

APPENDIX A: AGENCY COORDINATION LETTERS

DEC 20 2010

In Reply Refer to: HFPP-15

Ms. Carol Bernstein
Coastal Branch Chief, Regulatory Division
U.S. Army Corps of Engineers, Savannah District
ATTN: CESAS-RD-C
PO Box 889
100 West Oglethorpe Avenue
Savannah, GA 31402

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

Dear Ms. Bernstein:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The Environmental Assessment will analyze a range of bridge repair and replacement alternatives. Repairs to the bridge or replacement of the bridge have the potential to impact to wetlands and waters of the United States and also to the navigability of the Channel.

A wetland delineation will be completed to support the Environmental Assessment; however, FHWA appreciates your early review of the project to identify any potential concerns. A quad map indicating the study area is enclosed. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures



cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast
Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA

DEC 20 2010

In Reply Refer to: HFPP-15

Mr. Barry Dragon
Bridge Branch Chief
USCG Seventh District
Brickell Plaza Federal Building
909 SE 1st Avenue
Miami, FL 33131-3050

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

Dear Mr. Dragon:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The Environmental Assessment will analyze a range of bridge repair and replacement alternatives. Repairs to the bridge or replacement of the bridge have the potential to impact navigation along the South Channel of the Savannah River.

Please review the proposed project and provide us with comments and information in regard to potential impacts to navigation in the South Channel of the Savannah River. If possible, please identify specific areas where concerns are present, and include any required or suggested measures to avoid or minimize impacts. A quad map indicating the study area is enclosed. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures



cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA

FEB 17 2011

In Reply Refer to: HFPP-15

Mr. Barry Dragon
Bridge Branch Chief
USCG Seventh District
Brickell Plaza Federal Building
909 SE 1st Avenue
Miami, FL 33131-3050

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge Rehabilitation/Replacement
Cooperating Agency Request

Dear Mr. Dragon:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The EA will analyze a range of bridge repair and replacement alternatives.

FHWA would like to invite the Coast Guard to be a Cooperating Agency because proposed alternatives may impact navigation in the South Channel of the Savannah River. Upon completion, the EA should include information in the project environmental documents that cooperating agencies need to discharge their NEPA responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.



We look forward to your response to this request. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA

Mr. Brodie Rich, Federal Permitting Agent, Coast Guard Bridge Branch, Miami, FL

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
Seventh Coast Guard District

909 SE First Avenue
Miami, FL 33131-3028
Staff Symbol: dpb
Phone: (305) 415-6736
Fax: (305) 415-6763
Email: Brodie.E.Rich@uscg.mil

16591/1071
Ser: 1992
February 25, 2011

Mr. Kevin Rose
Environmental Compliance Specialist
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, VA 20166-5611

Dear Mr. Rose:

This is in response to your letter dated February 17, 2011, requesting that we accept the designation as Cooperating Agency for the environmental documentation about the proposed repair and/or replacement of the Fort Pulaski Bridge across the South Channel Savannah River, mile 0.8, Savannah, Georgia.

If the existing bridge is repaired or rehabilitated than a Coast Guard bridge permit will not be required, so we would not need an environmental document. It is inherent within the existing bridge permit for the bridge that it be maintained, kept in good repair and remains operational. However, if the existing bridge structure is proposed to be replaced, than we will adopt the proposed environmental document for the processing of a new Coast Guard bridge permit for the new replacement bridge structure.

We, therefore, accept the designation as Cooperating Agency for the proposed environmental documentation relative to the replacement of the existing Fort Pulaski Bridge structure.

If you have any questions about our permitting requirements, please feel free to contact me at (305)415-6736.

Sincerely,

A handwritten signature in blue ink that reads "Brodie E. Rich".

BRODIE E. RICH
Bridge Management Specialist
U. S. Coast Guard
By direction

MAR 26 2014

In Reply Refer to: HFPP-15

Mr. Barry Dragon
Bridge Branch Chief
USCG Seventh District
Brickell Plaza Federal Building
909 SE 1st Avenue
Miami, FL 33131-3050

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

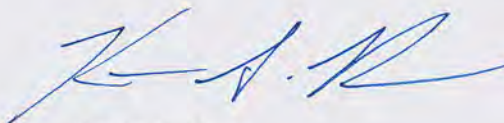
Dear Mr. Dragon:

The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge, located in Chatham County, Georgia in January 2013. The NPS and FHWA coordinated with your office during the scoping for this EA. Alternative D: Rehabilitation of the Existing Bridge was identified as the preferred alternative in the EA, and so further coordination regarding a Coast Guard Bridge permit was not required. In the EA, the replacement of the existing bridge with a new, two-lane bridge on the existing alignment was analyzed in detail as one of the alternatives. The replacement of the existing bridge with a new, two-lane bridge on a new alignment adjacent to the existing bridge was dismissed from further analysis in the EA due to unreasonable cost. After further review of the cost estimates of the proposed alternatives, and investigation of the use of alternative bridge types, the NPS and FHWA would now like to consider the replacement of the existing bridge with a new, two-lane bridge as the preferred alternative instead of rehabilitating the existing bridge. The new bridge would be comprised of precast concrete "I" beams and would have 12 piers. The profile of the bridge would be raised by approximately 4.5 feet, but the low chord elevation would remain the same as the existing bridge. The new bridge would be constructed immediately adjacent to the existing structure. The existing bridge would be removed after the new bridge is completed.

An EA is underway to document the impacts of the new preferred alternative. The replacement of the existing bridge with a new bridge would require a Coast Guard bridge permit. The NPS and FHWA would like to invite the U.S. Coast Guard to be a Cooperating Agency for this EA. Upon completion, the EA should include information in the project environmental documents that cooperating agencies need to support their NEPA responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

Please provide us with your response within 30 days of the receipt of this letter. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument
Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument
Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region
Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region
Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region
Mr. Brodie Rich, Bridge Administration Branch, U.S. Coast Guard District Seven

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
Seventh Coast Guard District

909 SE 1st Ave. Ste 432
Miami, FL 33131-3028
Staff Symbol: (dpb)
Phone: (305) 415-6747
E-mail: William.G.Tate@Uscg.Mil

16475
July 18, 2014

Lisa T. Landers
Environmental Protection Specialist
Eastern Federal Lands Highway Division
Federal Highway Administration
21400 Ridgetop Circle
Sterling, VA 20166

Via e-mail to: Lisa.Landers@dot.gov

In reference to your e-mail dated July 18, 2014, this is to confirm that the Coast Guard will participate as a cooperating agency in the environmental review process for the replacement of the Fort Pulaski Bridge, located in Chatham County, Georgia. As the Coast Guard Seventh District Bridge Branch representative, I accept the invitation to be a cooperating agency in accordance with 40 CFR 1501.6 and as such provide comments concerning proposed bridges over navigable waterways of the United States that fall within the project corridor.

If you have any questions please call me at (305) 415-6747 or e-mail me at William.G.Tate@Uscg.Mil

Regards,

A handwritten signature in blue ink, appearing to read "W. Gwin Tate III".

W. GWIN TATE III
Bridge Management Specialist
Seventh Coast Guard District
By direction

DEC 20 2010

In Reply Refer to: HFPP-15

Mr. Matt Elliott
Georgia Natural Heritage Program
Wildlife & Natural Heritage Section
Georgia Department of Natural Resources
2065 US Hwy. 278 SE
Social Circle, GA 30025

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

Dear Mr. Elliott:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The Environmental Assessment will analyze a range of bridge repair and replacement alternatives. Repairs to the bridge or replacement of the bridge have the potential to impact species protected by the State of Georgia.

Please review the proposed project and provide us with comments and information in regard to potential impacts to any protected species. If possible, please identify specific areas where concerns are present, and include any required or suggested measures to avoid or minimize impacts. A quad map indicating the study area is enclosed. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures



cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast
Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA



MARK WILLIAMS
COMMISSIONER

DAN FORSTER
DIRECTOR

January 18, 2011

Kevin Rose
Environmental Compliance Specialist
US Dept. of Transportation, Federal Hwy Administration
21400 Ridgetop Circle
Sterling, VA 20166-6511

Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Fort Pulaski Bridge Repair or Replacement, Chatham County, Georgia

Dear Mr. Rose:

This is in response to your request of December 20, 2010. According to our records, within a three-mile radius of the project site there are the following Natural Heritage Database occurrences:

- Acacia farnesiana* (Sweet Acacia) approx. 0.5 mi. NE of site
- GA *Forestiera segregata* (Florida Wild Privet) approx. 0.5 mi. SE of site
- GA *Forestiera segregata* (Florida Wild Privet) approx. 1.0 mi. SE of site
- GA *Haematopus palliatus* (American Oystercatcher) approx. 2.5 mi. SW of site
- GA *Haliaeetus leucocephalus* (Bald Eagle) approx. 2.0 mi. NW of site
- Lasiurus intermedius* (Northern Yellow Bat) 0.4 mi. N of site
- GA *Malaclemys terrapin* (Diamondback Terrapin) approx. 2.5 mi. W of site
- Nycticorax nycticorax* (Black-crowned Night-heron) [HISTORIC] approx. 2.5 mi. E of site
- Pseudorca crassidens* (False Killer Whale) approx. 2.5 mi. E of site
- GA *Rynchops niger* (Black Skimmer) [HISTORIC?] approx. 1.0 mi. N of site
- GA *Sternula antillarum* (Least Tern) [HISTORIC] approx. 2.0 mi. NW of site
- US *Trichechus manatus* (Manatee) on site in tidal waters
- Fort Pulaski National Monument [National Park Service] on site
- Little Tybee-Cabbage Island NA [Department of Natural Resources] approx. 2.0 mi. S of site
- Savannah River [High Priority Stream] 0.2 mi. SW of site
- Tybee Island Tract [Department of Natural Resources] approx. 2.0 mi. E of site

* Entries above preceded by "US" indicates species with federal status (Protected, Candidate or Partial Status). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

Recommendations:

A federally listed species, *Trichechus manatus* (Manatee) may be found at this site. Section 9 of the Endangered Species Act states that taking or harming of a listed species is prohibited. We recommend all requestors with projects located near federally protected species consult with the United States Fish and Wildlife Service. For southeast Georgia, please contact Strant Colwell (912-265-9336, ext.30 or Strant_Colwell@fws.gov). In southwest Georgia, please contact John Doresky (706-544-6999 or John_Doresky@fws.gov). In north Georgia, please contact Robin Goodloe (706-613-9493, ext.221 or Robin_Goodloe@fws.gov).

We also have a record of a nesting Bald Eagle (*Haliaeetus leucocephalus*) within three miles of the proposed project. Although Bald Eagles are no longer considered an endangered species, they are still protected by the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act and the Georgia Endangered Species Act. These Acts continue to protect bald eagles from potentially harmful human activities. For more information on how to prevent impacts to bald eagles that could violate the Eagle Act, download the National Bald Eagle Management Guidelines:

<http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>

Please minimize disturbance to stream banks, wetlands, and riparian zones during bridge rehabilitation. Conduct activities from a stable stream bank or reinforced platform that does not cause degradation or destabilization of stream banks. Prohibit operation of equipment in the channel or use of the channel as a ford. We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g., vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the stream during or after construction. No uncured concrete or water used to facilitate curing should be discharged directly into the stream; curing water should be pumped into filter bags (i.e., "dirt bags") or detention basins before coffer dams or other diversion structures are dismantled. These measures will help protect water quality in the vicinity of the bridge crossings as well as downstream.

Before any bridge work is completed, please survey the bridge for roosting birds and bats. If any are present, please delay bridge work until the birds and/or bats are no longer using the site.

Please also keep in mind that this project occurs near the Savannah River, a high priority stream. As part of an effort to develop a comprehensive wildlife conservation strategy for the state of Georgia, the Wildlife Resources division has developed and mapped a list of streams that are important to the protection or restoration of rare aquatic species and aquatic communities. High priority waters and their surrounding watersheds are a high priority for a broad array of

conservation activities, but do not receive any additional legal protections. We now have GIS ESRI shapefiles of GA high priority waters available on our website (<http://www.georgiawildlife.com/content/displaycontent.asp?txtDocument=89&txtPage=13>). Please contact the Georgia Natural Heritage Program if you would like additional information on high priority waters.

Data Available on the Nongame Conservation Section Website

By visiting the Nongame Conservation Section Website you can view the highest priority species and natural community information by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>

An ESRI shape file of our highest priority species and natural community data by quarter quad and county is also available. It can be downloaded from:

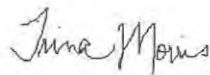
<http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/zip/gnhpds.zip>

Disclaimer:

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section comes from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



Katrina Morris
Environmental Review Coordinator

AUG -1 2014

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Ms. Kelie Moore
Georgia Department of Natural Resources
Coastal Resources Division
1 Conservation Way
Brunswick, GA 31520-8686

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project
Fort Pulaski National Monument

Dear Ms. Moore:

The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge, located in Chatham County, Georgia in January 2013. In the EA, the replacement of the existing bridge with a new, two-lane bridge on the existing alignment was analyzed in detail; however, this alternative was not identified as the preferred alternative. The replacement of the existing bridge with a new, two-lane bridge on a new alignment adjacent to the existing bridge was dismissed from further analysis in the EA due to unreasonable cost.

After further review of the cost estimates of the proposed alternatives, and investigation of the use of alternative bridge types, the FHWA and NPS would like to now consider the replacement of the existing bridge with a new, two-lane bridge as the preferred alternative instead of rehabilitating the existing bridge. The new bridge would be comprised of precast concrete "I" beams and would have 12 piers. The new bridge would be constructed immediately adjacent to the existing structure, limiting the disturbance to the adjacent salt marsh to the extent possible. The existing bridge would be removed after the new bridge is completed and the abutment area would be restored to salt marsh. Replacement of the bridge would impact the salt marsh and the South Channel of the Savannah River. The preliminary estimate is that approximately 0.45 acres of salt marsh would be impacted by the construction of the new bridge and approximately 0.51 acres is available for restoration to salt marsh after the existing bridge is removed.

Please provide us with your comments regarding the replacement of the bridge and any measures we can include to minimize impacts of the project within 30 days of the receipt of this letter. We are in the process of revising the Federal Consistency Determination, which will be submitted to your office with the EA when it is released for public review. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument

Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region

Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region

Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region



MARK WILLIAMS
COMMISSIONER

A.G. 'SPUD' WOODWARD
DIRECTOR

October 22, 2014

Ms. Lisa Landers
USDOT FHA
21400 Ridgetop Circle
Sterling, Virginia 20166-6511

RE: PRA-FOPU 10(3), Fort Pulaski Bridge Project, Fort Pulaski National Monument, HFPP-15

Dear Ms. Landers:

Staff of the Georgia Coastal Management Program reviewed your August 1, 2014 letter, visited the site September 17, 2014, and had numerous conversations regarding replacement of the Fort Pulaski Bridge. The upstream alignment is now the preferred alternative and will impact approximately 0.40 acres of tidal wetlands, which will require 3.64 mitigation credits. Once the old bridge is removed the 0.50-acre abutment areas will be restored to provide 2.1 mitigation credits. Federal guidelines require an additional 1.54 credits of mitigation for this project. Discussions with federal and state resource agencies are ongoing to develop mitigation options.

If the Department of Transportation (DOT) is the lead agency and applicant for the U.S. Corps of Engineers' (USACE) permit, they will be exempt from obtaining a permit under the Georgia Coastal Marshlands Protection Act [O.C.G.A. 12-5-295(1)]. If the National Park Service is the applicant for the USACE permit, they may not be exempt and a Coastal Marshlands Protection Act permit may be required. A Revocable License Authorization will be required to utilize State-owned tidal water bottoms [O.C.G.A. 50-16-61, *et seq.*]. A buffer variance under the Georgia Erosion and Sedimentation Act may be required from DNR's Environmental Protection Division for any land disturbing activities associated with construction of the new bridge as well as restoration and/or mitigation activities [O.C.G.A. 12-7-1, *et seq.*].

Generally speaking, the State does not allow temporary staging areas in tidal marshlands or water bottoms or the storage or stockpiling of materials. We look forward to continue working with you and other resource agencies to finalize all aspects of this proposed project. Please feel free to contact me if I can be of additional assistance.

Sincerely,

Kelie Moore
Federal Consistency Coordinator



U.S. Department
of Transportation
**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

JAN - 3 2011

In Reply Refer to: HFPP-15

Mr. Strant Colwell
U.S. Fish and Wildlife Service
4980 Wildlife Drive NE
Townsend, GA 31331

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

Dear Mr. Colwell:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Chatham County, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The Environmental Assessment will analyze a range of bridge repair and replacement alternatives. Repairs to the bridge or replacement of the bridge have the potential to impact federally-listed species per the Endangered Species Act of 1973.

Please review the proposed project and provide us with comments and information in regard to potential impacts to any federally-listed species and critical habitat. If possible, please identify specific areas where concerns are present, and include any required or suggested measures to avoid or minimize impacts. A quad map indicating the study area is enclosed. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,

Kevin S. Rose
Environmental Compliance Specialist

Enclosures



cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast
Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA



United States Department of the Interior

Fish and Wildlife Service

105 West Park Drive, Suite D
Athens, Georgia 30606
Phone: (706) 613-9493
Fax: (706) 613-6059

West Georgia Sub-Office
Post Office Box 52560
Fort Benning, Georgia 31995-2560
Phone: (706) 544-6428
Fax: (706) 544-6419

Coastal Sub-Office
4980 Wildlife Drive
Townsend, Georgia 31331
Phone: (912) 832-8739
Fax: (912) 832-8744

February 2, 2011

Lisa Landers
Federal Highway Administration
Eastern Federal Lands Highway Division
214000 Ridgetop Circle
Sterling, Virginia 20166-6511

Re: USFWS File Number 2011-0051

Dear Ms. Landers:

Thank you for your letter requesting a review of the information provided regarding the rehabilitation/replacement of the Fort Pulaski Bridge in Chatham County, Georgia. These comments are provided in accordance with provisions of the Endangered Species Act of 1973, as amended; (16 U.S.C. 1531 *et seq.*) and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*) to further the conservation of fish and wildlife resources and their habitat, including federally listed threatened and endangered species.

We recommend the consideration of inclusion of the following additional measures to minimize impacts to fish and wildlife resources:

1. Maintaining a minimal footprint for the bridge approaches through the saltmarsh.
2. If feasible, we recommend that the replacement structure incorporate fewer in-stream structures with minimization of the number of bents/piers in the stream channel. The existing structure has a large number of piers in the channel
3. West Indian manatee (*Trichechus manatus*) is on the Federal list as endangered and is known to occur in the Savannah River and the South Channel. Both current and long term threats from human-related activities are reasons for protecting the manatee under the ESA. The largest identified cause of manatee death is collisions with watercraft (USFWS, 2001). Manatees migrate northward from Florida to Georgia and are found in our coastal waters during all but the coldest months of the year. To

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FEDERAL HIGHWAY DIVISION
STERLING, VA

reduce the likelihood of collisions with manatees during federally permitted activities, the U. S. Fish and Wildlife Service, with cooperation from the U. S. Corps of Engineers (USACE), developed the enclosed 2007 Standard Manatee Conditions for Boating Facilities. We recommend that these Conditions be included in any work in manatee waters being authorized by the Savannah District USACE. We also enclosed the State's "Marine Facility Manatee Signs Placement Procedures" and depictions of "Temporary Construction Signs" that are mentioned in the Conditions.

4. The existing bridge does not appear to have lights on it. If feasible, we recommend that the new structure be designed in the same way, in this regard. Otherwise we recommend the use of minimal safety lighting on the bridge to minimize potential effects to sea turtles. Follow guidelines in "Coastal Roadway Lighting Manual" at <http://www.bstp.net/PDFs/FL%20Conservation%20Coastal%20Roadway%20Lighting%20manual.pdf>.

We appreciate the opportunity to comment during the planning stages of your project. If you have any additional questions, please write or call our Coastal Georgia Sub Office staff biologist, Christopher Coppola, at 912-832-8739 extension 6.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sandra S. Tucker".

Sandra S. Tucker
Field Supervisor

Handwritten initials "for" in blue ink.

Enclosures

cc: USFWS, Athens, Georgia

**2007 Standard Manatee Conditions for Boating Facilities
Savannah District – U. S .Army Corps of Engineers
January 2008**

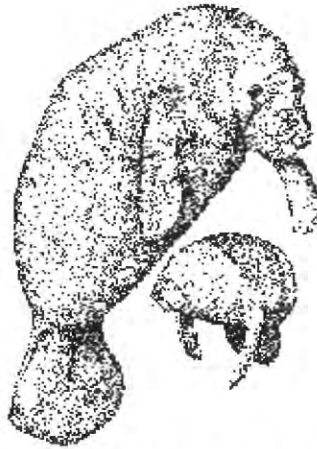
- a. The permittee agrees that all personnel associated with the project will be advised that there are civil and criminal penalties for harming, harassing or killing manatees, which are protected under the Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972. The permittee and contractor will be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.
- b. Siltation barriers will be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.
- c. All vessels associated with the project will operate at “no wake/idle” speeds at all times while in the construction area. All vessels will follow routes of deep water whenever possible.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatees. All construction and activities in open water will cease upon sighting of manatees within 50 feet of the project area. Construction activities will not resume until the manatees have left the project area for at least thirty minutes.
- e. Extreme care will be taken in lowering equipment or materials, including, but not limited to piles, sheet piles, casings for drilled shaft construction, spuds, pile templates, anchors, etc., below the water surface and into the stream bed; taking any precaution not to harm any manatee(s) that may have entered the construction area undetected. All such equipment or materials will be lowered at the lowest possible speed.
- f. The permittee agrees that all manatee collisions, injuries and mortalities shall be reported immediately to the US Army Corps of Engineers (912-652-5347), the US Fish and Wildlife Service Coastal Suboffice (912-265-9336), and Georgia Department of Natural Resources (GDNR; 800-2-SAVE-ME). Any dead manatee(s) found in the project area must be secured to a stable object to prevent the carcass from being moved by the current before the authorities arrive. In the event of injury or mortality of a manatee, all aquatic activity in the project area must cease pending section 7 consultation under the Endangered Species Act with the US Fish and Wildlife Service and the lead Federal agency.
- g. The permittee agrees that the contractor shall keep a log detailing sightings, collisions, or injury to manatees, which have occurred during the contract period.
- h. The permittee agrees that following project completion, a report summarizing the above incidents and sightings will be submitted to the US Fish and Wildlife Service, 4980 Wildlife Drive, NE, Townsend, Georgia 31331 and to the GDNR, Nongame Conservation Section, 1 Conservation Way, Brunswick, Georgia 31520.

- i. All temporary construction materials will be removed upon completion of the work, and salt marsh areas will be restored. No construction debris or trash will be discarded in the water.
- j. The permittee shall regularly maintain all hoses, faucets, and/or freshwater discharges to prevent freshwater leakage into manatee habitat. This minimizes attraction of manatees to the marina where boats are concentrated and a potential for increased boat/manatee collisions exists. Oil and sewage spill contingency plans should be in place for the marina to protect manatees.
- k. The permittee shall identify one or more individuals associated with the facility who can be contacted regarding manatee sightings, boat strikes, or other manatee-related concerns. Such individuals' contact information shall be submitted to the US Fish and Wildlife Service and GDNr at the addresses listed in condition "h". Any subsequent changes in contact information shall be reported also.
- l. Prior to initiation of construction, the permittee shall install temporary manatee awareness construction signs as outlined in the attached "Marine Facility Manatee Signs Procedures" (Attachment A). The signs shall be displayed and maintained throughout construction and shall be removed by the permittee upon completion of construction.
- m. Prior to operation of the facility, the permittee shall install two or more permanent manatee waterway signs on either end of the facility and in locations clearly visible from the navigation channel, as outlined in the attached "Marine Facility Manatee Signs Procedures" (Attachment A).
- n. Prior to operation of the facility, the permittee shall install one or more permanent manatee boater education signs as outlined in the attached "Marine Facility Manatee Signs Procedures" (Attachment A).
- o. Prior to operation of the facility, the permittee shall submit a notarized verification letter to the US Army Corps of Engineers, Savannah District Office, stating that all required permanent manatee signs have been installed (as outlined in "m" and "n" above and in Attachment A). It shall be the responsibility of the permittee to insure that permanent manatee signs are maintained in a clearly visible condition for the life of the facility.
- p. Prior to operation of the facility, the permittee shall develop and implement a manatee boater education and awareness program. The objectives of the education program shall be to educate all users of the facility about: 1) manatee biology, 2) the impacts of watercraft on manatees, and 3) ways that boaters can reduce the probability of impacting manatees. The permittee shall be responsible for overseeing development of the educational program, developing a strategy for implementing the program, and paying for all costs associated with development and implementation of the educational program. The permittee shall submit copies of all educational materials to the US Fish

and Wildlife Service and GDNr Nongame Conservation Section for approval prior to implementation of the program and operation of the facility. For information on education programs and manatee facts, please visit the web pages for the Florida Wildlife Conservation Commission, Bureau of Protected Species Management, Manatee Program (<http://floridaconservation.org/psm/manatee/>) and Save the Manatee Club (www.savethemanatee.org/). The US Fish and Wildlife Service also has examples of educational material.

Attachment A: Marine Facility Manatee Signs Placement Procedures, Temporary Construction Signs, Protect Georgia's Manatees Sign, Manatees Basics for Boaters

MARINE FACILITY MANATEE SIGNS PLACEMENT PROCEDURES



The West Indian manatee (*Trichechus manatus*) is an endangered species throughout its range. Manatees are protected at the Federal level by the Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972, as amended. Protection measures such as these signs are necessary to increase boater awareness. The increased level of Georgia coastal development and associated marinas and boat traffic will increase the probability of negative impacts to the seasonal manatee population. Manatees inhabit Georgia waters from March through November. The main threat to manatee populations is human related boat/barge collisions. Raising boater awareness and educating the public is necessary for manatee conservation in Georgia waters and has been proven effective.

The informational/educational display sign, "Manatee Basics for Boaters" and waterway display sign, "Protect Georgia's Manatees", are intended to increase boater awareness of manatees that are present in Georgia waters. These signs inform boaters of the potential threat boats pose to the animals and how to help decrease negative impacts caused by those recreational vessels. Although the placement of these signs is mandatory and required by permit, they are informative and non-regulatory in nature.

Procedure for Approval of Sign Installation:

1. The applicant should forward a project site plan, including the proposed location for the permanent signs to: Manatee Sign Approval, Nongame Conservation Section, Department of Natural Resources, One Conservation Way, Brunswick, Georgia 31520. The applicant should also include a chart indicating the location of the facility in relation to waterways, location within a given county (specify county name), Contact person with phone number, and the Permit and/or Lease number associated with the project

2. The Nongame Conservation Section of the Georgia Department of Natural Resources (GDNR) will review the proposed sign placement site plan and will respond to the applicant within 30 days. If the proposed location is unacceptable, guidance on an alternate site will be provided. The contact person should notify the Nongame Conservation Section when sign placement has been completed (912-264-7218). A photograph(s) of the posted manatee signage at your facility must be submitted with the required permit compliance form to the Marsh and Shore Regulatory Program of the Coastal Resources Division/Georgia Department of Natural Resources.
3. If during a site visit, approved signs, and their locations are found not to be in compliance with the instructions given in this document, relocation or addition of signs will be required. Annual site visits will be conducted to document sign placement and condition. All signs locations will be recorded in the GDNR manatee database.

Sign Placement Requirements:

Both "Manatee Basics for Boaters" and "Protect Georgia's Manatees" permanent signs are required for all facility types (marinas, community docks, etc.). Private single or dual family docks are not required to have manatee signs.

Approved Sign Suppliers:

The signs are available through the companies listed below and may also be available from other local suppliers throughout the state. Permit/lease holders, marinas, and boat docking/launching facilities should contact sign companies directly to obtain pricing information and arrange for shipping and billing.

Approved Suppliers of Manatee Signs:

Grafix, Inc.

455 Montgomery Street

Post Office Box 1028

Savannah, Georgia 31402

Voice: 912-691-1117

Fax: 912-232-3845

Image Sign Company

785 King George Blvd., Bldg. 3

Savannah, Georgia 31419

Voice: 912-961-1444

Fax: 912-961-1499

Doug Bean Signs, Inc.

160 Dean Forest Rd

Savannah, Georgia 31408

Voice: 912-964-1900

Fax: 912-964-2900

Fendig Signs

411 Arnold Rd

Saint Simons Island, Georgia 31522

Good & Associates

Saint Simons Island, Georgia

(912) 638-7664

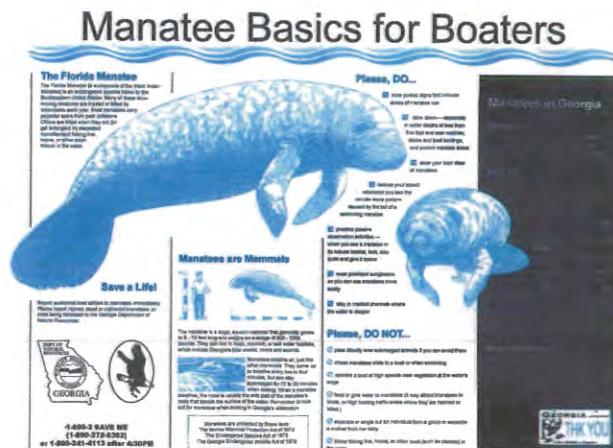
Temporary Construction Signs



Permanent Signs



“Protect Georgia’s Manatees” sign – At least one sign will be required to face the waterway for each facility. This is dependent upon the size of the facility and the number of docks/piers present. The number and placement of signs will be determined on a site-by-site basis by GDNR biologists. Each approach to the marina from the waterway to the facility will need a visible sign. This sign is intended to alert any passing boater that may or may not be associated with the facility that manatees may be present and again raise awareness of this endangered species.



“Manatee Basics for Boater” sign – One sign is required for each entry point to any dock /pier space. It should be placed where anyone boarding or launching a boat will easily see the sign. This sign is intended to provide detailed information about manatees, how to avoid negative impacts to manatees, and to raise awareness of their presence in Georgia to any person using the facility. Sign placement approval by the Nongame Conservation Section is required.



U.S. Department
of Transportation
**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

MAR 26 2014

In Reply Refer to: HFPP-15

Mr. Strant Colwell
Supervisory Biologist
U.S. Fish and Wildlife Service
Coastal Georgia Sub-Office
P.O. Box 52560
Fort Benning, GA 31995-2560

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project
Fort Pulaski National Monument
USFWS File Number 2011-0051
Re-Initiation of Information Consultation

Dear Mr. Colwell:

The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge, located in Chatham County Georgia in January 2013. In the EA, the replacement of the existing bridge with a new, two-lane bridge on the existing alignment was analyzed in detail; however, this alternative was not identified as the preferred alternative. The replacement of the existing bridge with a new, two-lane bridge on a new alignment adjacent to the existing bridge was dismissed from further analysis in the EA due to unreasonable cost. After further review of the cost estimates of the proposed alternatives, and investigation of the use of alternative bridge types, the FHWA and NPS would now like to consider the replacement of the existing bridge with a new, two-lane bridge on a new alignment as the preferred alternative. The new bridge would require the placement of piles and piers in the water, and the placement of riprap at the bridge abutments. A work barge and dewatering may be necessary in order to construct the bridge. The existing bridge would be removed after the new bridge is completed. The existing timber piles would be removed, and the abutment area would be restored. Approximately 0.45 acres of salt marsh would be impacted. The impacts would be minimized, and would be mitigated through the restoration of salt marsh after the existing bridge is removed and purchase of wetland bank credits, if necessary. Approximately 0.51 acres of existing road fill material would be removed and the area would be restored to salt marsh.

The West Indian manatee (*Trichechus manatus*) is known to be present in the project area. Recommendations provided in your letter dated February 2, 2011, would be incorporated into the project. The footprint of the bridge approaches through the saltmarsh would be reduced to the extent possible. The new bridge would require the installation of approximately 78 piles in the South Channel of the Savannah River, a reduction from the existing number of piles (330 piles). The 2007 Standard Manatee Conditions for Boating Facilities would be followed. Also, the new bridge would have no lighting.

The FHWA has determined that the proposed action may affect, but is not likely to adversely affect the West Indian manatee. The FHWA respectfully requests your concurrence with our determination. If you determine that any Federally-listed species may be present or affected by the proposed project, please provide any restrictions or mitigation requirements that should be included in the project plans and specifications in order to ensure that this project does not adversely affect any Federally-listed threatened or endangered species.

Enclosed you will find a topographic map and photos of the project area. Please provide us with your concurrence and/or comments within thirty (30) days of the receipt of this letter. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument

Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region

Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region

Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region



United States Department of the Interior

Fish and Wildlife Service

105 West Park Drive, Suite D
Athens, Georgia 30606
Phone: (706) 613-9493
Fax: (706) 613-6059

West Georgia Sub-Office
Post Office Box 52560
Fort Benning, Georgia 31995-2560
Phone: (706) 544-6428
Fax: (706) 544-6419

Coastal Sub-Office
4980 Wildlife Drive
Townsend, Georgia 31331
Phone: (912) 832-8739
Fax: (912) 832-8744

May 5, 2014

Lisa Landers
Federal Highway Administration
Eastern Federal Lands Highway Division
214000 Ridgetop Circle
Sterling, Virginia 20166-6511

Re: USFWS File Number 2014-0675

Dear Ms. Landers:

Thank you for your letter received April 4, 2014, initiating informal consultation for Federal Highway Administration project PRA-FOPU 10(03). The proposed project would replace the Fort Pulaski Bridge over the South Channel of the Savannah River in Chatham County, Georgia. These comments are provided in accordance with provisions of the Endangered Species Act of 1973 (ESA), as amended; (16 U.S.C. 1531 *et seq.*) and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*) to further the conservation of fish and wildlife resources and their habitat, including federally listed threatened and endangered species.

The field surveys of the project corridor identified suitable habitat for species listed under the ESA. The proposed project would impact 0.45 acres of salt marsh habitat at the new bridge location and would restore 0.51 acres of salt marsh at the existing bridge site. West Indian manatees (*Trichechus manatus*) are known to occupy and utilize the habitats within the proposed action area from late Spring through Autumn. The proposed new bridge will require 78 piles to be driven into the riverbed, and the demolition of the old bridge will remove 330 piles. A work barge will be employed to provide a stable platform from which to build the new bridge and demolish the old. To minimize risk of harm to the manatee, the 2007 Standard Manatee Conditions for Boating Facilities will be followed.

Based on the information provided in Environmental Assessment, we concur with your determination of "not likely to adversely affect" for the West Indian manatee. The requirements of section 7 of the ESA have been satisfied and no further consultation is required. However, obligations under section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner which was not considered in this assessment; or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

We appreciate the opportunity to comment on your project. If you have any additional questions, please write or call our Coastal Georgia Sub Office staff biologist, Christopher Coppola, at 912-832-8739 extension 6.

Sincerely,



Strant T. Colwell
Coastal Georgia Supervisor



Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

DEC 20 2010

In Reply Refer to: HFPP-15

Dr. David Crass
Deputy State Historic Preservation Officer
Georgia Historic Preservation Division
Department of Natural Resources
254 Washington Street, SW
Ground Level
Atlanta, GA 30334

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

Dear Dr. Crass:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The Environmental Assessment will analyze a range of bridge repair and replacement alternatives. Although the Fort Pulaski Bridge is not eligible for listing on the National Register of Historic Places, repairs to the bridge or replacement of the bridge have the potential to disturb the ground surrounding the existing bridge structure.

Please review the proposed project and provide us with comments and information in regard to potential impacts to any cultural resources and eligible or potentially eligible National Register of Historic Places properties. If possible, please identify specific areas where concerns are present, and include any required or suggested measures to avoid or minimize impacts. A quad map indicating the study area is enclosed.



If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA
Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast
Region, Atlanta, GA
Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA

AUG 23 2012

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Dr. David Crass
Deputy State Historic Preservation Officer
Georgia Historic Preservation Division
Department of Natural Resources
254 Washington Street, SW
Ground Level
Atlanta, GA 30334

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge
Fort Pulaski National Monument
Request for Concurrence

Dear Dr. Crass:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is preparing an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The preferred alternative in the Environmental Assessment, Rehabilitation of the Existing Bridge, would include installing fiber-reinforced polymer shells (FRP) on the deteriorated timber piles. The shell would be filled with epoxy grout to encapsulate the timber and protect it from further deterioration. The wrapping would extend approximately to but not below the mud line and above the high water level. Sections of severely deteriorated timber pile would be replaced, if needed. Additional substructure repairs would include replacing timber cross bracing and bent caps, installing timber corbels, and repairing concrete bent caps. Superstructure repairs would also be completed, and would likely consist of cleaning and painting all of the structural steel in the main span, cleaning exposed rebar in the bridge deck and diaphragms in the main span and coating them with protective sealant, and replacing timber deck shims. Riprap would also be placed around the bridge abutments.

The Fort Pulaski Bridge has been modified substantially from the original 1930's structure as a result of several repair and rehabilitation projects. The proposed repairs would be similar in nature to those already completed on the bridge. Therefore, the FHWA has determined that the proposed project would have no adverse effect to any historic structures or cultural resources. The FHWA requests your concurrence with our determination. Please respond within 30 days of the receipt of this letter. If no response is received, agreement with our determination will be assumed.

If you have any questions, or require any additional information, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA

 GEORGIA
DEPARTMENT OF NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION

MARK WILLIAMS
COMMISSIONER

DR. DAVID CRASS
DIVISION DIRECTOR

October 1, 2012

Kevin S. Rose
Environmental Compliance Specialist
Federal Highway Administration
U.S. Department of Transportation
21400 Ridgetop Circle
Sterling, Virginia 20166-6511
Attn: Lisa Landers, Lisa.Landers@dot.gov

**RE: Fort Pulaski National Monument: Repair/Replace Fort Pulaski Bridge, Savannah
PRA-FOPU 10(3)
Chatham County, Georgia
HP-101228-002**

Dear Mr. Rose:

The Historic Preservation Division (HPD) has reviewed the information submitted concerning the above referenced project. Our comments are offered to assist the National Park Service (NPS) in cooperation with the Federal Highway Administration (FHWA) in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

The subject project consists of repairs to the Fort Pulaski Bridge. HPD concurs that Fort Pulaski National Monument is listed in the National Register of Historic Places (NRHP). Based on the information provided, HPD concurs that the subject project, as proposed, will have **no adverse effect** to historic properties within its area of potential effects (APE), as defined in 36 CFR Part 800.5(d)(1).

This letter evidences consultation with our office for compliance with Section 106 of the NHPA. Please refer to project number **HP-101228-002** in any future correspondence on this project. If we may be of further assistance, please do not hesitate to contact Elizabeth Shirk, Environmental Review Coordinator, at (404) 651-6624.

Sincerely,



Karen Anderson-Cordova
Program Manager
Environmental Review and Preservation Planning

KAC:jad

Cc: Randy Wester, Superintendent, NPS
Tommy Jones, NPS
Lupita McClenning, Coastal Regional Commission of Georgia

APR - 9 2014

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Dr. Karen Anderson-Cordova
Attn: Environmental Review
Georgia Historic Preservation Division
Department of Natural Resources
254 Washington Street, SW
Ground Level
Atlanta, GA 30334

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge
Fort Pulaski National Monument
Re-initiation of Section 106 Consultation

Dear Dr. Anderson-Cordova:

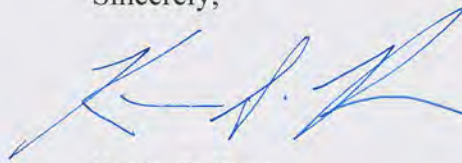
The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge, located in Chatham County Georgia in January 2013. In the EA, the replacement of the existing bridge with a new, two-lane bridge on the existing alignment was analyzed in detail; however, this alternative was not identified as the preferred alternative. The replacement of the existing bridge with a new, two-lane bridge on a new alignment adjacent to the existing bridge was dismissed from further analysis in the EA due to unreasonable cost. After further review of the cost estimates of the proposed alternatives, and investigation of the use of alternative bridge types, the FHWA and NPS would like to now consider the replacement of the existing bridge with a new, two-lane bridge as the preferred alternative instead of rehabilitating the existing bridge. The new bridge would be comprised of precast concrete "I" beams. The profile of the bridge would be raised by approximately 4.5 feet, and the bridge would have 12 piers. The type of bridge railing is currently under consideration. The new bridge would be constructed immediately adjacent to the existing structure, limiting the disturbance to previously undisturbed ground to the extent possible. A Phase I Archeological Investigation has been completed by the Southeast Archeological Center for the areas of new ground disturbance. No cultural materials or features were encountered in any of the shovel tests. The existing bridge would be removed after the new bridge is completed and the abutment area would be restored.

During prior Section 106 consultation for the rehabilitation alternative, the Georgia Historic Preservation Division concurred that the Monument is listed on the National Register of Historic Places, and that we would have no adverse effect to historic properties. The Fort Pulaski Bridge is on the Cultural Landscape Inventory for the Fort Pulaski National Monument and contributes to the cultural landscape. Therefore, the Fort Pulaski Bridge is considered by the NPS and

FHWA to be eligible for the National Register of Historic Places. The FHWA has determined that the proposed removal of the Fort Pulaski Bridge and replacement with a new bridge would be an adverse effect to the historic structure and the cultural landscape. The FHWA respectfully requests your concurrence with this determination. If your office concurs with the determination, a Memorandum of Agreement would be initiated to document the resolution of the adverse effects. The FHWA and NPS also propose to complete Historic American Engineering Record (HAER) documentation for the Fort Pulaski Bridge.

Enclosed you will find the archeological testing trip report, conceptual bridge design, as well as a visualization of the design for your review. Please provide us with your response within 30 days of the receipt of this letter. If you have any questions, or require any additional information, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument

Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region

Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region

Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region



HISTORIC PRESERVATION DIVISION

MARK WILLIAMS
COMMISSIONER

DR. DAVID CRASS
DIVISION DIRECTOR

April 30, 2014

Kevin S. Rose
Environmental Compliance Specialist
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgeway Circle
Sterling, VA 20166-6511

Re: PRA-FOPU 10(3), *Replacement of Fort Pulaski Bridge*
Chatham County, Georgia
HP-101228-002

Dear Mr. Rose:

The Historic Preservation Division (HPD) has received the documentation for the above-referenced project. Our comments are offered to assist the National Park Service (NPS) and the Federal Highway Administration (FHWA) in complying with the provisions of Section 106 of the National Historic Preservation Act, as amended.

The subject project consists of the demolition of Fort Pulaski Bridge located at Fort Pulaski National Monument. Based on the information provided, HPD concurs that the Fort Pulaski Bridge is eligible for the National Register of Historic Places (NRHP) as a contributing resource to Fort Pulaski's cultural landscape. As proposed, HPD concurs that the subject project constitutes an **adverse effect** to Fort Pulaski Bridge, as defined in 36 CFR Part 800.5(d)(1).

When an adverse effect to a historic property is found, the federal agency must notify the Advisory Council on Historic Preservation and consult with the State Historic Preservation Officer on ways to avoid or reduce adverse effects to historic properties. HPD would like to make it clear that this determination of adverse effect is not the end of the review process, and we look forward to assisting NPS and FHWA in finding ways to avoid, minimize, or mitigate this adverse effect. If demolition is the only feasible alternative, we look forward to consultation with NPS and FHWA to develop a Memorandum of Agreement to address the adverse effects associated with this undertaking. We would also like to request that the enclosed archaeological testing report be sent to HPD as a .PDF with optical character enabled in order to upload the report to the site files.

We look forward to working with you as this project progresses. Please refer to project number **HP-101228-002** in any future correspondence on this project. If we may be of further assistance, please do not hesitate to contact Jennifer Bedell, Review Archaeologist, at Jennifer.bedell@dnr.state.ga.us or (404) 657-1042 or Stephanie Jordan, Transportation Projects Coordinator, at (404) 463-6687 or Stephanie.jordan@dnr.state.ga.us

V/r,

Dr. David Crass
Division Director,
Deputy State Historic Preservation Officer

DCC:scj

Cc: Melissa Memory, Superintendent, Fort Pulaski National Monument



U.S. Department
of Transportation
**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

JUN 24 2014

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Dr. David Crass
Georgia Historic Preservation Division
Department of Natural Resources
254 Washington Street, SW
Ground Level
Atlanta, GA 30334

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge
Fort Pulaski National Monument
HP-101228-002

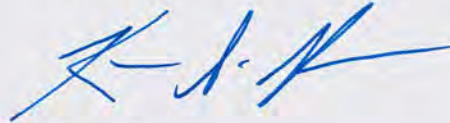
Dear Dr. Crass:

The Eastern Federal Lands Highway Division, of the Federal Highway Administration (FHWA), is in receipt of your letter dated April 30, 2014, regarding the subject project. The FHWA, in cooperation with the National Park Service (NPS), notified the Advisory Council on Historic Preservation (ACHP) regarding the adverse effect on the Fort Pulaski Bridge. By letter dated June 12, 2014, the ACHP determined that their participation in the consultation to resolve adverse effects was not needed. A copy of the letter is enclosed.

Recent assessments of the bridge have deemed it structurally deficient and its current configuration poses a safety hazard to pedestrians and bikers who must share the narrow bridge with vehicular traffic. The bridge provides the only ingress and egress to Fort Pulaski, so maintaining the bridge in a safe condition is essential to park operations. Demolition of the existing bridge and the construction of a new bridge (proposed as the preferred alternative and proposed undertaking) would provide this safe access to Fort Pulaski. A Memorandum of Agreement has been drafted to document the proposed measures to mitigate the adverse effects associated with this undertaking, and is enclosed for your review.

Please provide us with your comments on the draft Memorandum of Agreement within 30 days of the receipt of this letter. If you have any questions, or require any additional information, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument

Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region

Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region

Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region

AUG 29 2012 In Reply Refer to: HFPP-15

Federal Express

Ms. Sandra Tucker
Field Supervisor
U.S. Fish and Wildlife Service
105 West Park Drive, Suite D
Athens, GA 30606

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project
Fort Pulaski National Monument
Request for Concurrence

Dear Ms. Tucker:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is preparing an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Chatham County, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The preferred alternative in the Environmental Assessment, Rehabilitation of the Existing Bridge, would include installing fiber-reinforced polymer shells (FRP) on the deteriorated timber piles. The shell would be filled with epoxy grout to encapsulate the timber and protect it from further deterioration. The wrapping would extend approximately to, but not below, the mud line and above the high water level. Sections of severely deteriorated timber pile would be replaced, if needed. Additional substructure repairs would include replacing timber cross bracing and bent caps, installing timber corbels, and repairing concrete bent caps. Superstructure repairs would also be completed, and would likely consist of cleaning and painting all of the structural steel in the main span, cleaning exposed rebar in the bridge deck and diaphragms in the main span and coating them with protective sealant, and replacing timber deck shims. Riprap would also be placed around the bridge abutments. Dewatering would be necessary in order to install the riprap and may also be necessary to replace sections of deteriorated timber piles. It is anticipated that access for the repairs would be from a barge located along side the pile bents. The barge would likely be moored through the use of pilings. No explosives will be used to complete the repairs.

By letter dated February 2, 2011, you indicated that the West Indian manatee (*Trichechus manatus*), a Federally-listed species, is known to occur in the Savannah River and the South Channel. The preferred alternative would have negligible impacts to the river channel, because the repairs would be made to the existing structural components. Riprap would be placed only at the bridge abutments. Also, the 2007 Standard Manatee Conditions for Boating Facilities will be implemented with the project to minimize the potential for adverse effects to the manatee.

Therefore, the FHWA has determined that the proposed action, Rehabilitation of the Existing Bridge, may affect, but is not likely to adversely affect the West Indian manatee. Also, in accordance with your letter, lights would not be placed on the bridge. This alternative would have no impact to the salt marsh located adjacent to the bridge approaches.

The FHWA respectfully requests your concurrence with our determination. If you determine that any Federally-listed species may be present or affected by the proposed project, please provide any restrictions or mitigation requirements that should be included in the project plans and specifications in order to ensure that this project does not adversely affect any Federally-listed threatened or endangered species.

Please provide us with your concurrence and/or comments within thirty (30) days of the receipt of this letter. A topographic map indicating the project area, photos of the project area, and an aerial photo of the project location, are enclosed for your review and information. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA



United States Department of the Interior

Fish and Wildlife Service

105 West Park Drive, Suite D

Athens, Georgia 30606

Phone: (706) 613-9493

Fax: (706) 613-6059

West Georgia Sub-Office

Post Office Box 52560

Fort Benning, Georgia 31995-2560

Phone: (706) 544-6428

Fax: (706) 544-6419

Coastal Sub-Office

4980 Wildlife Drive

Townsend, Georgia 31331

Phone: (912) 832-8739

Fax: (912) 832-8744

October 25, 2012

Mr. Kevin S. Rose
Environmental Compliance Specialist
Federal Highway Administration
21400 Ridgetop Circle
Sterling, Virginia 20166-6511
Attention: Lisa Landers

Re: USFWS File Number 2012-1043

Dear Mr. Rose:

Thank you for your correspondence received September 20, 2012, initiating informal section 7 consultation for National Park Service project PRA-FOPU 10(3) in Chatham County, Georgia. The proposed project would repair the structurally deficient bridge over the South Channel of the Savannah River connecting U. S. Route 80 to Fort Pulaski. These comments are provided in accordance with provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (ESA) to further the conservation of fish and wildlife resources and their habitat, including federally listed threatened and endangered species.

The field survey of the project corridor identified the presence or potential presence of species listed under the ESA. Habitat for the West Indian manatee (*Trichechus manatus*) was identified in and around the proposed project work area. The proposed project would repair deteriorated timber piles by encapsulating the pile in a fiber-reinforced polymer shell and injecting epoxy grout. Some timber piles, cross bracing, and bent caps may also be replaced. Structural steel components of the superstructure would be cleaned and sealed with a protective coating. Riprap would be added to the abutments. The bridge repairs would be conducted from a barge moored through the use of pilings. The 2007 Standard Manatee Conditions for Boating Facilities will be implemented as part of the project action for the protection of West Indian manatees.

Based on the information provided, we concur with your determination of "not likely to adversely affect" for West Indian manatee. The requirements of section 7 of the ESA have been satisfied and no further consultation is required. However, obligations under section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner which was not considered in this assessment; or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

We appreciate the opportunity to comment on your project. If you have any additional questions, please write or call our Coastal Georgia Sub Office staff biologist, Christopher Coppola, at 912-832-8739 extension 6.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sandra S. Tucker".

Sandra S. Tucker
Field Supervisor *for*

cc: ISEWS Athens Georgia

AUG 29 2012

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Mr. Pace Wilber
National Marine Fisheries Service
Atlantic Branch
Charleston Branch Office (F/SER47)
217 Fort Johnson RD.
Charleston, SC 29412-9110

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project
Request for Concurrence per Section 305(b)(2) of the Magnuson-Stevens Act

Dear Mr. Wilber:

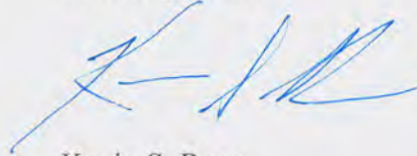
The Eastern Federal Lands Highway Division, of the Federal Highway Administration (FHWA), in cooperation with the National Park Service, is preparing an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Chatham County, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The preferred alternative in the Environmental Assessment, Rehabilitation of the Existing Bridge, would include installing fiber-reinforced polymer shells (FRP) on the deteriorated timber piles. The shell would be filled with epoxy grout to encapsulate the timber and protect it from further deterioration. The wrapping would extend approximately to but not below the mud line and above the high water level. Sections of severely deteriorated timber pile would be replaced, if needed. Additional substructure repairs would include replacing timber cross bracing and bent caps, installing timber corbels, and repairing concrete bent caps. Superstructure repairs would also be completed, and would likely consist of cleaning and painting all of the structural steel in the main span, cleaning exposed rebar in the bridge deck and diaphragms in the main span and coating them with protective sealant, and replacing timber deck shims. Riprap would also be placed around the bridge abutments. Dewatering would be necessary in order to install the riprap and may also be necessary to replace sections of deteriorated timber piles. It is anticipated that the access for the repairs would be from a barge located along side the pile bents. The barge would likely be moored through the use of pilings. No explosives will be used to complete the repairs.

The bridge repair action area has been designated as Essential Fish Habitat (EFH) by the South Atlantic Fishery Management Council. The action could potentially harm the EFH by release of debris and chemicals into the water during the repair of the bridge. A FRP shell will be used to encapsulate the piles. The FRP shell will be fully sealed and the injected grout will be contained to prevent it from entering the surrounding waters. Localized turbidity curtains and debris shields will be used to capture any debris released due to construction. The turbidity curtains will also be used in the few locations of shallow water where the river floor maybe disturbed by

the pile encapsulation in order to not increase the turbidity of the river. Based on the type of construction proposed and the mitigative measures to be employed, the FHWA has determined that the action will not result in any adverse effects to the EFH.

FHWA requests your concurrence on the determination of affect for the proposed action in consultation required by Section 305(b)(2) of the Magnuson-Stevens Act. Enclosed you will find a topographic map and photos of the project site. If you have any questions, please contact Ms. Lisa Landers, Environmental Protection Specialist at 571-434-1592 or Lisa.Landers@dot.gov.

Sincerely yours,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA
Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region, Atlanta, GA
Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA

From: [Pace Wilber](#)
To: [Landers, Lisa \(FHWA\)](#)
Cc: [Mark Padgett](#)
Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project; Request for Concurrence per Section 305(b)(2) of the Magnuson-Stevens Act
Date: Thursday, November 01, 2012 12:58:15 PM

Hi Lisa.

NOAA's NMFS has reviewed the draft Environmental Assessment provided by the National Park Service for refurbishing the Fort Pulaski Bridge in Chatham County.

The bridge provides access to Fort Pulaski National Monument from US 80 and crosses the South Channel of the Savannah River. The Environmental Assessment describes seven alternatives in depth, including the "no action" alternative.

Alternative D is identified as the preferred alternative, and it consists of using FRP jackets on the most deteriorated timber piles. The jackets would be filled with epoxy grout to encapsulate the timber and protect it from further deterioration. The wrapping would extend from the mud line (but not below) to above the high water level. Sections of severely deteriorated timber piles would be replaced. It is estimated that 20 piles would have new FRP jackets installed, 30 piles would have their existing FRP jackets replaced, and that five piles would have sections replaced and FRP jackets installed. Additional substructure repairs would include replacing timber cross bracing and bent caps, installing timber corbels, and repairing concrete bent caps. Superstructure repairs would also be completed, and would likely consist of cleaning and painting all of the structural steel in the main span, cleaning exposed rebar in the bridge deck and diaphragms in the main span and coating them with protective sealant, and replacing timber deck shims. Riprap would be replaced around the bridge abutments. It is estimated that 18,500 cubic feet of riprap would be placed at the northern abutment and 29,000 cubic feet would be placed at the southern abutment.

The Environmental Assessment does not include an essential fish habitat (EFH) assessment; however, the Federal Highway Administration has provided EFH information in a separate letter that includes a determination that no adverse impacts to EFH are expected from refurbishing the Fort Pulaski Bridge. Based on our review of the information provided and knowledge of the area, NMFS agrees with this determination and offers no EFH conservation recommendations pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. If the permitting process administered by the U.S. Army Corps of Engineers leads to an additional EFH consultation, NMFS expects to provide the Corps with a similar conclusion unless project changes or new information arise.

Please note this determination does not cover the Endangered Species Act. Should the National Park Service or Federal Highway Administration conclude the project may effect endangered or threatened species under NMFS' jurisdiction, such as Atlanti or shortnose sturgeon, our Protected Resources Division in St. Petersburg, Florida, should be contacted.

If you have any questions, please let us know.

Thanks,
Pace

--

Pace Wilber, Ph.D.
HCD Atlantic Branch Supervisor
NOAA Fisheries Service
219 Ft Johnson Road
Charleston, SC 29412

Voice: [843-762-8601](tel:843-762-8601)
FAX: [843-953-7205](tel:843-953-7205)
Pace.Wilber@noaa.gov

MAR 26 2014

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Mr. Pace Wilber
National Marine Fisheries Service
Atlantic Branch
Charleston Branch Office (F/SER47)
217 Fort Johnson Rd.
Charleston, SC 29412-9110

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project
Request for Concurrence per Section 305(b)(2) of the Magnuson-Stevens Act

Dear Mr. Wilber:

The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge, located in Chatham County Georgia in January 2013. In the EA, the replacement of the existing bridge with a new, two-lane bridge on the existing alignment was analyzed in detail; however, this alternative was not identified as the preferred alternative. The replacement of the existing bridge with a new, two-lane bridge on a new alignment adjacent to the existing bridge was dismissed from further analysis in the EA due to unreasonable cost. After further review of the cost estimates of the proposed alternatives, and investigation of the use of alternative bridge types, the FHWA and NPS would now like to consider the replacement of the existing bridge with a new, two-lane bridge as the preferred alternative. The new bridge would require the placement of piles and piers in the water and the placement of riprap at the bridge abutments. A work barge and dewatering may be necessary in order to construct the bridge. The existing bridge would be removed after the new bridge is completed. The existing timber piles would be removed, and the abutment area would be restored.

The bridge replacement area has been designated as Essential Fish Habitat (EFH) by the South Atlantic Fishery Management Council. The action would adversely affect EFH. The placement of piles for the new bridge would temporarily reduce the quantity of EFH until the existing timber piles are removed. After completion of the project, the overall number of piles in the river would be reduced. The construction of the new bridge and demolition of the new bridge would temporarily reduce the quality of EFH because of the increase in turbidity. Turbidity curtains would be used where the river floor may be disturbed by construction activities to reduce to increase in turbidity.

The FHWA has determined that the action will result in temporary adverse effects to EFH, but that the effect on EFH would not be substantial. FHWA requests your concurrence on the determination of affect for the proposed action in consultation required by Section 305(b)(2) of the Magnuson-Stevens Act. Enclosed you will find a topographic map and photos of the project site. If you have any questions, please contact Ms. Lisa Landers, Environmental Protection Specialist, at 571-434-1592 or Lisa.Landers@dot.gov.

Sincerely yours,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument

Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region

Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region

Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region

**UNITED STATES DEPARTMENT OF COMMERCE**

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

December 11, 2014

F/SER47:JD/pw

(Sent via Electronic Mail)

Mr. Kevin Rose
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, VA 20166

Attention: Lisa Landers

Dear Mr. Rose:

NOAA's National Marine Fisheries Service (NMFS) reviewed the Essential Fish Habitat (EFH) Assessment, dated September 30, 2014, prepared by the Federal Highway Administration (FHWA) for the Fort Pulaski bridge replacement project, Chatham County. FHWA and the National Park Service (NPS) propose to replace the deteriorating Fort Pulaski bridge leading to Cockspur Island on a new, upstream alignment over the South Channel of the Savannah River. As compensatory mitigation, FHWA and NPS would restore and enhance salt marsh at the bridge and at one or two locations on Cockspur Island or adjacent NPS land. FHWA has determined the bridge replacement would have temporary adverse effects on EFH; however, the effects would not be substantial and the minimization and mitigation measures would appropriately mitigate for the adverse effects. As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Proposed Project Description

The proposed new bridge would be upstream of the existing bridge, approximately 1,300 feet long, consist of two 11-foot-wide travel lanes, and have a five-foot shoulder. To support bridge decking, sixty square concrete piles (18 inches on a side) would be driven into the river bottom using an impact hammer. The existing abutments would be used to the maximum extent practicable; however, new fill would be needed to accommodate the new alignment. To construct the new bridge abutments, FHWA would install sheet-pile cofferdams (130 feet and 100 feet at south and north area, respectively) using a vibratory hammer, dewater the area, and then place fill within the cofferdams. Sheet piling would then be removed and riprap would be placed at each bridge abutment to protect the abutments from scour. Once the new bridge is completed, the existing bridge would be mechanically demolished and the existing 310 timber piles would be removed from the channel. Remaining abutments associated with the existing bridge would be graded to adjacent marsh elevations and monitored for marsh recruitment. No in-water work would occur from April 15 to May 31 and from September 1 to November 30 to avoid impacts to sturgeon. The proposed work is anticipated to take one year to complete.

Essential Fish Habitat in the Project Area

With two exceptions, the EFH Assessment accurately describes EFH in the project area and use by federally managed fishery species. The EFH Assessment includes red drum. On November 5, 2008, management of Atlantic coast red drum was transferred from the Magnuson-Stevens Act to the Atlantic Coastal Act. With this transfer, Atlantic red drum lost its federal EFH designations and should not be



listed as having federally-designated EFH in the EFH Assessment. Spiny lobster and slipper lobster are not found in the action area and should be deleted from the assessment. While the EFH descriptions in the EFH Assessment do not require augmentation to complete this EFH consultation, NMFS believes future EFH assessments would be improved by explicitly tying the EFH and HAPC designations to their respective federal fishery management plans (e.g., penaeid shrimp, coastal migratory pelagic species) and using these plans as the organizing framework for the impact evaluation. This approach ensures consistent terminology when describing specific habitats, draws attention to the functions of habitats in supporting federally managed fishery species, and provides a filter for EFH and HAPC evaluations based on the presence/absence of the federally managed species in the project area.

Impacts to Essential Fish Habitat

The bridge replacement project would permanently impact approximately 0.40 acres of salt marsh; approximately 7,800 square feet on the southern side and approximately 9,200 square feet on the northern side. During construction, increased turbidity and sedimentation can degrade water quality while noise could impact fish behavior. No oysters are present within the construction footprint; however, oyster aggregations are present approximately 100 to 200 meters upstream. No direct impacts would occur to these aggregations and indirect impacts from water quality degradation are likely to be insignificant due to turbidity control measures.

Avoidance, Minimization, and Mitigation

FHWA proposes several means to minimize impacts to aquatic resources. Based on a site visit with NMFS on July 21, 2014, FHWA has realigned the proposed bridge to take advantage of fill already present. This alignment shift decreased impacts to salt marsh by 0.12 acres. Silt fencing and other best management practices would be used to reduce erosion and sediment leaving the site and impacting the adjacent tidal marsh and oyster aggregations. Sound attenuation methods, such as pile caps, using the minimum hammer energy needed to drive piles, and ramping-up hammers, would decrease impacts to fish by reducing received sound levels and allowing fish to leave the area before highest noise levels are reached. Lastly, FHWA has also proposed construction windows to reduce the likelihood of encounters with sturgeon.

Using the Savannah District's Standard Operating Procedure (SOP) for wetland mitigation, FHWA determines 3.64 credits are needed to offset the loss of function of 0.40 acres of salt marsh impacted by the proposed project. In the calculations, FHWA assigned a rarity ranking of "common" to the impacted marsh. The Savannah District typically affords salt marsh an "uncommon" or "rare" factor value in SOP mitigation calculations. With a change to "uncommon," FHWA would need 3.8 credits. The proposed grading and restoration of approach sections of the existing bridge would provide 2.1 credits. NMFS recommends the final grading plan be examined carefully prior to work to ensure the target elevations are locally conducive for salt marsh vegetation. The remaining credits would be generated by installing living shoreline projects, in coordination with the Georgia Department of Natural Resources (GADNR), at one or two erosional areas on the island or by removing fill on nearby NPS land. On October 30, 2014, NMFS participated in a conference call with FHWA, NPS, and GADNR to discuss potential mitigation sites. NMFS noted any living shoreline project would have to result in salt marsh recruitment to generate credit and high wave energy at many of the Cockspur Island sites may impede success. NMFS also helped identify additional sites on NPS land that could be restored to marsh by removing old spoil fill. FHWA has yet to present a final mitigation proposal to NMFS for review.

Conservation Recommendation

NMFS finds the proposed filling of salt marsh will adversely affect EFH. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely affect EFH. Based on this requirement, NMFS provides the following:

EFH Conservation Recommendation

- FHWA shall provide a complete compensatory mitigation and monitoring plan to NMFS for approval. The plan shall include the location of sites proposed for mitigation work, description of construction activities, monitoring methods, performance standards, credit calculations, and an adaptive management process. NMFS is available to review draft plans.

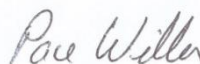
In accordance with Section 305(b)(4)(B) of the Magnuson-Stevens Act and its implementing regulations at 50 CFR 600.920(k), the FHWA must provide a detailed response in writing to NMFS within 30 days after receiving this letter. If it is not possible to provide a substantive response within 30 days, the FHWA should provide an interim response to NMFS, to be followed by the detailed response. The response must include a description of measures proposed by the FHWA for avoiding, mitigating, or offsetting the impact of the activity on EFH. If the response is inconsistent with the EFH conservation recommendation, the FHWA must explain reasons for not following the recommendation, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action and the measures needed to avoid, minimize, mitigate, or offset such effect. The FHWA must submit the response to NMFS at least 10 days prior to final approval of the action.

In accordance with section 7 of the Endangered Species Act of 1973, as amended, it is the responsibility of the FHWA to review and identify any proposed activity that may affect endangered or threatened species and their designated critical habitat. Determinations involving species under NMFS jurisdiction should be reported to NMFS' Protected Resources Division at the letterhead address.

The Marine Mammal Protection Act of 1972, as amended, prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters. If the proposed action may incidentally take, by harassment, a marine mammal, FHWA should contact the NMFS Office of Protected Resources, Permits Division, at NOAA Headquarters, Silver Spring, Maryland.

We appreciate the opportunity to provide these comments. Please direct related correspondence to the attention of Ms. Jaclyn Daly-Fuchs at our Charleston Area Office. She may be reached at (843) 762-8610 or by e-mail at Jaclyn.Daly@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:

FHWA, Lisa.Landers@dot.gov
COE, Sherelle.D.Reinhardt@usace.army.mil
GADNR CRD, Kelie.Moore@dnr.state.ga.us, Jan.Mackinnon@dnr.state.ga.us
SAFMC, Roger.Pugliese@safmc.net
EPA, Somerville.Eric@epa.gov
FWS, Karen_Mcgee@fws.gov
F/SER4, David.Dale@noaa.gov
F/SER47, Jaclyn.Daly@noaa.gov



Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

DEC 20 2010

In Reply Refer to: HFPP-15

Mr. Eric Hawk
Section 7 Coordinator
Southeast Regional Office
National Marine Fisheries Service
263 13th Avenue South
St. Petersburg, FL 33701

Subject: PRA-FOPU 10(3)
Fort Pulaski Bridge
Fort Pulaski National Monument

Dear Mr. Hawk:

The National Park Service, in cooperation with the Federal Highway Administration (FHWA), is initiating an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Savannah, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The bridge was built in 1938, and has been rehabilitated several times. The timber piles have deteriorated, and the bridge does not meet current safety standards. The Environmental Assessment will analyze a range of bridge repair and replacement alternatives. Repairs to the bridge or replacement of the bridge have the potential to impact federally-listed marine and anadromous species per the Endangered Species Act of 1973 and Essential Fish Habitat per the Magnuson-Stevens Act.

Please review the proposed project and provide us with comments and information in regard to potential impacts to any federally-listed species, critical habitat, and Essential Fish Habitat. If possible, please identify specific areas where concerns are present, and include any required or suggested measures to avoid or minimize impacts. A quad map indicating the study area is enclosed. If you have any questions concerning this matter, please contact Ms. Lisa Landers, Environmental Protection Specialist, at Lisa.Landers@dot.gov, or (571) 434-1592.

Sincerely,

Kevin S. Rose
Environmental Compliance Specialist

Enclosures



cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast
Region, Atlanta, GA

Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA



U.S. Department
of Transportation
**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

AUG 29 2012

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Mr. David Bernhart
National Marine Fisheries Service
Protected Resources Division
263 13th Ave. South,
St. Petersburg, FL 33701

Subject: PRA-FOPU 10(3), Fort Pulaski Bridge Project
Section 7 of Endangered Species Act of 1973 - Request for Concurrence

Dear Mr. Bernhart:

The Eastern Federal Lands Highway Division, of the Federal Highway Administration (FHWA), in cooperation with the National Park Service, is preparing an Environmental Assessment for the repair and/or replacement of the Fort Pulaski Bridge located in Chatham County, Georgia. The Fort Pulaski Bridge provides access to Fort Pulaski from U.S. Route 80 and crosses the South Channel of the Savannah River. The FHWA previously consulted with your office for a similar project to make repairs to the Fort Pulaski Bridge in late 2007. The project was completed in 2008; however, further deterioration has made additional repairs to the bridge necessary.

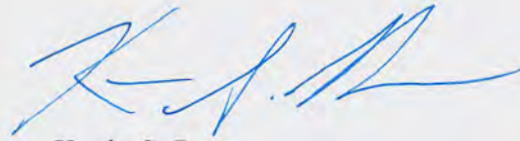
The preferred alternative in the Environmental Assessment, Rehabilitation of the Existing Bridge, would include installing fiber-reinforced polymer shells (FRP) on the deteriorated timber piles. The shell would be filled with epoxy grout to encapsulate the timber and protect it from further deterioration. The wrapping would extend approximately to but not below the mud line and above the high water level. Sections of severely deteriorated timber pile would be replaced, if needed. Additional substructure repairs would include replacing timber cross bracing and bent caps, installing timber corbels, and repairing concrete bent caps. Superstructure repairs would also be completed, and would likely consist of cleaning and painting all of the structural steel in the main span, cleaning exposed rebar in the bridge deck and diaphragms in the main span and coating them with protective sealant, and replacing timber deck shims. Riprap would also be placed around the bridge abutments. Dewatering would be necessary in order to install the riprap and may also be necessary to replace sections of deteriorated timber piles. It is anticipated that access for the repairs would be from a barge located along side the pile bents. The barge would likely be moored through the use of pilings. No explosives will be used to complete the repairs.

The range of Federally-listed Shortnose Sturgeon (*Acipenser brevirostrum*) includes the South Channel of the Savannah River. Construction activities that result in increased turbidity are known to adversely affect pre-spawning adult sturgeon, and may disrupt spawning during late winter and spring. To mitigate the potential affect, FHWA will implement measures to avoid adverse impacts to the species. Localized turbidity curtains and debris shields will be used to

capture any debris released due to construction. The turbidity curtains will also be used in the few shallow locations where the river floor may be disturbed by the pile encapsulation in order to not increase the turbidity of the river. Due to the potential disruption of the Shortnose Sturgeon spawning season, work below the water surface will not be allowed December 1 through February 28. The bridge repair has a nominal possibility of affecting the Shortnose Sturgeon, and the potential affects have been reduced by the mitigation measures. FHWA has made the determination that the proposed action including mitigation measures may affect, but is not likely to adversely affect the Shortnose Sturgeon.

FHWA requests your concurrence on the determination of effect for the proposed action in consultation required by Section 7 of the Endangered Species Act of 1973. Enclosed you will find a topographic map and photos of the project site. If you have any questions, please contact Ms. Lisa Landers, Environmental Protection Specialist at 571-434-1592 or Lisa.Landers@dot.gov.

Sincerely yours,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Randy Wester, Superintendent, National Park Service, FOPU, Savannah, GA
Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region, Atlanta, GA
Mr. Kent Cochran, Southeast Region FLHP Coordinator, National Park Service, Atlanta, GA



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
(727) 824-5312; FAX (727) 824-5309
<http://sero.nmfs.noaa.gov>

F/SER31:KPB

Kevin S. Rose
Environmental Compliance Specialist
Federal Highway Administration
21400 Ridgetop Circle
Sterling, VA 20166-6511

NOV 27 2012

Re: Repair of the Fort Pulaski Bridge to Cockspur Island, Chatham County, Georgia (PRA-FOPU 10(3))

Dear Mr. Rose:

This responds to your August 29, 2012, request for Section 7 consultation under the Endangered Species Act (ESA). We requested additional information on September 14 and September 28, 2012. In your responses on September 25 and October 4, 2012, you included sea turtles and Atlantic sturgeon in your effects determination, included the additional information requested, and provided the environmental assessment for the project. You determined the referenced project may affect but is not likely to adversely affect shortnose sturgeon, Atlantic sturgeon, and sea turtles. You requested concurrence from the National Marine Fisheries Service (NMFS) with these determinations. We provided a preliminary noise assessment on October 5, 2012, and suggested noise reduction technologies to reduce the noise footprint from the project. On October 10, 2012, you indicated that the project would use a vibratory hammer in lieu of impact hammering for the project. Our findings on the project's potential effects are based on the project description in this response. Changes to the proposed action may negate our findings and require reinitiating consultation.

The Federal Highway Administration (FHWA) proposes to conduct repairs to the existing Fort Pulaski Bridge located at 32.020731°N, 80.899011°W (North American Datum 1983). The bridge was originally constructed in 1938 and reconstructed in 1965. It crosses the South Channel of the Savannah River and connects U.S. Highway 80 with Cockspur Island. There are a total of 320 existing timber piles supporting the roadway, many of which are showing signs of deterioration and are proposed for repair. The FHWA proposes to install fiber-reinforced polymer shells around five of the deteriorated timber piles. The shells will be placed around the piles from above the surface to the mud line, and each shell will be filled with epoxy grout to encapsulate the timber and prevent further deterioration. Sections of cross members will be repaired above the water, and no pile driving of new timber piles is proposed as part of the repair work. Bridge repairs will be conducted from a barge anchored by two spuds.



Below-water repair work includes repairing severely damaged timber piles using divers and placement of 15,900 ft² of riprap at the bridge abutments. Before placement of riprap can occur, a cofferdam will be installed around each abutment with interlocking sheet piles and the area dewatered. The south abutment will require 180 piles, and the north abutment approximately 170 piles. Each 20-ft by 1.5-ft pile will require approximately 10 to 20 minutes to install to a depth of 12 feet with a vibratory hammer. Approximately 12 piles will be driven each day. Work will not be conducted at night.

FHWA Proposed Harm Avoidance Measures

The FHWA proposed several measures to reduce the probability of interactions with listed species.

- A vibratory hammer will be used in lieu of an impact hammer to reduce the noise footprint in the river.
- Localized turbidity curtains and debris shields will be used to capture any debris released due to construction. The turbidity curtains will also be used in the few shallow locations where the river floor may be disturbed by the pile encapsulation, in order to not increase the turbidity of the river.
- Due to the potential for disruption of the Atlantic sturgeon spawning migration in the lower Savannah River during February and March, work below the water surface will not be allowed between February 1 and March 31.

Listed fish species that occur in the action area include Atlantic sturgeon (*Acipenser oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*). Listed species of sea turtles in the project area include the green (*Chelonia mydas*), Kemp's ridley (*Lepidochelys kempii*), and loggerhead (*Caretta caretta*).

Shortnose sturgeon typically remain within their natal rivers.¹ Research has indicated that juvenile shortnose sturgeon can be found during the year within the Lower Savannah River from river mile 19.3 to 29.5, and adult sturgeon from river mile 3.4 to 29.5.² Although shortnose typically do not occur beyond the freshwater/saltwater mixing area, a few adult sturgeon have been detected in the main North Channel of the Savannah River as low as river mile 3.4 (Figure 1), but not in the lesser South Channel. A habitat suitability analysis that was conducted for the Savannah Harbor Expansion Project also indicates suitable shortnose sturgeon habitat does not occur downstream of Elba Island (see yellow square in Figure 1). Based on the location of the project close to the Atlantic Ocean and no reports in the first several river miles of the lower Savannah River, shortnose sturgeon occurrences would be very rare in the action area and any potential project effects are discountable.

¹ Kynard, B. 1997. Life history, latitudinal patterns and status of shortnose sturgeon, *Acipenser brevirostrum*. Environmental Biology of Fishes 48: 319-334.

² Collins, M. R., W.C. Post, and D.C. Russ. 2001. Distribution of shortnose sturgeon in the lower Savannah River. Final Report to the Georgia Ports Authority. 21 p.



Figure 1. A map showing the location of the project area (red star) and the lowermost river detections of shortnose sturgeon in the Savannah River (blue triangles).

Pile Driving Noise Effects on Atlantic Sturgeon and Sea Turtles

Construction noise may disrupt the migration of Atlantic sturgeon from the ocean to upriver spawning sites during February and March. To mitigate the potential effect, FHWA will implement measures to avoid adverse impacts to the species. Work below the water surface will not be allowed between February 1 through March 31. With this seasonal work restriction, the likelihood that construction activities will adversely affect the Atlantic sturgeon migration is discountable.

Sea turtles and Atlantic sturgeon may forage in the project area. Pile driving noise was further considered for its potential to expose animals to harmful noise levels and disrupt foraging (Table 1). FHWA has agreed to use a vibratory hammer to reduce the potential for behavioral and physical injury that could result from impact pile driving methods. Using a vibratory hammer avoids any risk of injury to sea turtles or Atlantic sturgeon and reduces the potential for behavioral disturbance to the area immediately around the bridge abutments (Figure 2).

Table 1. Noise exposure thresholds and impact zones for vibratory pile driving used for sturgeon and sea turtles in the effects analysis.

Effect	Organism	Threshold Level	Source Level	Distance from Pile (m)
Injury	Fish $\geq$ 102 grams and sea turtles	234 dB (SEL _{CUM})	231 dB (1 Pile SEL _{CUM})	NA
			221 dB (12 Pile SEL _{CUM})	NA
Behavior	Fish	150 (RMS)	175 dB (RMS)	47
	Sea turtles	160 dB (RMS)	175 dB (RMS)	10

Thresholds are based on the recommended criteria for vibratory pile driving found in Hastings (2012).³ Cumulative source levels were back calculated using 20 minutes to drive each pile and 15 logR intermediate spreading loss based on reference levels for 24-inch AZ sheet pile noise using a vibratory hammer reported in Illinworth and Rodkin (2007).⁴



Figure 2. The 47-m behavioral impact zone for Atlantic sturgeon from the vibratory piling of sheet piles to create coffer dams around the two bridge abutments.

³ Hastings, M.C. 2010. Recommendations for Interim Criteria for Vibratory Pile Driving. Submitted to ICF Jones & Stokes, Sacramento, CA, for task order on vibratory pile driving. Caltrans Contract 43A0228. June 30.

⁴ Illinworth and Rodkin. 2007. Compendium of Pile Driving Sound Data. Report Prepared for the California Department of Transportation. September 27, 2007.

The potential for sea turtles to be disturbed by the vibratory pile driving is limited to a small area within 10 m of the bridge abutments and does not extend across the river. Any behavioral effects that may occur are considered insignificant due to the small area impacted and ample suitable habitat available in the area.

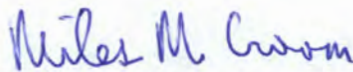
Atlantic sturgeon may be behaviorally affected within 47 m from the pile driving activities and may avoid the area. The width of the river at the bridge from abutment to abutment is approximately 392 m. Any avoidance of the small area around the abutments due to noise is not expected to significantly affect the foraging success or movement of Atlantic sturgeon in the river since the majority of the river will be unaffected by noise.

The general construction effects of turbidity and construction debris falling into the water will be reduced to minimal levels due to the proposed use of turbidity curtains and debris shields to capture any debris released during bridge repairs. Turbidity curtains will also be used in the few shallow locations where the river floor may be disturbed by the pile encapsulation. The placement of riprap around the abutments will be conducted from a stationary barge to the dewatered area behind the cofferdams. Turbidity curtains, debris shields, and cofferdams are expected to reduce the potential for physical impacts, noise, and turbidity from general construction activities to discountable levels.

We believe the project may affect, but is not likely to adversely affect shortnose sturgeon, Atlantic sturgeon, and sea turtles. This concludes your consultation responsibilities under the ESA for species under NMFS' purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action.

We have enclosed other relevant information for your review. If you have any questions, please contact Kyle Baker, consultation biologist, at (727) 551-5789 or by e-mail at Kyle.Baker@noaa.gov. Thank you for your continued cooperation in the conservation of listed species.

Sincerely,



for

Roy E. Crabtree, Ph.D.
Regional Administrator

Enclosure

File: 1514-22.L.3

Ref: I/SER/2012/03774

**PCTS Access and Additional Considerations for ESA Section 7 Consultations
(Revised 7-15-2009)**

Public Consultation Tracking System (PCTS) Guidance: PCTS is an online query system at <https://pcts.nmfs.noaa.gov/> that allows federal agencies and U.S. Army Corps of Engineers' (COE) permit applicants and their consultants to ascertain the status of NMFS' Endangered Species Act (ESA) and Essential Fish Habitat (EFH) consultations, conducted pursuant to ESA section 7, and Magnuson-Stevens Fishery Conservation and Management Act's (MSA) sections 305(b)(2) and 305(b)(4), respectively. Federal agencies are required to enter an agency-specific username and password to query the Federal Agency Site. The COE "Permit Site" (no password needed) allows COE permit applicants and consultants to check on the current status of Clean Water Act section 404 permit actions for which NMFS has conducted, or is in the process of conducting, an ESA or EFH consultation with the COE.

For COE-permitted projects, click on "Enter Corps Permit Site." From the "Choose Agency Subdivision (Required)" list, pick the appropriate COE district. At "Enter Agency Permit Number" type in the COE district identifier, hyphen, year, hyphen, number. The COE is in the processing of converting its permit application database to PCTS-compatible "ORM." An example permit number is: SAJ-2005-000001234-IPS-1. For the Jacksonville District, which has already converted to ORM, permit application numbers should be entered as SAJ (hyphen), followed by 4-digit year (hyphen), followed by permit application numeric identifier with no preceding zeros. For example: SAJ-2005-123; SAJ-2005-1234; SAJ-2005-12345.

For inquiries regarding applications processed by COE districts that have not yet made the conversion to ORM (e.g., Mobile District), enter the 9-digit numeric identifier, or convert the existing COE-assigned application number to 9 numeric digits by deleting all letters, hyphens, and commas; converting the year to 4-digit format (e.g., -04 to 2004); and adding additional zeros in front of the numeric identifier to make a total of 9 numeric digits. For example: AL05-982-F converts to 200500982; MS05-04401-A converts to 200504401. PCTS questions should be directed to Eric Hawk at Eric.Hawk@noaa.gov. Requests for username and password should be directed to PCTS.Usersupport@noaa.gov.

EFH Recommendations: In addition to its protected species/critical habitat consultation requirements with NMFS' Protected Resources Division pursuant to section 7 of the ESA, prior to proceeding with the proposed action the action agency must also consult with NMFS' Habitat Conservation Division (HCD) pursuant to the MSA requirements for EFH consultation (16 U.S.C. 1855 (b)(2) and 50 CFR 600.905-.930, subpart K). The action agency should also ensure that the applicant understands the ESA and EFH processes; that ESA and EFH consultations are separate, distinct, and guided by different statutes, goals, and time lines for responding to the action agency; and that the action agency will (and the applicant may) receive separate consultation correspondence on NMFS letterhead from HCD regarding their concerns and/or finalizing EFH consultation.

Marine Mammal Protection Act (MMPA) Recommendations: The ESA section 7 process does not authorize incidental takes of listed or non-listed marine mammals. If such takes may occur an incidental take authorization under MMPA section 101 (a)(5) is necessary. Please contact NMFS' Permits, Conservation, and Education Division at (301) 713-2322 for more information regarding MMPA permitting procedures.



U.S. Department
of Transportation
**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

SENT VIA ELECTRONIC CORRESPONDENCE

MAR 26 2014

In Reply Refer to: HFPP-15

Dr. Roy Crabtree, Regional Administrator
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Region
Protected Resources Division
263 13th Ave. South,
St. Petersburg, FL 33701

Subject: PRA-FOPU-10(3), Fort Pulaski Bridge Project
Endangered Species Act - Section 7 Consultation
Request for Concurrence

Dear Dr. Crabtree:

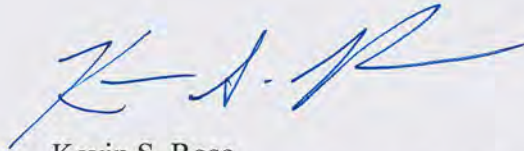
The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) for the repair and/or replacement of the Fort Pulaski Bridge, located in Chatham County Georgia in January 2013. In the EA, the replacement of the existing bridge with a new, two-lane bridge on the existing alignment was analyzed in detail; however, this alternative was not identified as the preferred alternative. The replacement of the existing bridge with a new, two-lane bridge on a new alignment adjacent to the existing bridge was dismissed from further analysis in the EA due to unreasonable cost. After further review of the cost estimates of the proposed alternatives, and investigation of the use of alternative bridge types, the FHWA and NPS would now like to consider the replacement of the existing bridge with a new, two-lane bridge as the preferred alternative. The new bridge would require the placement of piles and piers in the water, and the placement of riprap at the bridge abutments. A work barge and dewatering may be necessary in order to construct the bridge. The existing bridge would be removed after the new bridge is completed. The existing timber piles would be removed, and the abutment area would be restored. It is estimated that 60 precast 18-inch square concrete piles would be installed using an impact hammer. It is estimated that it would take approximately 1,100 impact hammer blows for a duration of approximately 25 minutes per pile, and that five piles would be driven each day. A sheet pile cofferdam would be installed using a vibratory hammer in order to dewater the area to construct the new bridge abutments.

Previous consultation with your office regarding the rehabilitation alternative was completed. Listed fish species under the jurisdiction of the NMFS include Atlantic sturgeon (*Acipenser oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*). Listed species of sea turtles in the project area include the green (*Chelonia mydas*), Kemp's ridley (*Lepidochelys kempii*), and loggerhead (*Caretta caretta*).

Previous consultation with your office indicated that, "Based on the location of the project close to the Atlantic Ocean and no reports in the first several river miles of the lower Savannah River, shortnose sturgeon occurrences would be very rare in the action area and any potential project effects are discountable." Sea turtles and Atlantic sturgeon may forage in the project area, and Atlantic sturgeon migrate from the ocean to upriver spawning sites during February and March. In order to avoid impacting Atlantic sturgeon spawning, work below the water surface would not be allowed between February 1 and March 31. Micarta cushion blocks would be utilized for impact hammer noise attenuation in order to reduce the potential for adverse impacts.

FHWA has made the determination that the proposed action including mitigation measures may affect, but is not likely to adversely affect the Atlantic sturgeon, green, Kemp's ridley, and loggerhead sea turtles. FHWA requests your concurrence on the determination of effect for the proposed action in consultation required by Section 7 of the Endangered Species Act of 1973. Enclosed you will find a topographic map, the Section 7 Checklist, and conceptual plan sheets. If you have any questions, please contact Ms. Lisa Landers, Environmental Protection Specialist at 571-434-1592 or Lisa.Landers@dot.gov.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument

Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument

Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region

Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region

Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

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OCT 10 2014

F/SER46:DR
SER-2014-13454

Mr. Kevin S. Rose
Environmental Compliance Specialist
Eastern Federal Lands Highway Division
Federal Highway Administration
U.S. Department of Transportation
21400 Ridgetop Circle
Sterling, Virginia 20166-6511

Ms. Melissa Memory
Superintendent
Fort Pulaski National Monument
P.O. Box 30757
Savannah, Georgia 31410-0757

Ref.: PRA-FOPU-10(3), Federal Highway Administration, Fort Pulaski Bridge Replacement,
Chatham County, Georgia

Dear Mr. Rose and Ms. Memory:

This letter responds to your letter dated March 26, 2014, requesting National Marine Fisheries Service (NMFS) concurrence with your project-effect determinations under Section 7 of the Endangered Species Act (ESA) for the above-referenced project. You determined that the project may affect, but is not likely to adversely affect, Atlantic sturgeon and green, Kemp's ridley, and loggerhead sea turtles. You also determined that there would be no effect to shortnose sturgeon. Based on a recent sturgeon telemetry study, (Ingram 2014)¹ NMFS has determined that the project may also affect shortnose sturgeon. We base our findings on the project's potential effects on the project descriptions in this response. Changes to the proposed action for the project may negate our findings and may require reinitiation of consultation.

The Federal Highway Administration (FHWA) sent a Section 7 consultation request letter and a completed NMFS Endangered Species Act Section 7 Checklist to NMFS on March 26, 2014. The project was assigned to Dr. Dave Rydene of NMFS Southeast Region on June 11, 2014. Dr. Rydene spoke to Lisa Landers of FHWA about the status of the project on July 14, 2014, and sent Ms. Landers an email that afternoon requesting additional information related to the bridge replacement that was needed to complete the Section 7 consultation. Ms. Landers provided the additional information on July 15, 2014.

¹ Ingram, E. 2014. Temporal and Spatial Patterns of Shortnose Sturgeon (*Acipenser brevirostrum*) and Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). M.S. thesis, University of Georgia, 85 pp.



The bridge replacement project is located at 32.022519°N, 80.89825°W North American Datum 1983 (NAD1983), crossing the South Channel of the Savannah River (near the mouth of the river and about 0.9 nautical miles from the Atlantic Ocean) in Chatham County, Georgia (Figures 1 and 2). The existing bridge provides the only vehicular access to Cockspur Island and Fort Pulaski. FHWA proposes the in-kind replacement of the existing 2-lane Fort Pulaski Bridge. The new bridge will be built adjacent to the existing bridge. The existing bridge is 1,283 feet (ft) in length with a width of approximately 24.8 ft. The new bridge will be approximately 1,292 ft in length with a width of 24 ft. The new bridge will be supported by 60 precast square concrete piles (18-inch [in] by 18-in). The South Channel of the Savannah River is a tidally-influenced river that empties to the Atlantic Ocean. No seagrasses or mangroves are present within the limits of proposed construction. The primary shoreline vegetation is *Spartina alterniflora*, smooth cordgrass.

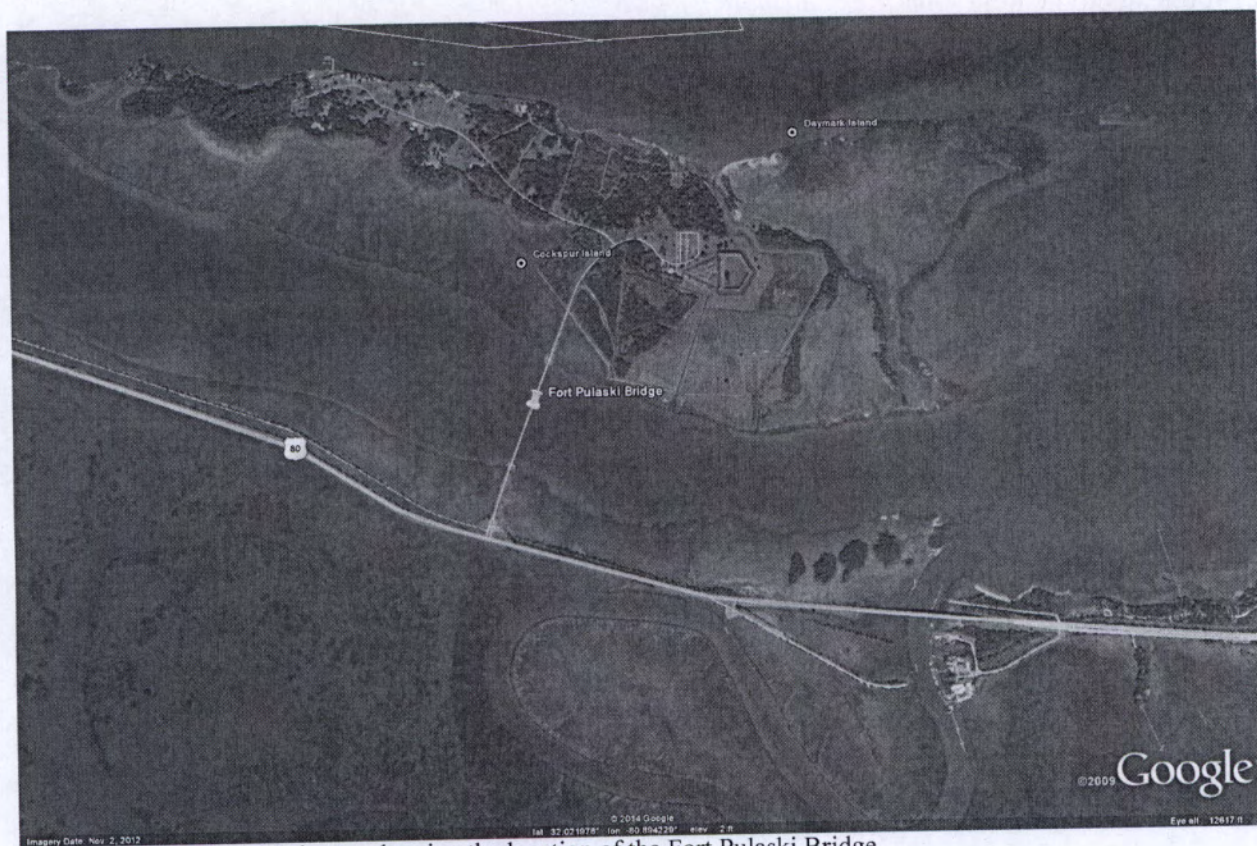


Figure 1. Google Earth© image showing the location of the Fort Pulaski Bridge



Figure 2. Image showing the project location overview (©2014 Google, TerraMetrics, Data SIO, NOAA, U.S. Navy, NGA, GEBCO)

Heavy equipment such as cranes, backhoes, and dump trucks will be used to accomplish construction activities. Barges will be used to move cranes along the bridge alignment, and smaller supply vessels will also be used. No blasting will be performed. Pile driving will only occur during daylight hours. The applicant will use turbidity controls and comply with NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions*, dated March 23, 2006. The project should take approximately 15 months to complete.

The 60 concrete piles will be installed from a barge using an impact hammer. It will take approximately 1,100 hammer blows (about 25 minutes of active pile driving) to install each pile. About 5 piles can be installed each day, translating to approximately 125 minutes of active pile driving per day. It should take about 12 days to install all 60 piles. Micarta (a brand name for composites of linen, canvas, paper, fiberglass, carbon fiber, or other fabric in a thermosetting plastic) cushion blocks will be used during pile-driving operations as a noise attenuation measure. Based on a recent sturgeon telemetry study (Ingram 2014, see footnote above), the seasonal restrictions on in-water construction work originally proposed by FHWA have been modified. Based on this new data, no in-water work will be done between April 15 and May 31, and/or between September 1 and November 30, to prevent the disruption of the Atlantic sturgeon upriver spawning migration.

Steel sheet pile cofferdams will be installed on each shoreline and the enclosed areas dewatered in order to construct the new bridge's abutments. The total length of sheet pile needed for both abutments will be about 400 linear feet. The sheet pile will be installed using a vibratory hammer and total installation time will be approximately 133 hours. About 0.7 acre of riprap will be placed along the base of the abutments to stabilize the shoreline.

Following construction of the new bridge, the existing obsolete bridge will be demolished mechanically and removed. The existing bridge's 330 timber piles will be snapped off and removed and sawcut at the mud line, if necessary. The existing bridge's abutment areas will be restored to a more natural condition.

We believe that Atlantic sturgeon, shortnose sturgeon, and green, Kemp's ridley, and loggerhead sea turtles may be present in the action area and may be affected by the project. We do not believe hawksbill or leatherback sea turtles will be present or affected because of their very specific life history, sheltering, and foraging requirements, which are not met in or near the action area - hawksbills are associated with coral reefs while leatherbacks are a deepwater, pelagic species. The project area is not located within critical habitat for any of these listed species. We have identified the following potential effects to these species and concluded that the species are not likely to be adversely affected:

1. Effects to Atlantic sturgeon, shortnose sturgeon, and green, Kemp's ridley, and loggerhead sea turtles include the risk of injury from construction machinery and associated activities (e.g., pile driving, barge movement, riprap placement), which will be discountable due to the species' ability to move away from the project site if disturbed. The applicant's compliance with NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* will provide an additional measure of protection by requiring work to stop if a protected species is seen within 50 ft of operating machinery.
2. Atlantic sturgeon, shortnose sturgeon, and green, Kemp's ridley, and loggerhead sea turtles may be affected by noise associated with the impact driving of concrete piles. Based on impact pile driving data (Appendix I – Compendium of Pile Driving Sound Data, updated in 2012) from the California Department of Transportation², this project's noise levels should be below the peak pressure threshold for injury to fish and sea turtles. The best scientific information available is for the installation of 24-inch-square (in²) concrete piles (via impact hammer) that produced noise levels of approximately 200 dB peak pressure at the source. The injury threshold is 206 dB peak pressure for both fish and sea turtles. Relatively small differences in concrete pile sizes have been found to have only minor effects on pile-driving noise levels. Pile-driving noise levels at the source will likely exceed the threshold for potential injury to fish from cumulative sound exposure levels (cSEL) and the threshold for behavioral effects to sturgeon and sea turtles. There is no established cSEL injury threshold for sea turtles. The installation of piles will produce cSEL levels of 212 dB at the source while the cSEL fish injury threshold for cSEL is 187 dB. A sturgeon would have to remain within a 49-meter (m)

² California Department of Transportation. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish (with updated 2012 Compendium). Final. February (ICF 645.10). Prepared by ICF Jones & Stokes, Sacramento, CA and Illingworth & Rodkin, Inc., Petaluma, CA.

radius of pile driving operations for 125 minutes (a full day's active pile driving) to receive injuries. In terms of behavioral effects the project's impact pile driving will produce about 185 dB Root Mean Square (RMS) of noise at the source, while the threshold for behavioral disturbance is 150 dB RMS for fish and 160 dB RMS for sea turtles. Based on this information, sea turtles may exhibit behavioral changes when within a 46-m radius of the project's active impact pile driving, and sturgeon when within a 215-m radius, because those are the distances at which noise levels are expected to dissipate to the respective thresholds.

3. Atlantic sturgeon, shortnose sturgeon, and green, Kemp's ridley, and loggerhead sea turtles may also be affected by noise associated with the vibratory driving of steel sheet piles. Based on updated 2012 data from the California Department of Transportation and injury criteria proposed by Hastings³ for vibratory pile-driving noise effects on fish and sea turtles, this project's noise levels should be below the threshold for injury. The installation of 24-in AZ steel sheet pile (via vibratory hammer) produced noise levels of approximately 192 dB peak pressure at the source. The injury threshold is 206 dB peak pressure for both fish and sea turtles. Assuming that a maximum of 10 steel sheet piles could be installed in a day, fish would be exposed to about 221 dB of cSEL noise from vibratory driving. The proposed cSEL injury threshold for fish is 234 cSEL. There is no proposed cSEL vibratory driving injury threshold for sea turtles. The vibratory installation of sheet piles will exceed the behavioral disturbance threshold for fish and sea turtles. The project's vibratory pile driving will produce about 178 dB RMS of noise at the source, while the behavioral threshold is 150 dB RMS for fish and 160 dB RMS for sea turtles. Based on this information, sea turtles may exhibit behavioral changes when within a 16-m radius of the project's active vibratory pile driving. Sturgeon may do the same when within a 74-m radius, because those are the respective distances at which we expect noise levels to dissipate to the respective thresholds.

Due to their expected avoidance of project noise and activity, we would not expect a sturgeon or sea turtle to remain stationary within those radii of a square concrete pile or steel sheet pile during installation operations. The project has adequate avenues for a sturgeon or sea turtle to escape or avoid the project area during pile-driving activities, and the project area could still be used by these species during early evening and night hours when pile driving and other construction activities will not occur. No impact or vibratory driving will be allowed during the times of the year when Atlantic sturgeon would be traversing the area (heading upriver) during their spawning migration. We believe the effects on sea turtles and sturgeon caused by noise generated during the installation of concrete piles and steel sheet piles during this project will be insignificant.

4. The installation of 60 square concrete piles (18-in by 18-in) will result in the permanent loss of 135 ft² of unvegetated river bottom (sand, silt, and clay) where sturgeon and sea turtles could forage for invertebrate prey. This type of substrate is abundant in the lower Savannah River system, though, and the removal of the obsolete bridge's 330 timber

³ Hastings, M.C. 2010. Recommendation for Interim Criteria for Vibratory Pile Driving. Submitted to ICF Jones & Stokes, Sacramento, CA. For task order on vibratory pile driving, Caltrans Contract 43A0228.

piles following the new bridge's construction will more than offset that loss of river bottom.

In conclusion, we concur with your determinations that the proposed actions are unlikely to adversely affect Atlantic sturgeon and green, Kemp's ridley, and loggerhead sea turtles, and are also unlikely to adversely affect shortnose sturgeon.

This concludes the FHWA's consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action.

Additional relevant information is enclosed for your review. We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Dr. Dave Rydene, Consultation Biologist, at (727) 824-5379, or by email at David.Rydene@noaa.gov.

Sincerely,

Miles M. Croom

for

Roy E. Crabtree, Ph.D.
Regional Administrator

- Enc.: 1. *Sea Turtle and Smalltooth Sawfish Construction Conditions* (Revised March 23, 2006)
2. *PCTS Access and Additional Considerations for ESA Section 7 Consultations*
(Revised June 11, 2013)

File: 1514-22.L.

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

F/SER46:DR

SER-2014-13454

Mr. Kevin S. Rose
Environmental Compliance Specialist
Eastern Federal Lands Highway Division
Federal Highway Administration
U.S. Department of Transportation
21400 Ridgetop Circle
Sterling, Virginia 20166-6511

FEB 10 2015

Ms. Melissa Memory
Superintendent
Fort Pulaski National Monument
P.O. Box 30757
Savannah, Georgia 31410-0757

Ref.: PRA-FOPU-10(3), Federal Highway Administration, Fort Pulaski Bridge Replacement,
Chatham County, Georgia

Dear Sir or Madam:

This letter amends portions of the National Marine Fisheries Service's (NMFS) informal consultation letter dated October 10, 2014, issued in accordance with Section 7 of the Endangered Species Act (ESA) of 1973 and referenced above. The Federal Highway Administration (FHWA) determined that the project may affect, but is not likely to adversely affect, Atlantic sturgeon and green, Kemp's ridley, and loggerhead sea turtles. FHWA also determined that there would be no effect to shortnose sturgeon. However, based on a recent sturgeon telemetry study, (Ingram 2014)¹ NMFS determined that the project may also affect shortnose sturgeon. Therefore, effects to that species were also considered in the original informal consultation letter and in this amendment letter. On October 10, 2014, NMFS concurred with FHWA's determinations that the proposed actions are unlikely to adversely affect Atlantic sturgeon and green, Kemp's ridley, and loggerhead sea turtles. NMFS also determined that the proposed actions are unlikely to adversely affect shortnose sturgeon.

NMFS staff received a phone call from Lisa Landers of FHWA on February 9, 2015. Ms. Landers stated that, due to the results of a bridge hydraulic report regarding potential storm surge issues, the bridge design was being modified. The original bridge design specified that 60 precast square concrete piles (18-inch [in] by 18-in) would support the new bridge. The latest modified bridge design will require that 96 precast square concrete piles (18-in by 18-in) support the new bridge.

¹ Ingram, E. 2014. Temporal and Spatial Patterns of Shortnose Sturgeon (*Acipenser brevirostrum*) and Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). M.S. thesis, University of Georgia, 85 pp.



The driving of the additional 36 piles (96 total piles rather than 60) would add approximately 7.2 days of pile driving to the project (a total of 19.2 days rather than the 12 days originally proposed). The installation of the 36 additional piles changes the permanent loss of unvegetated river bottom (sand, silt, and clay) where sturgeon and sea turtles could forage for invertebrate prey from 135 ft² to 216 ft².

The original noise attenuation and mitigation measures will still be implemented as described in the October 10, 2014, informal consultation letter. Micarta (a brand name for composites of linen, canvas, paper, fiberglass, carbon fiber, or other fabric in a thermosetting plastic) cushion blocks will be used during pile-driving operations. No in-water work will be done between April 15 and May 31, and/or between September 1 and November 30 to prevent the disruption of the Atlantic sturgeon upriver spawning migration. Pile driving will only occur during daylight hours. Also, the applicant will comply with NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions*, dated March 23, 2006.

Atlantic sturgeon, shortnose sturgeon, and green, Kemp's ridley, and loggerhead sea turtles may be affected by noise associated with the impact driving of concrete piles. The increase in the number of piles driven will not change the peak pressure experienced by ESA-listed species due to pile driving. Based on impact pile driving data (Appendix I – Compendium of Pile Driving Sound Data, updated in 2012) from the California Department of Transportation², this project's noise levels should be below the peak pressure threshold for injury to fish and sea turtles. The best scientific information available is for the installation of square, concrete piles (24-in by 24-in) (via impact hammer) that produced noise levels of approximately 200 dB peak pressure at the source. The injury threshold is 206 dB peak pressure for both fish and sea turtles. In addition, the smaller pile size actually being used for the project (square, 18-in by 18-in vs. square, 24-in by 24-in) and the use of Micarta cushion blocks means that peak pressure will likely be slightly lower than 200 dB.

Pile-driving noise levels at the source will likely exceed the threshold for potential injury to fish from cumulative sound exposure levels (cSEL) and the threshold for behavioral effects to sturgeon and sea turtles. There is no established cSEL injury threshold for sea turtles. The installation of piles will produce daily cSEL levels of 212 dB at the source while the cSEL fish injury threshold for cSEL is 187 dB. A sturgeon would have to remain within a 49-meter (m) radius of pile driving operations for 125 minutes (a full day's active pile driving) to receive injuries. In terms of behavioral effects, the project's impact pile driving will produce about 185 dB Root Mean Square (RMS) of noise at the source, while the threshold for behavioral disturbance is 150 dB RMS for fish and 160 dB RMS for sea turtles. Based on this information, sea turtles may exhibit behavioral changes when within a 46-m radius of the project's active impact pile driving, and sturgeon when within a 215-m radius, because those are the distances at which noise levels are expected to dissipate to the respective thresholds.

The increase in the total number of piles will not affect the daily noise exposure (i.e., peak pressure, cSEL, and RMS) experienced by ESA-listed species, but will increase the number of

² California Department of Transportation. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish (with updated 2012 Compendium). Final. February (ICF 645.10). Prepared by ICF Jones & Stokes, Sacramento, CA and Illingworth & Rodkin, Inc., Petaluma, CA.

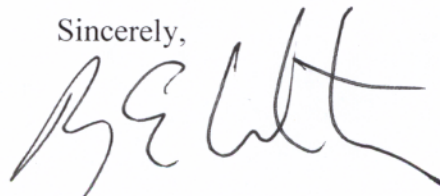
days that animals are exposed to pile-driving noise from 12 days as originally proposed to about 19.2 days as currently proposed. NMFS still expects ESA-listed species to avoid project noise and activity and does not expect these animals to remain stationary within the cSEL injury radius or RMS behavioral radius of a square concrete pile during installation operations. The project area has adequate avenues for a sturgeon or sea turtle to escape or avoid the area during pile-driving activities, and the project area could still be used by these species during early evening and night hours when pile driving and other construction activities will not occur. No impact driving will be allowed during the times of the year when Atlantic sturgeon would be traversing the area (heading upriver) during their spawning migration. Also, the project's active pile driving will only take place for a relatively short period of time and will be intermittent through the course of a day. In consideration of these factors, NMFS believes the effects on sea turtles and sturgeon caused by noise generated during the installation of 96 concrete piles during this project will be insignificant.

The installation of 96 square concrete piles (18-in by 18-in) will result in the permanent loss of 216 ft² of unvegetated river bottom (sand, silt, and clay) where sturgeon and sea turtles could forage for invertebrate prey. This type of substrate is abundant in the lower Savannah River system, though, and the removal of the obsolete bridge's 330 timber piles following the new bridge's construction will more than offset that loss of river bottom. Therefore, NMFS believes that the effects will be insignificant.

Based on the analyses of the above proposed project changes, NMFS concludes the action is not likely to adversely affect Atlantic sturgeon and green, Kemp's ridley, and loggerhead sea turtles, and is also unlikely to adversely affect shortnose sturgeon. This concludes the FHWA's consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action.

We look forward to further cooperation with you on other USACE projects to ensure the conservation and recovery of our threatened and endangered marine species. If you have any questions regarding this consultation, please contact Dr. Dave Rydene, Consultation Biologist, at (727) 824-5379, or by email at David.Rydene@noaa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Crabtree', with a stylized, flowing script.

Roy E. Crabtree, Ph.D.
Regional Administrator

MAY - 6 2014

In Reply Refer to: HFPP-15

Mr. Reid Nelson
Director, Office of Federal Agency Programs
Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue, N.W.
Suite 803
Washington, DC 20004

Subject: PRA-FOPU 10(3) Fort Pulaski Bridge Project
Fort Pulaski National Monument
Chatham County, Georgia

Dear Mr. Nelson:

The Federal Highway Administration (FHWA) and the National Park Service (NPS) propose to replace the Fort Pulaski Bridge, located at the Fort Pulaski National Monument. Recent assessments of the bridge have deemed it structurally deficient and its current configuration poses a safety hazard to pedestrians and bikers who must share the narrow bridge with vehicular traffic. The bridge provides the only ingress and egress to Fort Pulaski, so maintaining the bridge in a safe condition is essential to park operations.

In the proposed undertaking, a new bridge would be constructed adjacent to the existing bridge, and the existing bridge would be demolished. Photographs of the Fort Pulaski Bridge and conceptual drawings depicting the proposed project area are enclosed. The Fort Pulaski Bridge has been determined to be eligible for the National Register of Historic Places (NRHP) as a contributing resource to Fort Pulaski's cultural landscape. A formal determination of eligibility has not been made for the Fort Pulaski Bridge; however, the park's Cultural Landscape Inventory recommended that the bridge be listed as a contributing resource. Although the bridge has undergone several major rehabilitation projects, the bridge retains many of its character defining features. Additionally, the construction of the bridge was during the Public Works Administration era, although done by contract and not by public workers. Despite the current condition of the bridge, and the previous changes to the structure, the NPS and the Georgia State Historic Preservation Office agree the proposed demolition would be an *adverse effect* to the Fort Pulaski Bridge.

Opportunities for public comment regarding the proposed bridge rehabilitation or replacement were provided during the initial development of the Environmental Assessment for this project in February of 2011 and January of 2013. No public comments were received during either public comment period. Copies of the Environmental Assessment and Finding of No Significant Impact are enclosed. Initially, the proposed undertaking (preferred alternative) was to

rehabilitate the Fort Pulaski Bridge with significant changes to the structure and historic character of the bridge. The Georgia Historic Preservation Division (HPD) concurred that the proposed rehabilitation would have no adverse effect to historic properties.

By letter dated April 9, 2014, FHWA and NPS re-initiated consultation with HPD because the proposed undertaking has changed from rehabilitation of the Fort Pulaski Bridge to replacement of the Fort Pulaski Bridge. The proposed undertaking was determined to now have an adverse effect to the Fort Pulaski Bridge. An Environmental Assessment is currently underway to analyze and document the impacts of the proposed bridge replacement. In a letter dated April 30, 2014, the HPD concurred that the Fort Pulaski Bridge is eligible for the NRHP as a contributing resource to Fort Pulaski's cultural landscape, and that the proposed undertaking would have an adverse effect to the Fort Pulaski Bridge. Copies of these two letters are enclosed.

FHWA and NPS plan to continue consultation with HPD to develop a Memorandum of Agreement to stipulate measures to be taken to mitigate the adverse effects. In accordance with 36 CFR Parts 800.6 and 800.10, we are inviting the participation of the Advisory Council on Historic Preservation.

Please provide us with your response within thirty (30) days of the receipt of this letter. If you have any questions regarding the proposed project or the Section 106 consultation to date or need any additional information, please contact Ms. Lisa Landers, Environmental Protection Specialist, Lisa.Landers@dot.gov, (571) 434-1592.

Sincerely,



Kevin S. Rose
Environmental Compliance Specialist

Enclosures

cc:

Ms. Stephanie Jordan, Transportation Projects Coordinator, Georgia Department of Natural Resources, Historic Preservation Division
Ms. Melissa Memory, Superintendent, National Park Service, Fort Pulaski National Monument
Ms. Laura Rich-Acosta, Facility Manager, National Park Service, Fort Pulaski National Monument
Mr. Steven Wright, Environmental Protection Specialist, National Park Service, Southeast Region
Mr. Benjamin Marnell, Project Manager, National Park Service, Southeast Region
Mr. Kent Cochran, FLHP Coordinator, National Park Service, Southeast Region



Preserving America's Heritage

June 12, 2014

Kevin S. Rose
Environmental Compliance Specialist
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, VA 20166-6411

Ref: *Proposed Replacement of the Fort Pulaski Bridge*
Chatham County, Georgia
PRA-FOPU 10(3)

Dear Mr. Rose:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Georgia State Historic Preservation Office (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Najah Duvall-Gabriel at 202-517- 0210 or at ngabriel@achp.gov.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

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