

Approved:



For David Vela

Regional Director, National Park Service, Southeast Region

10/26/10
Date

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RIBAUT MONUMENT SHORELINE AND EMBANKMENT STABILIZATION

TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE DUVAL COUNTY, FLORIDA

BACKGROUND

Timucuan Ecological and Historic Preserve (TIMU) is located in Duval County in the city of Jacksonville in northeast Florida. The preserve is a 46,000 acre river valley formed by the Nassau River to the north and the St. Johns River to the south. These two rivers flow into the Atlantic Ocean located directly east of the preserve. Included within TIMU is Ft. Caroline National Memorial on the bank of the St. Johns River. A portion of Ft. Caroline National Memorial is the Ribault Monument, a stone monument to the founding of a French settlement in the 16th century.

Ribault Monument is situated on a high bluff overlooking St. Johns Creek. In the early 1960s, the National Park Service (NPS) constructed a wooden bulkhead at the base of the bluff to prevent the flow of St. Johns Creek from eroding the soils below the monument. At the time of this initial construction, the NPS only owned 300 feet of the creek bank.

The wooden bulkhead is approaching the end of its useful lifespan. Since the initial construction, the NPS has purchased an additional 200 linear feet of the creek bank. The NPS is proposing to replace the existing wooden bulkhead and extend the bulkhead to a total of 500 feet in length and tie the new bulkhead into an existing bulkhead constructed by the adjoining landowner. The NPS prepared an Environmental Assessment (EA) to evaluate the potential environmental impacts of various construction options to replace and extend the bulkhead on St. Johns Creek below the Ribault Monument.

PREFERRED ALTERNATIVE

Alternative 4, the Preferred Alternative in the EA (build 500 feet of metal wall with a 15-foot wide bench behind the wall) will not result in disturbance at the top of the slope where the Ribault Monument and several archeological sites are located. All construction activities will be located at the base of the embankment along St. Johns Creek. All construction equipment and metal retaining wall will be brought in by barge to Buck Island and then transported across St. Johns Creek via a temporary bridge that will allow water flow in and out of the creek. The new bulkhead will be placed waterward and immediately adjacent to the existing wooden bulkhead. The new metal bulkhead will be driven and/or vibrated into the ground. A 15-foot wide permanent shelf/bench will be excavated behind the bulkhead to allow for the construction and periodic maintenance of a series of pipes through the metal bulkhead to allow for equalization of water pressure and allow for catchment of any falling soils from the embankment as it stabilizes. There will be no disturbance to the existing vegetation except at the base of the slope for the catchment shelf/bench.

OTHER ALTERNATIVES CONSIDERED

Alternative 2 - Complete Clearing of Vegetation from the Slope and Installation of Engineered Stabilization Structures -called for the complete denuding of the slope and the installation of soil nails and erosion control mats to stabilize the slope face. While this alternative may have lead to a very secure slope in the long term, there was the possibility of a massive slope failure between the time when the trees and shrubs were removed and the installation of the soil nails and erosion control mats. In addition this alternative has a visual impact of the denuded slope.

Alternative 3 - Partial Clearing of Vegetation and Installation of Engineered Stabilization Structures would have similar impacts and potential for slope failure during construction but the area cleared would have been smaller and the potential of slope failure would have been less. The visual impacts were also decreased as the size of the area cleared was smaller in this alternative.

Alternative 1 - The No Action Alternative and Alternative 6 - Identification of a Setback of the Monument Area are virtually identical in that no construction would be undertaken and both alternatives would have resulted in the eventual failure of the existing wooden bulkhead. When the existing structure failed, it would allow erosion at the base of the slope by the tides and waves in St. Johns Creek. This erosion could eventually lead to enough soil loss from St. Johns Bluff that Ribault Monument could become unstable. The 200 feet of shoreline currently lacking a bulkhead would continue to erode.

Alternative 5 - Construction of a Bulkhead Without a Catchment Bench required larger and heavier gage metal sheet piles that greatly increased both the cost and the amount of vibrations from equipment needed to drive the metal sheet piles deeper into the substrate.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The Environmentally Preferred Alternative is determined by applying the criteria from Section 2.7 (D) of NPS Director's Orders 12. These are the same criteria outlined in the National Environmental Policy Act of 1969 (NEPA), which is guided by the Council of Environmental Quality (CEQ) regulations. The CEQ regulations provide direction that "the environmentally preferred alternative is the alternative that will best promote the national environmental policy" as expressed in Section 101 (b) in NEPA:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assure all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
3. Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
4. Preserve important historic, cultural, and natural aspects of our national heritage and maintain whenever possible, an environment that supports diversity and variety of individual choices;

5. Achieve a balance between population and resource use that would permit high standards of living and wide sharing of life's amenities, and
6. Enhances the quality of renewable resources and approach the maximum attainable recycling of non-renewable resources.

The No-Action Alternative would not meet the management goals and objectives of this park unit. In addition, this alternative does not realize the provisions of the national environmental policy goals. Although the No Action Alternative would not create any additional disturbance, the existing conditions would continue without providing additional benefits to the protection of Ribault Monument, St. Johns Bluff and the associated archeological sites located near Ribault Monument.

Alternatives 2 and 3 call for removal of vegetation on the slope face followed by the addition of soil nails and would not meet TIMU purposes and potentially could result in adverse impacts to the archeological sites at the top of the slope and to Ribault Monument itself.

Alternative 5 would require the metal to be longer and therefore would require increased vibrations and heavier grade metal and have the potential to increase impacts to the site from increased noise and duration.

Alternative 4 is the environmentally preferred alternative as it best balances the needs of the project for stabilization of the shoreline and protection of Ribault Monument with protection of the cultural and natural resources.

THE PREFERRED ALTERNATIVE AND SIGNIFICANCE CRITERIA

This project is determined to be exempt from the wetland statement of findings requirement under Director's Order #77-1 because it involves the replacement of existing infrastructure and impacts less than 0.1 acres total. The temporary wetland impacts will be mitigated with planned *Spartina* planting following construction.

As defined in 40 CFR§ 1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse

The Preferred Alternative will have:

- **ADVERSE IMPACTS TO PHYSICAL AND NATURAL RESOURCES:**
The construction phase of the Preferred Alternative will have short-term, minor, adverse impacts to several resources from temporary access for machinery during construction of the seawall and bench including soils, air quality, noise, water quality, coastal zone, wildlife and aquatic resources (including aquatic vegetation). The Preferred Alternative was determined that it may affect but not likely to adversely affect the West Indian manatee. There will be short term, minor impacts to wetlands, specifically impacts to shoreline vegetation, including *Spartina* and *Juncus*.
- **ADVERSE IMPACTS TO SOCIOECONOMIC RESOURCES:**

The Preferred Alternative will not affect resources outside the park boundaries, such as demographics, economy, housing or land use. A minor temporary increase in jobs may occur during construction; however this would be a negligible impact on local socioeconomic conditions.

- **BENEFICIAL IMPACTS:**

The Preferred Alternative will have long-term, beneficial impacts on many resources including recreation, visitor use and experience, public health and safety, archeological and improved water quality from reduced erosion into St. Johns Creek.

Impacts will not be significant and will not result in impairment to TIMU resources.

The degree to which the actions affect public health and safety:

The Preferred Alternative will replace the failing bulkhead and extend the length of the bulkhead an additional 200 feet. The new bulkhead will prevent erosion at the base of St. Johns Bluff and help protect Ribault Monument. This area is a public use area that provides access for park visitors to approach the Ribault Monument and affords a view of the St. Johns River from over 80 feet in elevation.

Unique characteristics of the geographic areas such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas:

The Preferred Alternative will create short-term, minor, adverse impacts to the coastal zone due to temporary access across St. Johns Creek and turbidity during construction; however, the proposed project will be consistent with the Florida Coastal Management Program (FCMP) enforceable policies. In a letter dated March 15, 2010, the Florida Department of Environmental Protection has determined that the proposed project activities are consistent with the FCMP.

The Preferred Alternative will cause minor short-term impacts to the floodplain, specifically the aquatic vegetation along St. Johns Creek that may be buried during the construction phase. In a letter dated July 21, 2010, the National Marine Fisheries Service reviewed the Essential Fish Habitat Assessment and determined that EFH conservation recommendations were not necessary.

The Preferred Alternative calls for all construction activities to be carried out at the base of St. Johns Bluff. This will avoid any potential impact to archeological and cultural sites which are located in the vicinity of Ribault Monument.

Degree to which the effects on the quality of human environment are likely to be highly controversial:

The Preferred Alternative's overall effects on the human environment will be beneficial as a result of construction of a new bulkhead. The new bulkhead will provide for the long-term

stability of St. Johns Bluff, therefore allowing visitor access to the view of the St. Johns River and the ability to visit Ribault Monument.

Degree to which the possible effects on the quality of human environment are highly uncertain or involve unique or unknown risks:

Risks identified in the Preferred Alternative relate to recreation, aesthetics, visitor use and experience. During the construction phase, visitor use and experience will be restricted for safety reasons. Visitors and park neighbors will be impacted by the noise and sight of construction. At the conclusion of the project, there will be long-term beneficial impacts to both the recreation and visitor use and experience. Therefore, there will be no highly uncertain, unique or unknown risks associated with the Preferred Alternative.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration;

The Preferred Alternative neither establishes a precedent for future action with significant effects nor represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

Minor, cumulative impacts to water quality and the coastal zone are anticipated from implementation of the bulkhead construction project. While the NPS has no anticipated projects in the vicinity, other agencies have potential construction projects in the area that may have long-term cumulative effects. These include various projects involving Buck Island (including the addition and removal of dredge spoils) and the deepening of the St. Johns River channel. The bulkhead construction project for the long term protection of Ribault Monument and the decrease in erosion at the base of St. Johns Bluff is not likely to result in impacts on either Buck Island activities or the deepening of the River channel. Based on the above, this project is not related to other actions with individually insignificant but cumulatively significant impact.

Degree to which the action may adversely affect districts, site, highways, structures or objects listed on the National register of Historic Places (NRHP) or may cause loss of destruction of significant scientific, cultural, or historic resources:

The Preferred Alternative would provide for the long-term stabilization of Ribault Monument and several archeological sites near the Ribault Monument. Ribault Monument and the archeological sites at the top of St. Johns Bluff are listed on the NRHP. As proposed, the construction activities will be confined to the base of the St. Johns Bluff and avoid any impact to these culturally significant sites. The NPS has consulted with the State Historic Preservation Office who, in a letter dated February 8, 2010, concurred with the NPS determination that the project will have no adverse effects on historic properties.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat;

Through consultation with the U.S. Fish and Wildlife Service, National Marine Fisheries Service and the Florida Fish and Wildlife Conservation Commission, the only potential listed species that may be impacted would be the West Indian manatee. The NPS will implement the Standard Manatee Construction Conditions during the construction of the bulkhead (EA page 65).

Whether the action threatens a violation of Federal, State or local environmental protection laws:

The Preferred Alternative violates no federal, state or local environmental laws.

IMPAIRMENT STATEMENT

The NPS has determined that implementation of the Preferred Alternative will not constitute an impairment to TIMU's resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in the Environmental Assessment, public comments received, relevant scientific studies, and the professional judgment of the decision maker guided by the direction in the NPS *Management Policies 2006*. Although the project will have some adverse impacts, in all cases these adverse impacts will be the result of providing a new bulkhead to prevent erosion to the toe of St. Johns Bluff and to provide long-term protection to Ribault Monument. Overall the proposed action will result in benefits to TIMU resources and values.

MITIGATION MEASURES FOR THE PREFERRED ALTERNATIVE

To minimize resource impacts, the following mitigation measures were part of the analysis in the Environmental Assessment and will be followed during the implementation of the Preferred Alternative. These actions will lessen the potential for adverse effects of the Preferred Alternative and have been proven to be very effective in reducing environmental impacts in other projects.

Mitigation Measures

Impact Topic	Mitigations
Noise	Pile driving to occur on weekdays from 8:00am to 5:00pm
Water Quality	<ul style="list-style-type: none"> • Best management practices and control measures will be used during the work in St. Johns Creek • Sedimentation and erosion control measures will include silt fences, sand bags, and storm management techniques.
Endangered and sensitive Species	<ul style="list-style-type: none"> • Standard manatee avoidance practices will be used for the transportation of equipment and supplies to Buck Island • Area of potential disturbance will be surveyed prior to disturbance for gopher tortoises. • Avoidance of bird use areas on Buck Island
Aquatic resources	<ul style="list-style-type: none"> • Replanting of Spartina in St. Johns Creek adjacent to the new seawall.

PUBLIC INVOLVEMENT

Public involvement was integrated throughout the planning process. Agency coordination letters were mailed to approximately 20 agencies on January 25, 2010. This included letters to the U.S. Fish and Wildlife Service, the Florida State Historic Preservation Office and the National Marine Fisheries Service. On January 25, 2010, a letter announcing the availability of the EA was mailed to 50 park neighbors and interested parties, 26 political (federal, state and county) entities, 6 news outlets, 16 non-government organizations and 6 university-affiliated individuals.

Responses were received from the Florida Historic Preservation Officer who, in a letter dated February 8, 2010, agreed with the NPS determination that the Preferred Alternative will have no adverse effects on historic properties. The Florida Department of Environmental Protection replied on March 15, 2010 and agreed with our proposed mitigation efforts outlined above. The National Marine Fisheries Service closed consultation in their letter dated July 21, 2010.

We received comments from 12 neighbors who live adjacent to, or nearby, the proposed construction area. Eleven of the 12 comments from neighbors were combined into a single letter with 11 signatures. The final comment from a park neighbor was received via email. The comments all supported the replacement and expansion in length of the bulkhead but also encouraged the dredging of St. Johns Creek so that it resembled the depths that were in existence approximately 20 years ago.

No comments were received via the NPS Planning, Environment and Public Comment (PEPC) system. The EA was posted to this system on January 25, 2010.