

**APPENDIX F
ESSENTIAL FISH HABITAT ASSESSMENT**

(This page intentionally left blank)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

Ms. Shari A. Miller
Center NEPA Manager
Environmental Planning Lead
National Aeronautics and Space Administration
Goddard Space Flight Center, Wallops Flight Facility
Wallops Island, Virginia 23337

NOV 19 2018

Re: Draft NASA WFF Shoreline Enhancement and Restoration Project; Essential Fish Habitat Assessment

Dear Ms. Miller,

NOAA Fisheries Service has reviewed the National Aeronautics and Space Administration (NASA) draft essential fish habitat (EFH) assessment for the proposed NASA WFF Shoreline Enhancement and Restoration Project (SERP) at Wallops Island, Virginia. This consultation is part of the tiered consultations from the 2010 Final Shoreline Restoration and Infrastructure Protection Program (SRIPP) Final Programmatic Environmental Impact Statement (PEIS) as presented in the 2013 Final Post-Hurricane Sandy Environmental Assessment (EA). As you know, the project area is designated as EFH for various life stages of twenty-one (21) federally managed species. There is no habitat area of particular concern (HAPC) designated for the project area.

In the Record of Decision (ROD) issued December 13, 2010 for the WFF SRIPP PEIS, (2010 Final SRIPP PEIS) the stated goal of the SRIPP is to reduce direct impacts to Wallop's Island infrastructure that supports the aerospace programs at the heart of NASA's mission. NASA selected Alternative 1: full beach fill and seawall extension, which included the placement of approximately 3.2 million cubic yards of sand dredged from Unnamed Shoal A, located approximately 5 miles east of Assateague Island on the Outer Continental Shelf (OCS), and the initial 1,430 ft. southerly extension of the Wallops rock seawall, with future extension up to a maximum length of 4,300 ft. to be completed on a funds-available basis. An estimated nine beach re-nourishment maintenance cycles were projected to occur at approximately 5-year intervals. The ROD stated that sandy beach fill material for future re-nourishment cycles would be dredged from either Unnamed Shoal A, Unnamed Shoal B, or excavated from the northern beach on Wallops Island.

Since issuing the ROD, NASA has nourished the Wallops Island beach twice, once in 2012 during initial 3.7-mile beach fill and again in 2014 following Hurricane Sandy (October 2012) when repairs to a section of the seawall and two-thirds of the recently nourished beach were necessary to restore designed sand volume and elevations. Subsequent storms in 2015, 2016 and 2018 have reduced the sand volume to 43 percent of the design levels. Topographic and hydrographic monitoring conducted bi-annually (spring and fall) by the USACE Norfolk District indicates sediment is being transported from the southern end of the project area to the northern



end of the island. Consequently, the USACE Norfolk District has evaluated construction of offshore stone breakwaters to reduce the rate of sediment transport and erosion.

As you know, the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267; 11 October 1996), requires all Federal agencies to consult with us on all actions, or proposed actions, permitted, funded, or undertaken, that may adversely affect EFH. As the lead Federal agency for this project, you are responsible for EFH consultation. Based on our review of the draft EFH assessment for the WFF Shoreline Enhancement and Restoration Project, our comments and conservation recommendations are provided below.

Beach Renourishment and Breakwater Construction

The currently proposed re-nourishment cycle requires approximately 1.3 million cubic yards of material and would utilize sand from either the beach on the northern end of Wallops Island (Alternative 1) or from Unnamed Shoal A (Alternative 2). If sand is mined from Unnamed Shoal A, the renourishment cycle and impacts to EFH are essentially equivalent to the project's renourishment component described in the 2010 *SRIPP EFH Assessment and Final PEIS*. Moving sand from the north back to the south, called "backpassing" sand (Alternative 1) would include excavating sand using heavy equipment from the beach on the northern end of Wallops Island and hauled by truck down the beach to the south where it would be dumped and spread channelward using bulldozers. Sand would be excavated from MLW landward to beyond the existing primary dune, along the historic 2007 shoreline.

The bi-annual shoreline analysis conducted by the USACE Norfolk District indicates large amounts of accretion has occurred at the northern end of the island due to longshore transport of material from the southern portion of the project area and possibly from sediment bypassing Assateague Island. However, they also noted that there were large losses of material (erosion) experienced in Subreach 3 of Wallops Island – North, adjacent to Chincoteague Inlet. We are concerned that excavation of sand material in the accretion area (Alternative 1) may exacerbate the erosion occurring in the area adjacent to the inlet.

Impacts to EFH would be limited to sand excavated below MHW at the northern end of the island and placed below MHW along the southern nourishment area. The draft EFH assessment states that "sand sourced from an active beach is coarser and typically cleaner than sand from offshore shoals" resulting in less turbidity during construction than slurried material pumped via hydraulic pipeline. Impacts to the existing benthos and EFH would occur below existing MHW at both the northern excavation and southern placement areas.

In addition to sand excavation/dredging and placement of sand along the beach, NASA may construct two (2) sets of three (3) offshore, stone breakwaters designed to reduce wave energy and help hold the sand in place. Each set of breakwaters will be comprised of three (3) structures measuring 130 ft. long, 55 ft. base width, and 10 ft. crest width extending 5.7 ft. above mean high water (MHW). The breakwaters will be sited approximately 300 ft. (BK-1, 2, 3) and 475 ft. (BK-4, 5, 6) offshore from existing mean high water (MHW), and will be constructed with 100 ft. wide gaps spaced between structures. Impacts to the existing benthos and EFH will occur

within the 0.98-acre footprint of the stone breakwaters, while a portion of the water column will be displaced by stone and permanently lost.

Magnuson-Stevens Act Conservation Recommendations

Section 305(b)(2) of the MSA requires you to consult with us on any action you authorize, fund, or undertake that may adversely affect EFH. As we have stated, the project area is designated as EFH for various life stages of 21 federally managed species including Albacore tuna (*Thunnus alalunga*), Atlantic angel shark (*Squatina dumerili*), Atlantic butterfish (*Peprilus triacanthus*), Atlantic sea herring (*Clupea harengus*), black sea bass (*Centropristus striata*), blacktip shark (*Carcharhinus limbatus*), bluefish (*Pomatomus saltatrix*), clearnose skate (*Raja eglanteria*), cobia (*Rachycentron canadum*), common thresher shark (*Alopias vulpinus*), dusky shark (*Charcharinus obscurus*), king mackerel (*Scomberomorus cavalla*), red hake (*Urophycis chuss*), sand tiger shark (*Odontaspis taurus*), sandbar shark (*Charcharinus plumbeus*), skipjack tuna (*Katsuwonus pelamis*), smooth dogfish (*Mustelus canis*), Spanish mackerel (*Scomberomorus maculatus*), summer flounder (*Paralichthys dentatus*), windowpane flounder (*Scopthalmus aquosus*), and winter skate (*Leucoraja ocellata*).

Therefore, pursuant to 305(b)(4)(A) of the MSA, we recommend the following EFH conservation recommendations:

1. If Alternative 2 is implemented, target accretion areas of Unnamed Shoal A for dredging to obtain the necessary beach fill material.
2. If Alternative 2 is implemented, dredge over a large area, leaving undisturbed areas between dredged areas to provide for benthic recruitment and recolonization of impacted areas and avoid creating deep pits; follow the existing bathymetry/morphology of shoal to the extent possible, limit depth of cut not to exceed 10 ft. and confirm by conducting post-dredge survey.
3. Construct proposed offshore breakwaters with sand tombolo such that the beach connects with the structures to reduce starving down-drift beaches of sand.
4. If Alternative 1 is implemented, conduct bi-annual post-construction monitoring of the accretion area at northern end of Wallops Island and adjacent erosion area at Chincoteague Inlet. Adaptively manage any unforeseen consequences of “backpassing” sand to the southern project area.

Provided the Conservation Recommendations listed above are accepted and implemented into the project, we concur with your determination that the Shoreline Enhancement and Restoration Project (SERP) on Wallops Island will not substantially adversely affect essential fish habitat (EFH).

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with written response to these EFH conservation recommendations including a description of measures you have adopted that avoid, mitigate or offset the impacts of the project on EFH. In the case where your response is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that you must provide reasons for not following our recommendations. Included in your response should be the scientific justification for your disagreement over the anticipated effects of the proposed project and the measures necessary to avoid, minimize,

mitigate or offset such effects pursuant to 50 CFR 600.920(k). If new information becomes available or the project is revised in such a manner that affects the basis for our EFH conservation recommendations, consultation must be reinitiated with us pursuant to 50 CFR 600.920(1).

Please note that this EFH determination does address threatened and endangered species under the purview of NOAA Fisheries Service. Therefore, please contact Mr. Brian Hopper, NOAA Protected Resources Division at 410-573-4592 (Brian.D.Hopper@noaa.gov) to discuss your obligations under Section 7 of the Endangered Species Act (ESA) regarding potential impacts to the federally listed sea turtles.

Conclusions

Thank you for the opportunity to comment on the Draft NASA WFF Shoreline Enhancement and Restoration Project EFH assessment. Please feel free to contact Mr. David O'Brien of our Virginia field office at 804-684-7828 (david.l.o'brien@noaa.gov) if you have any questions regarding these recommendations.

Sincerely,



Louis A. Chiarella
Assistant Regional Administrator
for Habitat Conservation

cc: Chris Moore, NEFMC
Lisa Havel, ASMFC
Brian Hopper, PRD