

CORRESPONDENCE

All other



New England Fishery Management Council

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John F. Quinn, J.D., Ph.D., *Chairman* | Thomas A. Nies, *Executive Director*

July 23, 2018

Mr. Michael Pentony
Regional Administrator
National Marine Fisheries Service
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
Gloucester, MA 01930

Dear Mike:

Enclosed are DVDs of the documents and information needed pertaining to the Conservation Law Foundation lawsuit. In addition, we have uploaded this information to the secured Accellion site in three separate batches.

The information provided on these DVDs include:

- 2004 – Original scoping comments and five scoping hearing summaries.
- 2007 – Phase 1 public hearing summaries.
- 2004 – 2018 Council Meeting Materials
- 2004 – 2018 Committee/AP/PDT Meeting Materials including discussion documents, attendance sheets and meeting summaries where available.
- 2017 – Deeming letter for OHA2
- 2004-2018 – CATT/SSC SASI Review/SASI Peer Review Materials

Audio recordings of Council meetings are available online from 2006 on and any other meeting audio is available upon request.

Please communicate any need for further information directly to me.

Sincerely,

Thomas A. Nies
Executive Director

cc: Mitch MacDonald
Moir Kelly



New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
John F. Quinn, J.D., Ph.D., *Chairman* | Thomas A. Nies, *Executive Director*

July 5, 2018

Ms. Julia Livermore
Principal Biologist
RI Division of Marine Fisheries
3 Ft. Wetherill Rd.
Jamestown, RI 02835

Dear Ms. Livermore,

Jason McNamee and I spoke a few weeks ago regarding your potential membership on the Council's Habitat Plan Development Team (PDT). The staff and I agree that you would be a valuable addition to the team and that we would be pleased to add you as a member.

Michelle Bachman chairs the PDT, and she will contact you directly with additional details about upcoming meetings and work priorities. The PDT is currently working on a framework action considering clam and mussel dredge exemptions in a habitat management area on Nantucket Shoals, analyses to inform assessment of fish and fisheries related issues around offshore wind, and updates to the Council's habitat impacts model. The PDT will submit the Council's deep-sea coral amendment for review later this summer. The Council's major EFH-related amendment, Omnibus Habitat Amendment 2, was implemented on April 9, 2018, and additional trailing actions beyond the clam framework may also be developed in the coming years.

Detailed information about the Council's PDTs can be found in our Statement of Organization, Practices, and Procedures (<http://s3.amazonaws.com/nefmc.org/SOPP-2015-FINAL.pdf>) and in our Operations Handbook on (http://s3.amazonaws.com/nefmc.org/fin02.2017_Operations-Handbook.pdf). As explained in the handbook, PDTs are working groups and therefore all members are expected to contribute to analyses and documents. It is important for members to be as impartial as possible in evaluating management alternatives, and members should be careful not to become advocates for a particular management approach or interest group.

Please contact Michelle at 978-465-0492 x 120 or at mbachman@nefmc.org if you have any immediate questions, otherwise you will be hearing from her in the coming days.

Sincerely,

Thomas A. Nies
Executive Director

cc: Jason McNamee, RIDEM – DMF



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

July 3, 2018



Mr. Thomas A. Nies
Executive Director
New England Fishery Management Council
50 Water Street
Newburyport, MA 01950

Dear Tom:

In your letter dated June 18, 2018, you requested that the Center "*investigate the feasibility of side scan sonar surveys in any exemption areas designated under this framework,*" [which may designate exemption areas for clam dredge vessels in the recently implemented Great South Channel Habitat Management Areas].

The NEFSC has discussed the question and issue with Michelle Bachman (NEFMC) and Kathryn Ford (MA DMF). We agree that side-scan sonar is probably the best instrumentation to identify bottom habitat type over the area, since it provides relatively wide swath widths of backscatter data (sound reflectivity, which can be interpreted as substrate type), regardless of depth. Multibeam sonar can also be used, but swath widths are depth-dependent and some of the area may be so shallow that the swath width becomes very narrow and mapping becomes very inefficient. Swath bathymetry, another possible mapping option, would not provide backscatter data, limiting the use to map habitats.

Michelle Bachman and Kathryn Ford estimated that side-scanning the entire shoal area (~2200 km²) would take at least 30 days at 24-hours per day, depending on desired overlap between tracklines and swath width of the instrument used. If the vessel works less than a 24-hour day, more time would be needed.

An alternative would be to map a portion of the management area (for example 300-400 km²), establish a relationship between habitat type and topography, and extrapolate the results to the existing low-resolution topography available for the entire area. This alternative would require less in terms of field resources but would require more analysis and would result in less precise habitat mapping.

Based on this alternative, assuming a 400 km² area, a 100 m sonar range (200 m swath width) with 20% overlap, 24-hour operations, and a 5-knot operating speed, an estimated 10 days at sea would be required to complete the survey. The survey would need to be done aboard a vessel small enough to negotiate shallow depths in the area and with the ability to accurately follow track-lines. NEFSC has side-scan sonar aboard the HabCam scallop survey camera vehicle, but operation of the NEFSC's HabCam is not well-suited to surveying the shallow areas. A simple

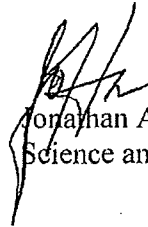


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side-scan towfish system aboard a smaller vessel would be better alternative. There may also be the opportunity to leverage drop camera or towed camera technologies, relate images to side-scan sonar and/or topography, and apply relationships to the larger area.

That said, the NEFSC does not have the resources to conduct the survey as described above. There may be value in discussing the project with NOAA-UNH Center for Coastal and Ocean Mapping Joint Hydrographic Center or, alternatively, with researchers in the region who have experience with side-scan or image-based habitat classification. The NEFSC is willing to discuss the project with other partners if the Council agrees.

Sincerely,



Jonathan A. Hare, Ph.D.
Science and Research Director

cc: R. Beal
C. Moore
M. Pentony



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

June 22, 2018

Susan L. Conner
Chief, Planning & Policy Branch
Water Resources Division
US Army Corps of Engineers
Norfolk District
Fort Norfolk
803 Front Street
Norfolk VA 23510-1011



RE: Norfolk Coastal Storm Risk Assessment Project
Norfolk, VA

Dear Ms. Conner:

We have reviewed the essential fish habitat (EFH) assessment for the Norfolk Coastal Storm Risk Project provided to us pursuant to Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The US Army Corps of Engineers (ACOE) and the City of Norfolk are developing and evaluating coastal storm risk management measures to reduce risk to residents, industries, and businesses which are critical to the nation's economy. The preferred alternative identified in the EFH assessment consists of constructing and maintaining the following:

- Structural features including storm surge barriers across the mouths of Pretty Lake, Lafayette River, The Hague, and Broad Creek;
- Floodwalls flanking each storm surge barrier;
- Floodwalls extending from Lamberts Point to Harbor Park, and east of Chesterfield Heights to Broad Creek;
- Smaller tide gates at several tidal inlets;
- Pump stations including backup generators at various locations;
- Nonstructural measures consisting of: relocation, property acquisition, flood proofing (wet/dry), raising/elevations, flood warning systems, flood emergency preparedness plans, and public education; and ringwalls within the areas containing nonstructural measures;
- Backflow preventers on existing storm water pipes as needed to ensure no backflow of tidal water into the City;
- Natural and Nature-Based features associated with the structural features, and/or to serve as compensatory onsite mitigation.

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Magnuson-Stevens Fishery Conservation and Management Act (MSA)

The MSA requires federal agencies to consult with us on projects such as this that may affect EFH and other aquatic resources. This process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments, lists the required contents of EFH assessments, and generally outlines each agency's obligations in the consultation process.

The required contents of an EFH assessment include: 1) a description of the action; 2) an analysis of the potential adverse effects of the action on EFH and the managed species; 3) the federal agency's conclusions regarding the effects of the action on EFH; 4) proposed mitigation, if applicable. Other information that should be contained in the EFH assessment, if appropriate, includes: 1) the results of on-site inspections to evaluate the habitat and site-specific effects; 2) the views of recognized experts on the habitat or the species that may be affected; 3) a review of pertinent literature and related information; and 5) an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH.

We have reviewed the EFH assessment provided for the preferred alternative for this project and find that it does not adequately assess all of the direct, indirect, individual and cumulative impacts of the construction and operation of the preferred alternative on EFH and managed species. Because this project is being developed under the Corps' SMART (Specific, Measurable, Attainable, Risk Informed, Timely) Planning process for conducting civil works feasibility studies for water resources development projects, we understand that limited information and studies are currently available to evaluate the effects of the proposed action. Unfortunately, this process also limits our ability to adequately assess the effects of the action on our trust resources.

Because of the limited information contained in the EFH assessment on site specific habitat conditions and aquatic resources, design details of the various project elements, and the area of aquatic habitat to be impacted, as well as the lack of any hydrologic studies to evaluate the effects of the placement of storm surge barriers, gates and other structures across a number of waterways within the project area on aquatic resources and habitats, it is not possible to fully evaluate the impacts of this project. As a result, while we agree that the implementation of the preferred alternative has the potential to directly and indirectly impact EFH, managed fish species, and associated prey, we cannot concur that the impacts will range from negligible to minor and temporary in duration, or that these effects would be limited to construction and maintenance of project elements. We also cannot concur that implementation of the preferred alternative will not result in cumulative or synergistic effects with other past, present, or future projects.

From the limited information provided, we must conclude that the implementation of the preferred alternative could have substantial and unacceptable impacts to EFH, managed species and other aquatic resources of national importance. These adverse effects include the direct and permanent loss of habitat through the placement of fill within the aquatic environment due to the construction of several project elements, as well as the degradation of aquatic habitat due to the

hydrologic changes resulting from the installation of barriers and other flood control structures across waterways within the project area. Since detailed information on the individual project elements and site specific, existing habitat conditions are not available at this stage in the planning process, submitting a revised EFH assessment for our review would not aid in the development of more specific EFH conservation recommendations. As a result, the conservation recommendations listed below are general in nature and may be revised as plans are developed for the individual project elements.

EFH Conservation Recommendations

At this phase of the project, we are providing the following general EFH conservation recommendations pursuant to Section 305(b) (4) (A) of the MSA:

- Avoid the placement of fill material and structures, including storm surge barriers and tide gates, berms, levees and floodwalls in the aquatic environment. It must be demonstrated that impacts have been avoided and minimized. Studies may be necessary to fully evaluate unavoidable impacts on all components of EFH and federally managed species.
- Provide compensatory mitigation for all unavoidable adverse effects to aquatic resources including all components of EFH and federally managed species. Filling of one type of aquatic habitat to create another, as may be proposed as a Natural or Nature-Based feature of the project may not be acceptable as compensatory mitigation for impacts to our trust resources or their habitats.
- During the Preconstruction, Engineering and Design Phase, undertake studies and data collection to fully characterize the existing habitat conditions of the areas to be affected by the project and to evaluate the effects of the hydrologic alterations on all components of EFH including water quality, early life stages of fish, plankton, sediments and benthic organisms.
- Reinitiate EFH consultation with us for each project element as additional information becomes available during the Preconstruction, Engineering and Design Phase.

As the individual project elements move to the Preconstruction, Engineering and Design Phase, EFH consultation with us should be reinitiated and more detailed EFH assessments should be provided that fully address all of the direct, indirect, individual and cumulative effects of the actions proposed. These assessments should include site specific habitat information (benthic sampling including shellfish sampling and sediment data, fisheries data, and water quality information), details of the construction activities proposed including design plans (exact location of structures, size, footprint), construction methods, timing of construction, area of aquatic habitat to be lost or altered, avoidance and minimization measures employed and compensatory mitigation plans, if needed. For areas where storm surge barriers, tide gates or other structures are planned across tidal water bodies, hydrologic analysis should be undertaken to evaluate changes in tidal regime, salinity, dissolved oxygen, flow velocity, scour, sedimentation rates, and current patterns and how this will affect water quality, the movement of aquatic species including plankton and early life stages of fin fish and shellfish, as well as how these impacts are affected by the operation, timing, duration and frequency of gate closure. The

effects on existing oyster reefs and clam beds within these waterbodies should also be examined as well as the effects of increasing sea level over the life span of the project.

According to your EFH assessment, the larger Norfolk study area has been broken into four smaller, sub-areas:

- Area 1: Mason Creek, Pretty Lake, and Willoughby Spit
- Area 2: Lafayette River Watershed
- Areas 3 & 4: The Elizabeth River Mainstem and Eastern Branch, The Hague, Ohio Creek, and Broad Creek

We suggest that these sub-areas could be used to focus additional studies and data collection, as well as future EFH consultations. We will work with your staff during the Preconstruction, Engineering and Design Phase to identify data needs and studies necessary to fully evaluate the effects of the various project elements on EFH, managed species and other aquatic resources. We will also assist in identifying the direct, indirect, individual and cumulative effects to be evaluated in the EFH assessments prepared during the next phase of project development.

Section 305(b)(4)(B) of the MSA requires you provide us with a detailed written response to our EFH conservation recommendations, including a description of measures adopted by the Corps for avoiding, mitigating, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, you must explain your reasons for not following the recommendations, including the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k). In addition, if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations the EFH consultation must be reinitiated pursuant to 50 CFR 600.920(l). The changes to EFH designations, the identification of new EFH or HAPCs also trigger the need to reinitiate consultation.

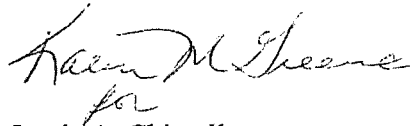
Endangered Species Act (ESA)

Federally threatened or endangered species under our jurisdiction may be present in the project area. Our Protected Resources Division is currently reviewing the information provide to them by your staff and will be commented separately. However, we also note that the EFH assessment provided to us includes a discussion of Atlantic sturgeon and shortnose sturgeon. These species are listed under the ESA, not the MSA. As such, they will be addressed as part of the coordination with PRD. Should you have any questions about the Section 7 consultation process, please contact Christine Vaccaro at (978) 281-9167 or by e-mail (christine.vaccaro@noaa.gov).

We look forward to continued coordination with your office on this project as it moves forward into the Preconstruction, Engineering and Design Phase. Further EFH consultation at this early stage of project development is not possible. As stated, we will work with your staff to identify information needs and studies designed to evaluate the effects of the individual project elements. Reinitiating consultation once specific project details are available will allow the overall project

to move expeditiously and economically while also meeting our joint responsibilities to protect and to conserve aquatic resources including EFH and managed species. If you have any questions or need additional information, please do not hesitate to contact David O'Brien in our Gloucester Point, VA field office at 804-684-7828 (david.l.o'brien@noaa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Louis A. Chiarella". The signature is fluid and cursive, with a small "for" written below the main name.

Louis A. Chiarella
Assistant Regional Administrator
Habitat Conservation Division

cc: A. Logalbo, M. Ryan, NAO Corps
M. Murry Brown, C. Vaccaro – GARFO PRD
S. Ellis – GARFO SED
J. Cudney – NMFS HMS
C. Moore – MAFMC
T. Nies – NEFMC
L. Havel - ASMFC



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JUN 18 2018

Susan L. Conner
Chief, Planning & Policy Branch
Water Resources Division
US Army Corps of Engineers
Norfolk District
Fort Norfolk
803 Front Street
Norfolk VA 23510-1011



RE: Norfolk Harbor Navigation Improvements, Essential Fish Habitat Assessment

Dear Ms. Conner:

We have reviewed the revised essential fish habitat (EFH) assessment for the Norfolk Harbor Navigation Improvements Project in Hampton Roads, Virginia. The preferred alternative for this project includes the following components:

- Deepening the Atlantic Ocean Channel to a required depth of approximately 59 feet;
- Deepening the Thimble Shoal Channel to a required depth of approximately 56 feet;
- Widening the Thimble Shoal Channel Meeting Areas (one on each side of the Chesapeake Bay Bridge Tunnel) to approximately 1,200-1,400 feet (an additional 200-400 feet from current conditions) and deepening where necessary to a required depth of 56 feet;
- Deepening Anchorage F to a required depth of approximately 55 feet;
- Deepening the Norfolk Harbor Channel to a required depth of approximately 55 feet;
- Deepening the Newport News Channel to a required depth of approximately 55 feet;
- Maintenance and operation of the Craney Island Dredged Material Management Area (CIDMMA).

Material dredged from the channels to increase width and depth will be disposed of at the Norfolk Ocean Disposal Site (NODS), Dam Neck Ocean Disposal Site (DNODS) and the (CIDMMA). According to the revised EFH assessment, construction is anticipated to begin in approximately 2023 but is contingent on available funding. Construction of all channels and Anchorage F will take approximately 3.5 to 4 years to complete over the course of 12.6 total years. In general, construction operations will average approximately 18 hours per day with approximately 6 hours per day for required equipment maintenance and personnel shifts.

Maintenance dredging of the channels is anticipated to occur on the following schedule based upon available funding.

- Atlantic Ocean Channel: approximately every 2-3 years;
- Thimble Shoals Channel: approximately every 2-3 years;

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- Norfolk Harbor Channel: approximately every 12-15 months;
- Newport News Channel: approximately every 2 years;
- Anchorage F: approximately every 5 years.

According to the revised assessment the maintenance dredging schedule may be accelerated if there is an imminent need, such as storm-related shoaling, or delayed depending on available funding.

Magnuson Stevens Fishery Conservation and Management Act (MSA)

As discussed in our previous letter dated March 15, 2018, the EFH assessment includes a good discussion of the federally managed species for which EFH has been designated within the project area and some of the prey species present. Because the scope of this project is so large, covering more than 30 miles of channels, and because of a number of details regarding construction, such as the delineation of contract areas within each reach, the construction schedule for each reach/contract area, the type of sediments to be removed, and equipment to be used within each reach/contract area, we recognize that it is difficult to evaluate all of the direct, indirect, individual and cumulative effects of implementing the preferred alternative on EFH and federally managed species as required by 50 CFR 600.920(e)(3)(ii). As you discussed with Karen Greene, of my staff, on June 8, 2018, we can provide several broad and precautionary EFH conservation recommendations. We will continue to work with you and your staff to further evaluate the effects of the project on EFH and managed species as the project plans are refined during the Preconstruction, Engineering and Design Phase of the project. This will allow us to assist you in moving this project forward expeditiously and economically while also meeting our joint responsibilities to protect and to conserve aquatic resources including EFH and managed species.

The revised EFH assessment provided to us considers a number of the potential adverse effects to EFH that may occur as a result the construction of the project including impacts to water quality and benthic habitats, as well as the potential effects of underwater noise. However, these adverse effects were not evaluated fully on all components of EFH or all life stages of managed species for which EFH has been designated. Other potential adverse effects including those resulting from the permanent changes in depth, the potential alteration of egg and larval transport, and changes in prey species composition or abundance due to habitat impacts are not considered. Direct mortality of early life stages is also not addressed.

The revised EFH assessment also does not consider the cumulative effects of multiple dredging operations occurring concurrently. The operation of several dredges at the same time could increase noise levels and water quality effects. The information in the EFH assessment indicates that 151 months (12.6 years) of construction is needed to complete the construction of the preferred alternative. However, the document also states that work will be completed in 3.5 to 4 years. In order to complete the project in this shorter timeframe, it seems likely that a number of dredges will need to be working at the same time. The synergistic and cumulative effects of the operation of multiple dredges operating within the project area on EFH and managed species should be evaluated during the next phase of project development as the construction schedule is formulated.

All of the effects of the new work dredging, such as increasing the depths in the portions of the channel to be widened, have not been evaluated. While the revised EFH assessment does state the widened channel may increase up to an additional 30 feet on each side due to the side slopes, there is no discussion of the effects of this depth change on EFH and managed species. Similarly, there is no discussion of effects of the deepening in areas where the channels will be intentionally widened. We are particularly concerned if the deepening occurs where depths are currently shallow, e.g. less than 4 meters, as the conversion of shallow water habitat to deep water habitat can alter its habitat value as EFH for some species. In addition, the EFH assessment does not include any information on benthic sampling that may have been undertaken in the areas to be deepened, either directly or through channel widening. Without information on the benthic species present in these areas, the effects of the project cannot be evaluated fully. Of particular concern are the effects on shellfish, such as hard clams and blue crabs, whose habitat could be lost or degraded as a result of project implementation.

In addition to their economic value, shellfish have an important ecological role in the estuary. As filter feeders, bivalves play a role in improving water quality, and serve as a food source for a variety of fish. Infaunal species such as clams filter significant volumes of water, effectively retaining organic nutrients from the water column (Nakamura and Kerciku 2000; Forster and Zettler 2004). Clams are also prey species for a number of federally managed fish including bluefish, skates, summer flounder, and windowpane, and scup (Steimle et al. 2000). Coen and Grizzle (2007) discuss the ecological value of shellfish habitat to a variety of managed species (e.g. American eel, winter flounder) and have suggested its designation as EFH for federally managed species. These ecological values are independent from their value for human consumption. As such, Virginia Department of Health (VDH) Division of Shellfish Sanitation's classifications used for harvesting are not relevant when evaluating the effects of the project on these species. Condemnation of an area for harvesting for human consumption does not affect its ecological value.

The blue crab is the preferred prey species during various life stages of several federally managed finfish species including cobia, black sea bass, sandbar shark, summer flounder, Atlantic croaker, as well as other recreational and commercially important species such as red drum, spotted sea trout, striped bass, American eel and yellow perch. Steimle et al. (2000) has documented that juvenile blue crabs are a food source for several state and federally managed fish species including little skate, winter skate, scup, and summer flounder. In addition to their ecological value, there is an important recreational and commercial fishery for blue crabs in Chesapeake Bay. The Thimble Shoal Channel cuts through a blue crab sanctuary area established by the Virginia Marine Resources Commission, but the assessment contains no analysis of effects. Female blue crabs enter channel and slough areas in and around Thimble Shoal Channel in October, burrowing into surficial sediments as water temperature declines. Overwintering blue crabs in a dormant, immobile state would be unable to escape entrainment into the dredge or burial from the overboard disposal of dredged material. As a result, dredging and the overboard disposal of dredged material should be avoided within the sanctuary area from October 15 to March 31 of any year. During the Preconstruction, Engineering and Design Phase of the project,

additional data collection may help to refine and focus the timing and areal of extent of this seasonal work restriction.

While the assessment mentions that studies were conducted to evaluate the effects of the channel deepening on water quality and salinity regime, it does not appear to have evaluated the effects of the deepening on the movement of phytoplankton and zooplankton which comprise either prey species for managed species or early life stages of managed species. Because these organisms generally move with the water flow, alterations in the hydrodynamics of the system may affect their distribution and adversely affect the quality of EFH for some species.

As stated in our previous letter, several channels and Anchorage F located in Hampton Roads are within migration corridors used by anadromous fish such as alewife, blueback herring, American shad, hickory shad, striped bass, yellow perch, and white perch. The Virginia Department of Game and Inland Fisheries (VDGIF) has designated Hampton Roads as a confirmed anadromous fish use area. Juvenile *Alosa* species have all been identified as prey species for windowpane flounder, winter skate, and summer flounder (Steimle et al. 2000). Buckel and Conover (1997) in Fahay et al. (1999) reported that the diet of juvenile bluefish includes *Alosa* species such as blueback herring and alewife. Activities that adversely affect the migration and spawning success of anadromous fish will adversely affect EFH for juvenile bluefish, summer flounder, windowpane flounder and others by reducing the availability of prey items. Water quality degradation, increased turbidity, noise and vibrations from dredging operations may impede the migration of anadromous through the project area to their upstream spawning grounds.

The EFH assessment does not specifically evaluate the effects of the project on anadromous fish. The assessment does include some discussions of the effects of the project on water quality including increased turbidity and noise, but the analysis of the effects on specific species is limited. Based on the volume of material to be dredged from these Hampton Roads locations, a time of year restriction on dredging, or sequencing the dredging schedule to avoid the most sensitive areas during times of migration and spawning, may be appropriate. Based upon the information available in the EFH assessment, dredging within the Norfolk Harbor Entrance Channel and the Newport News Channel, including Anchorage F should be avoided from February 15 to June 30 of any year to avoid impacts to anadromous species. However, we will work with your staff as plans for these areas are developed to help refine this recommendation. Depending upon the timing of the work, the equipment to be used, and the contract boundaries of the dredging and disposal areas, it may be possible to sequence the work to reduce or eliminate the need for seasonal restrictions protective of anadromous species in lower Hampton Roads.

In our March 15, 2018 letter, we also discussed the potential effects of construction of the preferred alternative on sandbar shark Habitat Areas of Particular Concern (HAPC) and offered a number of general EFH conservation recommendations that were identified by our Highly Migratory Species program (HMS). The general EFH conservation recommendations include the use of seasonal restrictions to avoid operations during critical life history stages such as shark pupping and the use of best engineering and management practices (e.g., seasonal restrictions, modified dredging methods, and/or disposal options) for all dredging and in-water construction projects. Beneficial use of dredged material for activities such as beach nourishment, marsh restoration or other beneficial purposes is encouraged as long as the design of the project

minimizes impacts on highly migratory species EFH (HMS EFH). In addition, unconfined disposal of contaminated dredge material should not be permitted in HMS EFH. The project plans already include several best management practices that are consistent with the general recommendations made by our HMS program, and contaminated materials will not be placed within the NODS or DNODS.

Chesapeake Bay is considered to be the largest nursery area for sandbar sharks in the western Atlantic (Grubbs et al. 2007). Sandbar shark HAPC has been defined as areas within the lower Chesapeake Bay in water temperatures ranging from 15 to 30 °C; salinities between 15 to 35 ppt; and water depths ranging from 0.8 to 23 meters in sand and mud habitats. The principal nursery in Chesapeake Bay is limited to the southeastern portion of the estuary, where salinity is greater than 20.5 ppt and depth is greater than 5.5 m (Grubbs and Musick 2007).

In the EFH assessment it states that sandbar sharks prefer nursery areas near the outer mouth of the York River for a variety of reasons including water quality. As a result, you predict that sandbar shark HAPC would not be affected by project implementation. We do not concur with this conclusion. The HAPC is defined thought the project area and the dredging and overboard disposal actions will have an adverse effect on the HAPC due to the impacts to water quality during construction. It is also not clear what source was used to identify the outer mouth of the York River as the preferred pupping and nursery area within the bay. We do agree that studies suggest that sandbar shark pupping does not occur throughout the entire HAPC.

Young sandbar shark in the Chesapeake Bay are thought to be particularly susceptible to fishing and non-fishing impacts due to the aggregative behaviors undertaken while in nursery areas (Grubbs et al. 2007). As a result, we recommend that dredging and overboard placement of dredged materials do not occur within sandbar shark HAPC during the pupping and nursery season from May 1 to October 30 of any year. This seasonal restriction may be warranted in some sections of the Thimble Shoals Channel. We will work with your staff as project plans progress to further evaluate the need for this seasonal restriction, where it is necessary employ the restriction to minimize impacts to sandbar shark pupping, and the most appropriate timing of the restriction should it be required.

In the EFH assessment, a number of best management practices (BMPs) have been identified to minimize disturbances to the environment. These measures include not beginning the agitation and operation of a cutterhead dredge until the cutterhead is in immediate contact with the substrate. A similar measure would be taken for hopper dredges where dredging would not begin until the draghead is in direct contact with the substrate. We agree that for both types of hydraulic dredges, these measures reduce the intake of water and sediment and the potential uptake and entrainment of eggs and larvae as well as juvenile and adult fish.

We also understand that testing of sediment for texture (percent sand, silt and clay) and contaminants as required by U.S. Environmental Protection Agency (EPA) and the Corps to determine their suitability for overboard disposal (NODS, DNODS or beneficial use) and/or disposal at CIDMMA will occur during the Preconstruction, Engineering and Design Phase of the project. Based upon the results of testing, other BMPs, such as the use of an environmental bucket (closed clamshell) dredge, limiting the lift speed on mechanical dredging equipment,

additional settling of sediment in return flow water, and sealed barges or upland disposal should be employed as appropriate to minimize the release of contaminated sediments back into the water column and to reduce adverse effects to EFH.

In our previous letter, we encouraged the beneficial use of suitable dredged material provided the habitat conversion and ecological tradeoffs result in a net benefit to the aquatic ecosystem, particularly our trust resources. We understand that the preferred alternative includes the continued use of the CIDMMA, DNODS, and NODS and that any beneficial use of suitable sediments dredged during the various elements of this project would be coordinated separately as a stand-alone project. We acknowledge challenges exist when evaluating beneficial options against the Federal Standard which is defined in your regulations as the least costly dredged material disposal or placement alternative (or alternatives) that are consistent with sound engineering practices and meet all federal environmental requirements, including those established under the Clean Water Act (CWA) and the Marine Protection, Research, and Sanctuaries Act (MPRSA). However, the value of the beneficial use of dredged material is recognized at all levels by both of our agencies and it should remain a potential option as this project moves forward. We will work with your staff to evaluate potential beneficial use options as they are identified.

Essential Fish Habitat Conservation Recommendations

As stated in our previous letter, we cannot concur with your conclusion that the implementation of the preferred alternative will result in negligible to minor adverse impacts to EFH and managed species. There continues to be a number of potential adverse effects that were not addressed in the revised EFH assessment. Some other effects were addressed in broad terms due to the scope of the project and the level of detail on the construction methods and habitat conditions currently available. This lack of specific information hampers our ability to provide targeted, site specific EFH conservation recommendations at this stage of project development. We also note that an impact does not necessarily need to affect a designated species at the population level before it can be considered a substantial effect or before EFH conservation recommendations can be issued to minimize the effects. In addition, some effects may be more than negligible and require thorough examination, though measures to avoid, minimize or offset them may not be possible.

We are prepared to provide you with EFH conservation recommendations to avoid and minimize adverse effects to EFH and managed species. However, at this stage of the project, our EFH conservation recommendations follow the precautionary principal for resource protection and are quite broad in nature. We will work with you and your staff as the boundaries of each contract area are defined and information on sediment types, equipment to be used, and construction timing for each contract area is developed to refine and focus these recommendations. We will also work with you to identify potential information needs and studies that can help to refine the timing and location of some of the seasonal restrictions that we have included as EFH conservation recommendations. We are also interested in reviewing the beneficial use of suitable sediments.

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

- Avoid dredging and disposal of dredged material within the blue crab sanctuary area from October 15 to March 31 of any year;
- Avoid dredging within the Newport News and Norfolk Harbor Entrance Channel sections of the project, including Anchorage F from February 15 to June 30 of any year to minimize adverse effects to migrating anadromous fishes;
- Avoid dredging or overboard placement of dredged materials within areas of the sandbar shark HAPC used for pupping and nursery activities from May 1 to October 30 of any year;
- During the Preconstruction, Engineering and Design Phase of the project, sample benthic organisms, especially shellfish and blue crabs, which are prey species for federally managed fish, and coordinate with us on options to avoid, minimize and offset unavoidable adverse effects;
- Use appropriate BMPs (environmental bucket, reduced lift rates, sealed scows, etc.) as appropriate to minimize impacts to water quality and the release of contaminated sediments during construction;
- Beneficially reuse dredged material when environmentally preferable and practicable;
- Continue to coordinate with us during the Preconstruction, Engineering and Design Phase of the project.


Section 305(b)(4)(B) of the MSA requires you provide us with a detailed written response to our EFH conservation recommendations, including a description of measures adopted by the Corps for avoiding, mitigating, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, you must explain your reasons for not following the recommendations, including the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k). In addition, if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations the EFH consultation must be reinitiated pursuant to 50 CFR 600.920(l). The changes to EFH designations, the identification of new EFH or HAPCs also trigger the need to reinitiate consultation.

Endangered Species Act (ESA)

Federally threatened or endangered species under our jurisdiction may be present in the project area. We also note that the EFH assessment provided to us includes a discussion of Atlantic sturgeon and shortnose sturgeon. These species are listed under the ESA, not the MSA. Formal consultation with our Protected Resources Division under Section 7 of the ESA is ongoing and will be completed in the near future. Should you have any questions about the Section 7 consultation process, please contact Brian Hopper at (410) 573-4592 or by e-mail (brian.d.hopper@noaa.gov).

We look forward to continued coordination with your office on this project as it moves forward into the Preconstruction, Engineering and Design Phase. We will work with you to identify additional studies that may help to refine the timing and location of the seasonal work restrictions, as well as options for sequencing activities to allow the project to move forward efficiently while protecting EFH and other aquatic resources under our jurisdiction. If you have any questions or need additional information, please do not hesitate to contact David O'Brien in our Gloucester Point, VA field office at 804-684-7828 (david.l.o'brien@noaa.gov).

Sincerely,

Handwritten signature of Karen M. Greene in cursive script.

Louis A. Chiarella
Assistant Regional Administrator
Habitat Conservation Division

cc: A. Logalbo, M. Ryan, NAO Corps
M. Murry Brown, B. Hopper – GARFO PRD
S. Ellis – GARFO SED
J. Cudney – NMFS HMS
C. Moore – MAFMC
T. Nies – NEFMC
L. Havel - ASMFC

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New England Fishery Management Council

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John F. Quinn, J.D., Ph.D., *Chairman* | Thomas A. Nies, *Executive Director*

June 18, 2018

Dr. Jonathan Hare
Science and Research Director
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

Dear Jon:

At the June Council meeting in Portland, the Council discussed a framework action that may designate exemption areas for clam dredge vessels in the recently implemented Great South Channel Habitat Management Area (April 2018). The Council passed the following motion:

The Council requests that the Northeast Fisheries Science Center investigate the feasibility of side scan sonar surveys in any exemption areas designated under this framework.

The motion carried on a show of hands (16/0/1).

The purpose of developing more detailed maps for sections of the habitat management area is to better understand the relationship between clam dredge fishing effort and habitat type. Per the Council's request, I would appreciate the Northeast Fisheries Science Center's input on the feasibility of conducting such studies. I understand your staff have already been in contact with my staff about this issue and look forward to further collaboration on this topic. Please contact Michelle Bachman (mbachman@nefmc.org, 978-465-0492 x 120) with any specific questions.

Sincerely,

Thomas A. Nies
Executive Director

