

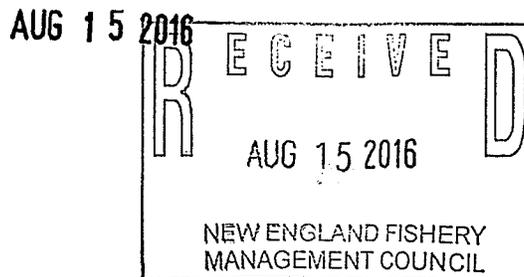
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EFH CONSULTATIONS  
CORRESPONDENCE



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

Lt. Colonel Michael Bliss  
District Engineer  
Philadelphia District  
U.S. Army Corps of Engineers  
Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107-3390



RE: Borough of Avalon, CENAP-OP-R-2013-0179

Dear Lt. Col. Bliss:

We have reviewed above referenced public notice dated July 13, 2016. The notice describes an application by the Borough of Avalon for the permanent maintenance of an access road across tidal wetlands from Avalon Blvd. to Avalon's Macchia's Island (also called Graven's Island) confined disposal facility (CDF) along Graven's Thorofare in Middle Township, Cape May County, New Jersey. The access road was originally authorized on September 6, 2013, as a temporary road under Nationwide Permits (NWP) 16 and 33. These two NWPs allowed:

- the placement of fill in 2.17 acres of tidal wetlands for the construction of a 2156 linear foot, temporary access road;
- the placement of a 110 foot long outfall pipe across tidal wetlands from the CDF to the adjacent waterway;
- matted construction access across wetlands from the waterway to the CDF; and
- the release of return water discharge from the CDF into Graven's Thorofare.

The approval of these NWPs was conditioned to require the removal of the fill and other structures from within the wetlands and waters of the United States no later than February 8, 2015 with final restoration of site to be completed no later than May 22, 2015. At the time, the stated purpose of the temporary access road was to empty the contents of the CDF to reclaim disposal capacity prior to the 2014 commencement of the Avalon's borough-wide back bay dredging project. Despite our recommendations and the recommendation of the U.S. Fish and Wildlife Service, compensatory mitigation was not required because of the temporary nature of the fill and the requirement to restore the site to preconstruction conditions. We also note that crossing of four tidal streams received advanced approval from the U. S. Coast Guard because the crossing were temporary.

According to the supplemental material provided, the removal of the materials from the CDF was completed in 2014, but the road and associated fill was not removed. Several modifications were then granted to allow the temporary road to remain in place for an additional 13 months and to decrease the amount of fill from 2.17 acres to 2.035 acres. To date, the fill remains in place



despite requirement of the modified authorizations to have the fill removed and the site restored by June 16, 2016.

Avalon is now requesting a Department of the Army permit to maintain the temporary access road and associated wetlands fill in perpetuity. They are also requesting approval to increase the amount of fill authorized back up to 2.17 acres and to further modify the CDF to create a ramp in order for vehicles to cross the CDF berm. As compensatory mitigation the applicant has proposed to purchase 2.2 credits from an approved mitigation bank.

According to the information provided, the extension of the deadline to remove the temporary fill and delay in the restoration of the impacted wetlands was in response to requests from the New Jersey Department of Transportation and the US Army Corps of Engineers (Corps) to use the disposal site for state and federal navigation projects. The use of the CDF by these entities is not consistent with the applicant's originally stated project purpose to empty the CDF to create capacity for its own project. It has also altered the basis for the evaluation of the project's direct, indirect, individual and cumulative effects to aquatic habitat and essential fish habitat (EFH), as well as, the range of the potential alternatives that should have been considered because the scope of the project has been expanded from a local project to a regional one.

We have been involved with this project and Avalon's associated back bay dredging project which was authorized under a separate permit (2007-486) for many years and we have attended a number of interagency meetings on both projects. Despite this long-standing coordination, we were unaware that the reasons for granting several extensions to the time limit to restore the site were based on the needs of the Corps and the state and not Avalon for its stated project purpose. We have repeatedly recommended against allowing the road to remain beyond its original removal deadline and have recommended that compensatory mitigation be required for the temporal loss of habitat and wetland functions. We did not request that the District Engineer take discretionary authority and require an individual permit for this activity or seek higher level review of your decision to issue the NWP's and subsequent modifications as permitted under the provisions of our EFH final rule because, to our knowledge, the road was to only be used to empty the CDF once for Avalon's project and additional time was needed by the Borough to complete the work

We have significant concerns about the current proposal to convert the temporary road to a permanent one. These concerns include the direct, indirect, individual and cumulative effects to wetlands, aquatic resources and EFH that has resulted from the road construction and associated dredging projects; the lack of compensatory mitigation for the direct loss of wetlands, as well as the temporal loss of the aquatic resources functions; the lack of a full and complete analysis of alternatives based upon the use of the site as a regional dredged material disposal facility; and the lack of an EFH assessment. As a result, based upon the information available to us, we must conclude that the proposed project will have a substantial and unacceptable impact on aquatic resources of national importance pursuant to Part IV, Paragraph 3(b) of the Memorandum of Agreement (MOA) between our agencies, and we recommend that the permit to allow the temporary road to remain permanently be denied and that alternate locations for regional dredged material disposal be pursued.

### **Aquatic Resources and Compensatory Mitigation**

Estuarine wetlands provide nursery and forage habitat for a variety of aquatic species including alewife (*Alosa pseudoharengus*), Atlantic croaker (*Micropogonias undulatus*), Atlantic menhaden (*Brevoortia tyrannus*), spot (*Leiostomus xanthurus*), and striped bass (*Morone saxatilis*), as well as federally managed bluefish (*Pomatomus saltatrix*) and summer flounder (*Paralichthys dentatus*). Important forage species such as mummichog (*Fundulus heteroclitus*), Atlantic silverside (*Menidia menidia*), inland silverside (*Menidia beryllina*), striped killifish (*Fundulus majalis*) and bay anchovy (*Anchoa mitchilli*) also use these areas. Mummichog, killifish, anchovies and other small fish and benthic organisms found in estuarine wetlands provide a valuable food source for many of the commercially and recreationally valuable species mentioned above including striped bass, summer flounder, weakfish (*Cynoscion regalis*), red hake (*Urophycis chuss*), scup (*Stenotomus chrysops*) and windowpane flounder (*Scophthalmus aquosus*).

Wetlands also provide many other important ecological functions and services to society including fish and wildlife habitat, food chain support, surface water retention or detention, groundwater recharge, and nutrient transformation, sediment retention and atmospheric equilibrium. The primary production in wetlands forms the base of the food web that supports insects and forage fish that are then prey species for larger fish such as bluefish, summer flounder and other species found in marsh creeks. The water quality services provided by these wetlands retain nutrients, sediments and contaminants and improve water quality, therefore the proposed modification could adversely affect the habitat and water quality of the surrounding waterways by eliminating tidal wetlands that export nutrients and filter runoff from upland sources. Wetlands may also help to moderate global climate change through carbon storage within the plant communities and soil. The loss of wetlands as a result of this project can adversely affect federally managed species and other species of concern to us through the reduction in prey species and primary production, as well as water quality degradation from the reduction in sediment retention and pollution filtration.

Approximately 2.035 acres of wetlands have been lost since 2013. This fill was originally to have been removed within approximately 18 months from project authorization with full restoration in 20 months. Because the fill was to be temporary, your office did not require compensatory mitigation for the temporal loss of aquatic habitat and aquatic resource functions. The proposed compensatory mitigation does not adequately offset the loss of aquatic resource functions and fish habitat over the more than 30 months the “temporary” road has been in place. The proposed 2.2 acre credit purchase at a mitigation bank equates to a 1:1 ratio of impacts to mitigation that would typically be used when the credits are purchased prior to or concurrent with the impacts. A higher ratio is warranted when the compensatory mitigation occurs several years after the impacts to offset the temporal loss of functions and habitat. In addition, Avalon has not provided any documentation that the project site is located within the service area of a federally approved wetland mitigation bank, and that the bank has credits available for purchase. Finally, and more importantly, Avalon has not demonstrated that they have avoided and minimized impacts to aquatic resources and that alternatives do not exist that would have less impact on the aquatic environment.

### **Project Purpose and Alternatives**

As mentioned above, the Avalon’s originally stated project purpose was to construct the

temporary road to empty the CDF so it would have capacity for a specific dredging project that is being undertaken by the Borough. It was not presented as a solution to the long-term regional dredged material disposal needs. Since it now appears that the CDF will be used by a number of different entities, the range of alternatives to be considered should be expanded to more fully consider the regional scope of the project. In addition, the project purpose as stated in the current public notice is to “maintain the road in perpetuity to allow for heavy equipment access for the removal of materials from the CDF and for pre-dredging preparation of the CDF.” This project purpose is overly restrictive and artificially limits the range of alternatives that should be evaluated as dredged material disposal options for materials generated by Avalon and others.

A brief alternatives analysis was provided to us by the Corps. However, the basis for this analysis is flawed because the basic and overall purpose is to maintain the road and use the existing CDF and not to evaluate options for dredged material disposal. On numerous occasions, we have recommended that Avalon relocate the CDF closer to Avalon Blvd. for direct access to the main roadway and greater ease in removing materials from the site. Other agencies have also recommended this option. In the alternatives analysis, Avalon dismisses this potential option because it would result in filling wetlands adjacent to Avalon Blvd., lack of industrial uses along the road, and the need to gain approval from Cape May County to access Avalon Blvd. None of these issues are insurmountable. The current access road to the CDF connects to Avalon Blvd., so it appears that the County does not prohibit the construction of new access points onto the county road. It is not demonstrated in the alternatives analysis that a CDF would require industrial use zoning or that a variance or change in the existing zone could not be obtained. Finally, according to the information in the alternatives analysis a new CDF constructed along Avalon Blvd. would require eight acres wetland fill. The existing CDF currently occupies 13.5 acres, so the relocation of the CDF and the restoration of the existing one would result in a net increase in 5.5 acres of tidal wetlands and the removal of the access road would restore another two acres of wetlands. In addition, this option would be easier and less expensive to maintain and empty as it is adjacent to a major road and would not require repairs to a half-mile access road prior to each use.

Alternate methods of access to the CDF, particularly water access via barge were also not explored fully in the alternatives as analysis. The use of dredged material for habitat restoration was also dismissed without adequate explanation. Based upon the information provided, it appears that alternatives exist that would allow for dredged material disposal in an economically viable and less environmentally damaging manner. These options should be pursued rather than allowing two acres of wetland fill to remain in place.

#### **Magunson Stevens Fishery Management and Conservation Act (MSA)**

The wetlands and open waters around the project site have been designated EFH for a number of federally managed species including windowpane flounder, bluefish, Atlantic butterflyfish (*Peprilus triacanthus*), summer flounder, scup, black sea bass (*Centropristis striata*), king mackerel (*Scomberomorus cavalla*), Spanish mackerel (*Scomberomorus maculatus*), and cobia (*Rachycentron canadum*). An EFH assessment was not provided to us that addresses the direct, indirect, individual and cumulative effects of allowing the temporary road to be maintained in perpetuity. Additionally, there is no record of an EFH assessment being provided

to us as part of a pre-construction notice for the issuance of the NWP's. As a result, our comments and recommendations are based upon the information provided in the public notice.

The EFH final rule published in the Federal Register on January 17, 2002 defines an adverse effect as: "any impact which reduces the quality and/or quantity of EFH." The rule further states an adverse effect may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat and other ecosystems components.

Adverse effects to EFH may result from action occurring within EFH or outside EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The rule also states that the loss of prey may be an adverse effect on EFH and managed species because the presence of prey makes waters and substrate function as feeding habitat and the definition of EFH includes waters and substrate necessary to fish for feeding. Therefore, actions that reduce the availability of a major prey species, either through direct harm or capture, or through adverse impacts to the prey species' habitat may be considered adverse effects on EFH if such actions reduce the quality of EFH.

The proposed project would adversely affect EFH for summer flounder and bluefish by filling tidal wetlands and affecting prey species adversely. Tidal wetlands are essential for healthy fisheries, coastlines, and communities and they are an integral part of our economy and culture. Wetlands also provide essential food, refuge, or nursery habitat for federally managed and other NOAA trust species, including blue crab (*Callinectes sapidus*), striped bass, and alewife and blueback herring.

#### **Essential Fish Habitat Conservation Recommendation**

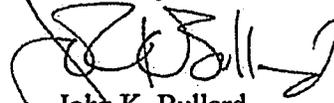
Because the proposed project would have adverse effects to EFH by filling tidal wetlands, pursuant to Section 305(b) (4) (A) of the MSA, we recommend the following:

- the permit for the proposed project not be issued;
- the temporary access road fill be removed and the wetlands restored to preconstruction conditions with appropriate monitoring to ensure successful restoration is achieved; and
- alternate dredged material disposal options such as the relocation of the existing CDF be pursued.

Section 305(b)(4)(B) of the MSA requires you provide us with a detailed written response to our EFH conservation recommendation, 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).

Because of the project's adverse impacts to EFH, the lack of compensatory mitigation for the temporal loss of aquatic habitat functions, failure to avoid and minimize impacts to aquatic resources and the availability of less environmentally damaging alternatives, such as the relocation of the CDF, we must conclude that the proposed project will have a substantial and unacceptable impact on aquatic resources of national importance pursuant to Part IV, 3(b) of the MOA between our agencies. As always, we hope that our concerns can be addressed at the District level and that we will not need to seek higher level review should you issue a permit over our objections or that is inconsistent with our EFH conservation recommendations. We will continue to coordinate with your staff on this matter and will be available to attend interagency meetings to resolve our outstanding concerns as needed. If you have any questions or need additional information on this matter, please contact Karen Greene at (732) 872-3023.

Sincerely,



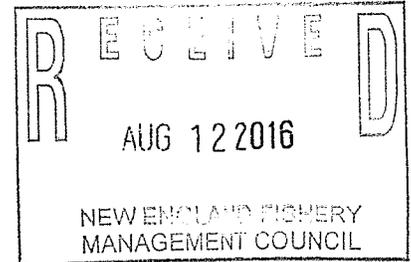
John K. Bullard  
Regional Administrator

cc: Corps – E. Bonner, Regulatory  
PRD – D. Marrone  
FWS – S. Mars  
EPA – Region II, D. Montella  
MAFMC  
NEFMC



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AUG 12 2016



Ms. Regina Lyons  
Manager, Ocean and Coastal Protection Unit  
US EPA, Region 1  
Five Post Office Square, Suite 100  
Boston, MA 02109-3912

**RE: Essential Fish Habitat consultation for Eastern Long Island Sound Dredged Material Disposal Site**

Dear Ms. Lyons:

We have reviewed your request for Essential Fish Habitat (EFH) consultation for the Eastern Long Island Sound Dredged Material Disposal Site (ELDS) and revised Effects Analysis for EFH. We concur with your determination that by excluding the boulder areas located in the south and northwest corners of the proposed disposal site, and with the incorporation of your specific management practices that include a 200 foot buffer zone from the boulder areas, the proposed designation will result in no more than minimal adverse impacts to designated EFH.

If you have questions or need additional information, please contact Alison Verkade ([alison.verkade@noaa.gov](mailto:alison.verkade@noaa.gov)/ 978-281-9266) in the Habitat Conservation Division.

Sincerely,

Christopher Boelke  
New England Field Office Supervisor  
For Habitat Conservation

cc: Jean Brochi, EPA  
Zach Jylkka, PRD  
Tom Nies, NEFMC  
Chris Moore, MAFMC  
Lisa Havel, ASMFC

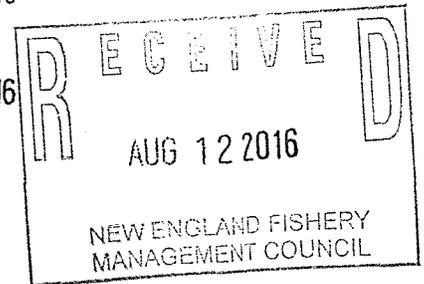




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Mr. Robert J. DeSista  
Chief, Permits and Enforcement Branch  
U.S. Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742-2751

AUG 12 2016



**Re: SKR Partners, LLC - NAE-2014-151, North Cove, Essex, Connecticut**

Dear Mr. DeSista:

We have reviewed your Public Notice (NAE-2014-151) for SKR Partners to construct and maintain a new boating facility with seven slips within North Cove in Essex, Connecticut. The proposed work includes installing a 5.25' x 56' pier with a 5' x 36' ramp, an 85 square foot (SF) landing pier, a 6.25' x 90' main pier with open grate decking, and four (4) 4.25' x 30' batter braced pile supported finger piers with open grate decking and associated ladders. The project will impact approximately 1,452 square feet of essential fish habitat (EFH) and is located within a submerged aquatic vegetation (SAV) bed. No mitigation for impacted resources is proposed.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act (FWCA) requires federal agencies to consult with one another on projects such as this. Insofar as a project involves EFH, as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.920, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure. Unfortunately, our ability to assess potential impacts to EFH and associated marine resources is being complicated by a lack of information. Specifically, you have not provided us with a complete EFH Assessment as is required pursuant to 50 CFR 600.920.

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) your conclusions regarding the effects of the action on EFH; and 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 4) an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH.

Because we are unable to fully assess the potential impacts to our trust resources within the project area and consequently develop appropriate conservation recommendations for the project, we seek to extend both the comment period pursuant to Part II, Paragraph 4 of our Section 404 interagency Memorandum of Agreement (MOA), as well as the consultation process pursuant to 50 CFR 600.920(i)(5) so that you may provide us with better information for the



development of EFH conservation recommendations. Details regarding the concerns we have with the lack of information are provided below.

### **EFH Resource Concerns**

A total of 13 managed fish species have designated EFH in the project vicinity and may be adversely impacted by the proposed boating facility, including summer flounder, winter flounder, black sea bass, and scup. These species are common in mixed salinity zone, shallow water habitats with submerged aquatic vegetation and have specific habitat requirements at various life stages that may be adversely and permanently impacted by the proposed project (Stevenson et al. 2014). Of particular concern is the potential for substantial adverse impacts to the existing SAV bed within the proposed docking pier and boat berths. Adverse impacts to the SAV beds may occur through permanent loss as a result of the proposed battered pile installation, and through direct and indirect impacts resulting from the proposed pier structure and vessel operations.

Submerged aquatic vegetation beds provide productive habitat for a number of living estuarine resources. Vegetated shallows have been designated as a “Special Aquatic Site” by the US Environmental Protection Agency under Section 404(b)(1) of the Federal Clean Water Act, due to its important role within the ecosystem. The Mid-Atlantic Fishery Management Council has designated areas of SAV, when associated with EFH for juvenile and adult summer flounder, as a Habitat Area of Particular Concern (HAPC) under Amendment 13 of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. The proposed pier is located within juvenile summer flounder designated EFH, therefore it meets the HAPC designation:

*“All native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH is HAPC.”*

The Connecticut River also supports multiple diadromous species, including alewife and blueback herring, which use the river for passage to spawning locations. Alewife have been reported to spawn within Hamburg Cove, just upstream from the project location. Alewife are known to utilize a variety of habitats including SAV for spawning (Bigelow and Schroeder 2002; Cooper 1961; Loesch and Lund 1977; O'Neill 1980). Optimal spawning, egg and larval development habitats include predominantly soft sediments habitats containing SAV (O'Connell and Angermeier 1997; Pardue 1983). As discussed above, we believe the proposed boating facility will result in adverse impacts to the existing SAV bed. Diadromous fish species serve as prey for managed fish species and therefore are considered a component of EFH. Potential impacts to alewife spawning habitat and migration that may result from adverse impacts to SAV should be evaluated and included in the EFH assessment.

### **Additional Information Needs**

As currently proposed, the docking pier, berthing piers and battered piles are all located within the existing SAV bed. The structures are proposed to be located just beyond the mean low water (MLW) line with approximately one foot, or less, of water depth relative to MLW along the main berthing pier and boat slips. The bottom-most section of the proposed fixed piers to be near coincident with the high tide line, creating a separation of approximately five feet or less between the pier and substrate surface. Such a configuration would result in direct (e.g. loss resulting from installation of battered piles, vessel grounding, prop-washing, and potential

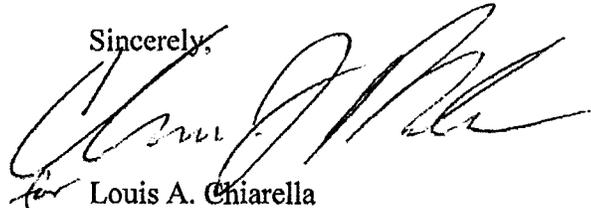
release of debris from icing damage to the pier) and indirect impacts (e.g. shading and turbidity). All direct and indirect impacts that may occur to the existing SAV bed from the proposed configuration should be evaluated and included in the EFH assessment. Alternatives to the proposed configuration that would avoid (e.g. utilizing a nearby marina), and minimize (e.g. minimizing the number of berths, increasing the height of the docking and berthing piers, minimizing pier widths, installing boat lifts, utilizing helical piles) adverse impacts to the existing SAV bed should be evaluated and assessed.

The applicant proposes to utilize open grate decking, however the effectiveness of such decking in minimizing shading impacts to SAV has not been well documented. Information on the effectiveness of the proposed open grate decking should be provided. The information should include scientific, peer-reviewed literature with an evaluation of how the site-specific conditions and proposed configuration (e.g. height over the substrate) will achieve adequate light penetration to avoid adverse shading impacts to the SAV bed.

### **Conclusions**

In summary, based on a lack of a complete EFH assessment, we seek to extend both the comment period pursuant to Part II, Paragraph 4 of our MOA, as well as the consultation process pursuant to 50 CFR 600.920(i)(5), so you may provide us with better information for the development of EFH conservation recommendations. Upon receipt of a complete EFH assessment, we will require 30 days to review the assessment and develop EFH consultation recommendations. If you have any questions regarding the EFH consultation process, please contact Alison Verkade at 978-281-9266.

Sincerely,



Louis A. Chiarella  
Assistant Regional Administrator  
For Habitat Conservation

cc: Lindsay Flieger, ACOE  
Zach Jylkka, PRD  
Sue Bailey, OLISP  
Tom Nies, NEFMC  
Chris Moore, MAFMC  
Lisa Havel, ASMFC

## References

Bigelow, H.B. and Schroeder, W.C. 2002. Fishes of the Gulf of Maine. Edited by BC Collette and G. Klein-MacPhee.

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Loesch, J. G. and Lund, W. A. 1977. A contribution to the life history of the blueback herring. Transactions of American Fisheries Society 106: 583-589.

O'Connell, A.M. and Angermeier, P.L. 1997. Spawning location and distribution of early life stages of alewife and blueback herring in a Virginia stream. Estuaries 20: 779.

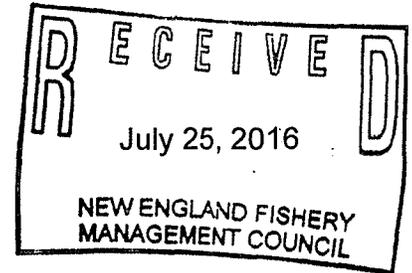
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Stevenson, D.K., Tuxbury, S., Johnson, M.R., and Boelke, C. 2014. Shallow Water Benthic Habitats in the Gulf of Maine: A Summary of Habitat Use by Common Fish and Shellfish Species in the Gulf of Maine. Greater Atlantic Region Policy Series 14-01. NOAA Fisheries Greater Atlantic Regional Fisheries Office. 77pp.



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JUL 25 2016



Ms. Barbara Newman  
Chief, Permits and Enforcement Branch  
Regulatory Division  
U.S. Army Corps of Engineers  
696 Virginia Road  
Concord, MA 01742-2751

**Re: Town of Chatham, NAE-2011-488, Permit Modification for Comprehensive dredging and disposal**

Dear Ms. Newman:

We have reviewed the Public Notice (NAE-2011-488), dated April 19, 2016, for modification of an existing authorization for dredging and discharge of dredged material below the high tide line in the Town of Chatham, Massachusetts. The existing authorization was issued on January 31, 2014. The proposed modification includes the dredging of two additional waterway sites and disposal of dredge material at four additional disposal sites. One of the proposed dredge sites is considered maintenance dredging, and one is new dredging. A portion of one of the proposed dredge sites was previously authorized under the original permit. The proposed permit modification would increase the number of dredging sites from seven to nine, impacting an additional 311 acres of essential fish habitat (EFH). Two of the dredge sites are also federal navigation projects (FNP) maintained by your agency. The proposed addition and modification to the four disposal sites would increase the number of beach nourishment sites from fourteen to sixteen and increase the number of nearshore sites from three to four, impacting an additional 11 acres of EFH. Dredging would be performed by both mechanical and hydraulic means. The proposed permit would be valid for 10 years. The purpose of the proposed permit modification is to expand the Town's dredging and disposal activities into other areas that have become a priority since approval of the original project. No compensatory mitigation is proposed for impacts to EFH.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act (FWCA) require federal agencies to consult with one another on projects such as this. Insofar as a project involves essential fish habitat (EFH), as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.920, which mandates the preparation of EFH assessments and generally outlines your agency's obligations in this consultation procedure. We previously consulted with you on the original project, and provided you with our EFH conservation recommendations in a letter dated August 16, 2013. We continued coordination with you to successfully incorporate our EFH conservation recommendations into the final project authorization as special conditions of the permit. We offer the following comments and recommendations on the proposed project modification pursuant to the above referenced regulatory processes.



mb 8/11/16

### **General Comments**

As discussed in our August 16, 2013 letter, the waters off Chatham, Massachusetts provide valuable habitat for a number of species with designated EFH. Resources located in the project area include eelgrass, shellfish and winter flounder spawning habitat. These resources are located both within and adjacent to some of the sites incorporated in the original and proposed modified comprehensive dredging and disposal project. Based on the project as proposed and the information provided, impacts to eelgrass habitat may occur.

Eelgrass is known to play a critical ecosystem role. Highly valued as a refuge, nursery ground and food resource for a number of commercially important fin and shellfish (Thayer *et al.* 1984, Kenworthy *et al.* 1988), eelgrass also stabilize sediments by buffering the erosive force of waves and currents (Fonseca and Cahalan 1992). In many locations along the east coast, eelgrass coverage has declined by fifty percent or more since the 1970's (Thayer *et al.* 1975, Short 1993 *et al.* and 1996). In Massachusetts, eelgrass is also in significant decline, particularly on the south coast, Cape Cod and Buzzards Bay. These widespread losses may exacerbate the problem as fewer beds are available to provide new recruits to help sustain the populations (Costello and Kenworthy 2011). Loss of eelgrass is attributed to reduced water quality and clarity resulting from elevated inputs of nutrients or other pollutants such as suspended solids and disturbances such as dredging (Kemp *et al.* 1983, Short *et al.* 1996, Short and Burdick 1996, Orth *et al.* 2006). Studies have confirmed that seagrasses are highly vulnerable to changes in sediment levels. Eelgrass was shown to have a 50% mortality level with a burial of 4 cm of sediment (Cabaco *et al.* 2008). With such a low tolerance for sedimentation, indirect effects of post-disturbance processes can also greatly affect seagrasses (Cabaco *et al.* 2008). Given the widespread decline in eelgrass beds, any additional loss to this habitat can significantly affect the resources that depend on these meadows.

The U.S. Environmental Protection Agency has designated submerged aquatic vegetation including eelgrass beds as "special aquatic sites" under the Section 404(b)(1) of the federal Clean Water Act, due to their important role in the marine ecosystem for spawning, nursery cover and forage areas for fish and wildlife. Furthermore, the Mid-Atlantic Fishery Management Council has designated eelgrass as a Habitat Area of Particular Concern when associated with summer flounder EFH. Impacts to eelgrass beds from dredging and disposal include direct impacts through physical removal and indirect impacts of sedimentation. Due to the close proximity of the eelgrass beds to some of the proposed dredging and disposal sites, significant impacts to eelgrass may occur.

### *Dredging Sites*

Based on information provided in an early coordination meeting on September 4, 2014, the recent breach of the barrier beach along Pleasant Bay has created a highly dynamic shoaling environment within Pleasant Bay and the eelgrass beds within the proposed dredge footprint are highly transient. The applicant's letter and updated EFH assessment dated June 17, 2016, indicate that the Town does not propose any dredging or disposal within known eelgrass beds. The most recent survey completed by the Provincetown Center for Coastal Studies for the applicant in 2013 identified eelgrass within the proposed Pleasant Bay dredge site. However, the applicant does not propose to dredge the entire footprint of the Pleasant Bay dredge footprint at any one time. Dredging activities within the proposed Pleasant Bay footprint will be conducted in a manner that maintains a navigation channel within the proposed footprint where the highly dynamic sand has created a natural depression. Similar to the special conditions that were incorporated into the original permit authorization for dredging operations within the Morris Island Cut, the applicant proposes to incorporate a low tide

visual eelgrass survey prior to dredging within Pleasant Bay. If the visual survey identifies eelgrass within a 100 foot buffer of the dredge footprint, a detailed survey would be performed to verify and map the eelgrass and further coordination would be conducted prior to dredging within 100 feet of the identified eelgrass beds. The proposed methodology is sufficient to avoid adverse impacts to eelgrass.

#### *Nearshore Disposal and Beach Nourishment Sites*

As acknowledged in the EFH assessment, eelgrass has been declining in the project area. To ensure additional adverse impacts to eelgrass resulting from dredge disposal activities are avoided and minimized to the greatest extent possible, it is necessary to ensure the existing eelgrass beds are accurately identified and mapped. In order to fully evaluate the potential for adverse impacts to eelgrass habitat, it is necessary to map the extent of existing beds in relation to the proposed disposal sites. The newly proposed nearshore disposal area was surveyed in 2015, and no eelgrass was identified within the vicinity of the proposed footprint. However, it does not appear that an updated, site-specific survey has been completed for any of the proposed additional or expanded beach nourishment sites. The proposed beach nourishment sites were not surveyed during the 2015 survey, nor were they included within the provided 2013 eelgrass survey.

Eelgrass beds have been mapped in the immediate vicinity of the expanded Scatteree Beach and newly proposed Linnell Lane nourishment sites each year that MassDEP has completed eelgrass surveys in this area. The most recent MassDEP eelgrass survey in the project area was most completed in 2010. The EFH assessment indicates that the MassDEP mapped eelgrass beds are offshore of both of these proposed nourishment sites. However, the MassDEP eelgrass survey for the area was completed six years ago. Eelgrass beds are ephemeral and boundaries can shift from year to year. Further, while the MassDEP eelgrass maps provide a good starting point for determining the potential for eelgrass to occur at a project site, the boundaries of eelgrass beds may not always be detectable in aerial surveys and the accuracy of mapping these boundaries varies, therefore ground-truthing surveys are critical to determine the accurate extent of the bed (Bradley *et al.* 2007). Since the current landward extent of the existing eelgrass beds has not been determined, the potential for adverse impacts from the proposed nourishment footprints cannot be fully evaluated. Site-specific eelgrass surveys should be conducted at Scatteree Beach and Linnell Lane to ensure that the proposed nourishment footprints will not adversely impact existing eelgrass beds, or the proposed footprints should be modified accordingly.

The June 17, 2016 letter and EFH assessment indicates that the Pleasant Street nourishment site has been previously authorized under permit number NAE-2011-01962. The letter indicates that no eelgrass was identified in a site survey was conducted in 2011, or in a visual survey was conducted in 2015 prior to disposal activities. However, a copy of the 2011 survey was not provided and the authorized footprint was not specified. If the currently proposed nourishment footprint extends waterward of the permitted nourishment footprint, an updated site specific survey should be completed.

#### *Winter Flounder*

As discussed during our consultation for the original project, the project area also provides habitat for winter flounder spawning and juvenile development. Winter flounder eggs, once deposited on the substrate, are vulnerable to sedimentation effects in less than 1 mm of sediment. Decreased hatching success of winter flounder eggs is observed when covered in as little as 1 mm of sediment and burial in sediments greater than 2.5 mm may cause no hatch (Berry *et al.* 2011). Elevated turbidity can also

impact fish species through greater utilization of energy, gill tissue damage and mortality. Egg and larval life stages may be more sensitive to suspended sediments, resulting in both lethal and sub-lethal impacts (Newcombe and Jensen 1996). To avoid such impacts, dredging should be suspended during periods when these sensitive life stages are present. The time of year restriction incorporated in to the original permit should also be included in the proposed permit modification.

### **Essential Fish Habitat Conservation Recommendations**

The project area has been designated as EFH under the MSA for more than 30 species including winter flounder, windowpane flounder, summer flounder, yellowtail flounder, scup, Atlantic cod, black sea bass, and surf clam. As described above, the proposed project would have adverse effects on EFH through direct and indirect impacts of dredging and filling subtidal habitats, including eelgrass and winter flounder spawning grounds. We recommend pursuant to Section 305(b)(4)(A) of the MSA that you adopt the following EFH conservation recommendations:

1. A site-specific eelgrass survey should be conducted during the growing season within the proposed footprints, and nearshore vicinity, of the Linnell Lane Beach, Scatteree Landing, and Pleasant Street Private lots nourishment sites. A survey plan and results, as well as a revised disposal footprint(s) should be provided to the resource agencies for review and comment prior to commencement of dredging and disposal operations.
2. In order to minimize adverse impacts to eelgrass and winter flounder EFH, we recommend the special conditions (SC) of the previous permit authorization (attached) be modified to include the additional proposed dredge and disposal sites as follows:
  - a) SC #4 should be updated to include the Pleasant Bay Zone of Potential Dredging;
  - b) SC # 6 should be updated to include Mitchell River;
  - c) SC # 7 should be updated to include Linnell Lane Beach and Pleasant Street Private Lots;
  - d) SC #8 should be updated to include both, Pleasant Bay Zone of Potential Dredging and Mitchell River.

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH conservation recommendations, including a description of measures you adopt for avoiding, mitigating or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that you must explain your reasons for not following the recommendations. Included in such reasoning would be 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).

Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920(l) if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations.

### **Endangered Species Act**

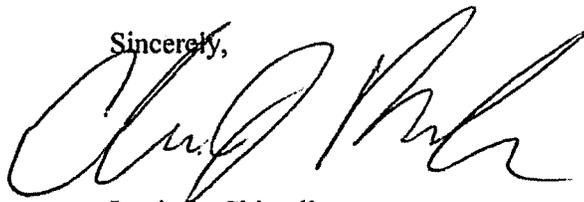
Threatened and endangered species under our jurisdiction may be present in the action area. A consultation pursuant to section 7 of the Endangered Species Act of 1973 is required. Our

Protected Resources Division reviewed your original authorization for this action and in a letter dated June 6, 2013, concurred with your determination that the project was not likely to adversely affect any species listed by us as threatened or endangered under the ESA of 1973. Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; or (c) If a new species is listed or critical habitat designated that may be affected by the identified action. If you have any questions regarding the status of this consultation, please contact Zachary Jylkka at [978-282-8467](tel:978-282-8467) or [zachary.jylkka@noaa.gov](mailto:zachary.jylkka@noaa.gov).

### **Conclusion**

In summary, we recommend the proposed new dredging and disposal sites be subject to the same special conditions as the original permit required for sites with similar resources and impact areas. This will ensure impacts to eelgrass SAS and winter flounder EFH will be minimized to the greatest extent possible. We also recommend an updated site specific eelgrass survey be conducted for the proposed beach nourishment sites and the survey should be conducted during the growing season. We look forward to your response to our EFH Conservation Recommendations on this project. Should you have any questions about our comments, please contact Alison Verkade at [alison.verkade@noaa.gov](mailto:alison.verkade@noaa.gov) or 978-281-9266.

Sincerely,



*for* Louis A. Chiarella  
Assistant Regional Administrator  
for Habitat Conservation

cc: Zack Jylkka, PRD  
Kevin Kotelly, ACOE  
Valerie Capolla, ACOE  
Ed Reiner, USEPA  
John Logan, MA DMF  
Bob Boeri, MA CZM  
Lealdon Langley, MA DEP  
Tom Nies, NEFMC  
Chris Moore, MAFMC  
Lisa Havel, ASMFC

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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

Jennifer McCarthy, Chief  
Regulatory Division  
US Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742

JUL 19 2016

**Re: Programmatic Essential Fish Habitat (EFH) Consultation for New England Region General Permits**

Dear Ms. McCarthy:

We have reviewed your state-wide General Permits (GP) for the New England region. You are in the process of updating each state-wide GP to an activity-based format as the existing GPs are reauthorized. This will essentially continue your GP process, but under a new format.

As you know, we have been working with your office in implementing the GP program for over twenty years. This process has been mutually beneficial; it allowed you to efficiently authorize activities that had minimal impacts, and it allowed us to offer protections to our trust resources. As you continue to refine the GP process going forward, so too will we similarly adjust the format of our EFH consultation process so that it remains aligned. Our mutual goal is to have an EFH consultation process that continues to efficiently address these same minimal impact activities in a way that is both protective and consistent across the New England Region.

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation Management Act (MSA) requires federal action agencies such as the Corps to consult with us for any action they authorize, fund or undertake that may adversely affect EFH. Federal action agencies consult with us through the use of existing environmental review procedures, general concurrence, abbreviated consultation, expanded consultation or programmatic consultation; however, the agency should use the most efficient approach for EFH consultation that is appropriate for a given action. Based on the EFH regulations at 50 CFR Subpart K, 600.920(j), we believe the programmatic consultation is an efficient method for us to consult with each other on a large number of minimal impact projects that you routinely authorize and to develop programmatic conservation recommendations that will address reasonable foreseeable adverse impacts to EFH. Upon a thorough review of the activity-based GPs that will be authorized, we have developed this Programmatic EFH consultation to allow for a more efficient consultation process for projects that are authorized under each GP.

**Essential Fish Habitat Descriptions**

The New England and the Mid-Atlantic Fishery Management Councils (NEFMC and MAFMC, respectively), have designated EFH for multiple federally managed fish and shellfish species occurring in marine, estuarine and riverine waters within the geographical range of the New England District. EFH includes pelagic habitat as well as benthic habitats such as sand, mud, gravel, cobble, hard bottom,



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submerged aquatic vegetation (SAV) and shellfish beds. Structurally complex habitats, including hard bottom/rocky habitats and shellfish beds are productive habitat areas which provide shelter and forage for many of the managed species. In addition, special aquatic sites (SAS) are areas that are afforded additional protection due to their significant contribution to the environment under 404(b)(1) guidelines of the Clean Water Act. SAS includes fish and wildlife sanctuaries and refuges, wetlands, mudflats, SAV and riffles and pool complexes. EFH descriptions for each life stage of managed species in New England are listed at <http://www.greateratlantic.fisheries.noaa.gov/hcd/list.htm>.

#### *Submerged Aquatic Vegetation*

Submerged aquatic vegetation (SAV), such as eelgrass, is known to play a critical ecosystem role. The U.S. Environmental Protection Agency has designated SAV, including eelgrass, as "special aquatic sites" under Section 404(b)(1) of the federal Clean Water Act, due to its important role in the marine ecosystem for nesting, spawning, nursery cover and forage areas for fish and wildlife. Furthermore, the MAFMC has designated submerged aquatic vegetation, including eelgrass as a Habitat Area of Particular Concern (HAPC) for summer flounder EFH. Seagrasses provide important ecological services including fish and shellfish habitat, and shore-bird feeding habitats, nutrient and carbon cycling, sediment stabilization, and biodiversity (Thayer et al 1984, Fonseca and Cahalan 1992, Fonseca *et al.*, 1998, Kenworthy *et al* 1998, Orth *et al.*, 2006). In many locations along the east coast, eelgrass coverage has declined by fifty percent or more since the 1970's (Thayer *et al.* 1975, Short *et al.* 1993, Short and Burdick 1996). Loss of eelgrass is attributed to reduced water quality and clarity resulting from elevated inputs of nutrients or other pollutants such as suspended solids and disturbances such as dredging (Kemp *et al.* 1983, Short *et al.* 1993, Short and Burdick 1996, Orth *et al.* 2006). Eelgrass may also be adversely affected through shading and burial or smothering resulting from turbidity and subsequent sedimentation (Deegan and Buchsbaum 2005, Duarte *et al.* 2005, Johnson *et al.* 2008). In Massachusetts, surveys from 1995 to 2007 have shown statewide declines in seagrass cover in 90% of the embayments where it was studied (Costello and Kentworthy, 2010). In New Hampshire, eelgrass distribution throughout the entire Great Bay Estuary has declined precipitously since 1996, with a loss of 76% in the Great Bay and extirpation of nearly all beds in the Piscataqua River during that time (Short 2013). Given the widespread decline in eelgrass beds in New England, any additional loss to this habitat will significantly affect the resources that depend on these meadows. Successful compensatory mitigation for impacts to SAV can be costly and difficult to implement, making this habitat especially vulnerable to permanent loss.

#### *Salt Marsh and Tidal Wetlands*

Estuarine tidal wetlands are essential for healthy fisheries and coastlines. Salt marshes and tidal creeks provide food, refuge, and nursery habitat for several federally managed species. These systems support multiple forage fish species and invertebrates that serve as prey for commercially and recreationally valuable species (Steimle *et al.* 2000). Salt marshes also protect shorelines from erosion by buffering wave action and trapping sediments. They reduce flooding by absorbing rainwater and protect water quality by filtering runoff and metabolizing excess nutrients. Given the important nature of this habitat, impacts to tidal wetlands will significantly affect a variety of species and habitats.

#### *Intertidal Mudflats*

Mudflats serve as EFH for multiple managed fish species during spawning, juvenile and/or adult life history stages. The U.S. Environmental Protection Agency has designated mudflats as "special aquatic sites" under Section 404(b)(1) of the federal Clean Water Act, due to their important role in the marine

ecosystem for spawning, nursery cover and forage areas for fish and wildlife. Juvenile fish and invertebrates seek shelter in mudflats by burrowing into the soft sediments. Mudflats support distinct benthic communities that provide important prey and foraging habitat for managed fish species (Cargnelli *et al.* 1999; Chang *et al.* 1999; Pereira *et al.* 1999; Stevenson *et al.* 2014). These habitats are particularly vulnerable to disturbances that may result in turbidity or scouring impacts. Compensatory mitigation for impacts to intertidal mudflat habitat can be difficult to implement, making this habitat especially vulnerable to permanent loss.

#### *Hard Bottom Habitat*

Structural complexity of habitats such as gravel, cobble, and boulders provide important functional value for fish as shelter and refuge from predators (Auster 1998; Auster and Langton 1999; NRC 2002; Stevenson *et al.* 2006). The relationship between benthic habitat complexity and demersal fish community diversity has been positively correlated (Malek *et al.* 2010). Multiple managed fish species have life-history stages that are dependent on, or mediated by, hard bottom habitats and attributes (Gotceitas *et al.* 1995, Lindholm *et al.* 1999, Klein-MacPhee 2002, Auster 2001, Auster 2005, Methratta and Link 2006). Hard bottom habitats provide a substrate for epibenthic growth which serves as additional refuge for juvenile fish and has been shown to significantly increase survivorship of juvenile cod (Lindholm *et al.* 1998 and 2001). These complex benthic substrates are vulnerable to disturbances that reduce complexity, particularly due to their extended recovery times (Bradshaw *et al.* 2000, Collie *et al.* 2005, Tamsett *et al.* 2010).

#### *Shellfish Beds*

Shellfish provide an important ecological role through water column filtration, sediment stabilization as well as supplying habitat for multiple fish species (Zimmerman *et al.* 1989, Dames and Libes 1993, Coen *et al.* 1999, Nakamura and Kerciku 2000, Forster and Zettler 2004, Newell 2004, Coen and Grizzle 2007, McDermott *et al.* 2008). Shellfish are also an important food source for federally managed species (Steimle *et al.* 2000). Shellfish are susceptible to elevated levels of suspended sediments which can interfere with spawning success, feeding, and growth for shellfish such as mussels, clams, and oysters (Wilber and Clark 2001). Sessile species and life history stages are highly vulnerable to smothering and activities that may result in dislodgement of recently settled individuals.

#### *Intertidal Habitat*

Intertidal habitats support distinct marine communities and provide important foraging habitats and areas of refuge from predation for juvenile fish during periods of high tide (Helfman *et al.* 2009). Intertidal habitats include salt marsh vegetated habitats, mud and sandflats, in addition to sandy beaches and rocky shorelines. The functional value of these habitats may be adversely impacted by activities that result in increased erosional rates, changes in slope profiles, habitat type conversions, or decreased connectivity with shallow water subtidal habitats.

#### *Shallow Water Habitat*

Shallow water coastal, marine, and estuarine habitats are important for multiple managed fish species for spawning, juvenile and/or adult life history stages (Cargnelli *et al.* 1999, Chang *et al.* 1999, Pereira *et al.* 1999, Stevenson *et al.* 2014). Because of their shallow depths, seasonally warm water temperatures and proximity to nutrients derived from river runoff, these habitats are highly productive (Stevenson *et al.* 2014). Each shallow water habitat type provides EFH for multiple managed fish species. Mud and sand habitat types support distinct benthic communities that serve as EFH for managed fish species by

directly providing prey and foraging habitat, or through emergent fauna providing increased structural complexity and shelter from predation. Habitat attributes within fine grained substrates also provide important functions for managed fish species including shelter, foraging, and prey (Wicklund 1966, Ogren *et al.* 1968, Stanley 1971, Shepard *et al.* 1986, Able and Fahay 1998). Sand waves and ridges serve as valuable habitat for refuge and shelter, as well as habitat for spawning and juvenile development for a variety of species. Gravel, cobble and boulder habitats provide structural complexity for managed fish species that require shelter and seek refuge from predation (Auster 1998, Auster and Langton 1999, NRC 2002, Stevenson *et al.* 2006, Stevenson *et al.* 2014). Due to their proximity to the coast, these shallow water habitats are vulnerable to degradation and loss from human activity.

#### *Anadromous Fish*

Anadromous fish provide a food source for several federally managed species (Buckel and Conover 1997, Steimle *et al.* 2000, McDermott *et al.* 2015). Anadromous species, including blueback herring, alewife, and American shad have been declining in numbers over the last several decades, largely due to fishing pressure and habitat loss (ASMFC 2009). Anadromous fish can be significantly impacted by waterway blockages during their upstream or downstream migrations. Blockages to fish movement can be caused by physical structures in the waterway such as dams or fill. Fish migration can also be blocked by turbidity plumes, thermal plumes or acoustic events. Suspended sediment can mask pheromones used by migratory fishes to reach their spawning grounds, impede their migration, and can smother immobile benthic organisms and newly-settled juvenile demersal fish (Auld and Schubel 1978; Breitburg 1988; Newcombe and MacDonald 1991; Burton 1993; Nelson and Wheeler 1997). Anadromous fish serve as prey for a number of federally-managed species and are therefore considered a component of EFH pursuant to the MSA. Actions that reduce the availability of prey species, either through direct harm or capture or through adverse impacts to the prey species' habitat are considered adverse effects on EFH.

#### **Programmatic Essential Fish Habitat (EFH) Consultation**

This programmatic EFH consultation applies to GP activities which may adversely affect EFH and other NMFS trust resources that are permitted by your regulatory program under the state GPs. The scope of analysis for this consultation includes all tidally-influenced waters and wetlands of the United States and, as appropriate, non-tidal waters that support diadromous fish, within the New England region. This programmatic EFH consultation provides our EFH conservation recommendations for projects that you routinely authorize under a GP, and allows you to determine when an action under the GP will require individual EFH consultation with us.

This programmatic EFH consultation will reduce the number of projects that we should screen on an individual basis by programmatically issuing conservation recommendations for GP actions that may adversely affect EFH, without detailed information on a specific project or site. In some cases, activities may have more than minimal adverse impacts on EFH, either individually or cumulatively; however, by modifying an activity according to the conservation recommendations we have provided, those impacts may be avoided or minimized and our EFH consultation requirements will be satisfied. Conservation recommendations for GP activities that are authorized under the new activity-based GP format are provided in Appendix A.

### *Programmatic EFH conservation recommendations*

We evaluated the potential adverse effects to EFH resulting from commonly permitted GP projects in the New England Region. According to data provided to us from your permitting database for 2014 and 2015, approximately 235 acres and 301 acres of subtidal, intertidal, and riverine habitats in the New England region were impacted through 1,517 and 1,562 permits respectively, and we anticipate similar impacts to these habitats in 2016 and subsequent years. Appendix A contains the conservation recommendations which are intended to avoid and minimize impacts to our trust resources for GP projects. These conservation recommendations are based upon both our experience and expertise, as well as our analysis in the most up-to-date science and literature. Specifically, we have been analyzing and providing EFH conservation recommendations to you for over twenty years on substantially identical projects, and are familiar with these types of minimal impact projects. In addition, our office has evaluated a broad range of these activities in *Impacts to marine fisheries habitat from nonfishing activities in the northeastern United States* (Johnson *et al* 2008), and *Shallow Water Benthic Habitats in the Gulf of Maine: A Summary of Habitat Use by Common Fish and Shellfish Species in the Gulf of Maine* (Stevenson *et al* 2014). Based on these efforts, we have developed EFH conservation recommendations for each of the GPs in Appendix A of this document pursuant to Section 305(b)(2) of the MSA.

The EFH conservation recommendations should be incorporated as special conditions in all appropriate GP authorizations, and/or should be incorporated into the project plans. This may include provisions for the use of turbidity and erosion controls, time of year (TOY) restrictions, or other specific criteria to minimize adverse impacts on EFH. Appendix A also identifies any project criteria that would require an individual EFH consultation. For all projects that do not incorporate our EFH recommendations, where an individual EFH consultation is not required, the unincorporated EFH recommendations should be documented and we should be provided written notice a minimum of ten (10) days prior to issuance of the permit. The written notice should specify: 1) the EFH conservation recommendation(s) that were not incorporated, and 2) the justification for not incorporating the EFH conservation recommendation(s).

### *Annual Tracking*

For the purpose of annual tracking, determination of the effectiveness of the programmatic EFH consultation, and calculating cumulative impacts, you should provide an annual summary of the activities permitted under this programmatic EFH consultation for the previous calendar year, which should be sent to us by January 31 of the following year.

Summary information should include:

- A list of permitted actions
- Waterbody and location of each permitted action
- The total area of EFH impacts for each action
- Habitat type(s) at each project
- The documentation of EFH recommendation(s) that were not incorporated, including the justification for not incorporating the recommendation

### *Monitoring and Revision*

Upon receipt of your first annual summary, we will select fifteen (15) completed permit authorizations out of those authorizations which utilized the programmatic EFH consultation procedures. For each

selected authorization, you should submit the application and the permit authorization for our review to ensure that the programmatic consultation process is working as anticipated to protect EFH, without our individual screening. This monitoring process will be repeated every other year for the term of the programmatic consultation.

Following the implementation of this consultation, we will review the results of our first annual evaluation with you to determine whether this consultation should be revised to account for any new information or technology or to better streamline the coordination process. If we determine that this consultation is effective and a revision is not necessary following the first annual review, we will repeat the review process at intervals of at least once every five years.

### **Individual EFH Consultation**

Individual EFH consultation is required for proposed GP activities identified in Appendix A.

#### *Individual EFH Consultation Process*

If an individual EFH consultation is required, the project manager should email an EFH consultation request and the complete application package with all of the necessary information to Christopher Boelke, New England Field Office Supervisor of the Habitat Conservation Division, at [Christopher.Boelke@noaa.gov](mailto:Christopher.Boelke@noaa.gov), with a request for a return receipt, or otherwise confirm that we are in receipt of the project materials.

We will respond to the originating project manager within thirty (30) days of receipt of the consultation request by providing one of the following:

- EFH conservation recommendations
- A concurrence that impacts are not more than minimal and conservation recommendations are unnecessary.
- A request for additional information

#### *Information Required for Individual EFH Consultation*

- Memorandum for the Record including project description.
- Project plans showing existing and proposed conditions.
- Project plans including all waters of the U.S. on the project site, with MLW and MHW clearly marked and sensitive habitats mapped, including SAS (i.e. SAV, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom habitat areas and shellfish beds.
- Where appropriate, current SAV survey results conducted in accordance to the USACE SAV Survey Guidelines.
- Where appropriate, current shellfish survey results conducted within the project area. Local and state shellfish maps should be used to determine if a shellfish survey is needed at the project site.
- An analysis of potential adverse effects on EFH and managed species as well as plans to avoid, minimize or mitigate the impacts. The EFH worksheet can be used for an abbreviated EFH assessment. See <http://www.greateratlantic.fisheries.noaa.gov/habitat/efh/efhassessment.html> to access the worksheet.
- Site photographs (if available).
- Compensatory mitigation plan (if applicable).

### **Supplemental Consultation**

Pursuant to 50 CFR 600.920(l), you should reinitiate EFH consultation with us if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for our EFH conservation recommendations. In the case of this programmatic EFH consultation, you should reinitiate consultation with us if a proposed action is substantially revised in a way such that the activity is no longer covered by this programmatic EFH consultation or if the GPs are changed in any manner that would affect the basis of these conservation recommendations. In addition, if we receive new or additional information that may affect our EFH conservation recommendations, we will consider whether to request additional consultation with you and/or provide additional EFH conservation recommendations.

### **Endangered Species Act and Marine Mammal Protection Act Consultations**

This programmatic consultation applies only to EFH consultations and does not obviate your responsibilities to consult with us under either the Endangered Species Act (ESA) or Marine Mammal Protection Act (MMPA). Section 7(a)(2) of the ESA states that each federal agency shall insure that any action they authorize, fund or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Any discretionary federal action that may affect a listed species should undergo Section 7 consultation. If a listed species may be present in a project area, you are responsible for determining whether the proposed action is likely to affect any listed species. The MMPA prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas. If the proposed action will result in the take of marine mammals, the appropriate authorization as issued under the MMPA should be obtained. More information regarding the ESA and MMPA is located on the Protected Resources Division website at [http://www.nero.noaa.gov/prot\\_res/](http://www.nero.noaa.gov/prot_res/). Questions regarding these requirements should be directed to Mark Murray-Brown at (978) 281-9306.

### **Conclusion**

In summary, this programmatic EFH consultation on the New England District state GPs provides upfront EFH recommendations for projects that you routinely authorize. It provides an efficient method for us to consult with each other on these minor development projects. The consultation includes recommendations for each GP listed in Appendix A as well as information on what type of projects may require individual review. We look forward to working with you to implement this programmatic consultation. Should you have any questions, please contact Christopher Boelke at 978-281-9131 or [Christopher.boelke@noaa.gov](mailto:Christopher.boelke@noaa.gov).

Sincerely,



Louis A. Chiarella  
Assistant Regional Administrator  
for Habitat Conservation

cc: Kim Damon-Randall, PRD  
Thomas Nies, NEFMC  
Christopher Moore, MAFMC  
Lisa, Havel, ASMFC

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## **APPENDIX A: EFH Conservation Recommendations**

## **1. Repair, Replacement, Maintenance and Expansion of Authorized Structures and Fills**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. All expansions greater than ½ acre will require an individual EFH consultation.
4. All replacement or maintenance of: a) sloped stabilization structures greater than 200 LF in length that extend waterward of the existing toe, or b) vertical structures that extend more than 18 inches waterward of the existing face and in excess of 200 LF in length, will require individual EFH consultation.
5. All dam and flood control or levee repairs that will alter water levels or flood elevations will require an individual EFH consultation.
6. All discharges of more than de minimus quantities of accumulated bottom sediments from or through a dam will require an individual EFH consultation.
7. All work to tide gates without a Corps-approved operation and maintenance plan or alterations to tide gates that will affect the hydraulic regime will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No impacts to SAV.
2. No silt producing activities should occur within: 1) 100 feet of SAV, or 2) 25 feet SAS, natural rocky habitats, or shellfish beds.
3. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not anchor in SAV or shellfish beds.
4. No in-water silt producing activities should occur within the established TOY restriction (refer to Appendix B) in tidal waters to minimize impacts to sensitive life stages from harmful turbidity levels, sedimentation impacts and entrainment in equipment.
5. If erosion and turbidity controls are not feasible, silt producing work should be done at periods when the tide is below the elevation of the work, and all excess materials should be removed to upland areas to minimize turbidity and sedimentation impacts.
6. In-water work should occur outside the TOY restriction (refer to Appendix B).
7. For replacement or maintenance of sloped stabilization structures, stabilization materials such as riprap should not extend waterward of the existing toe of slope. Replaced vertical structures should be located within the existing footprint where possible, but should be limited to the area within 18 inches of existing structures.

8. Excavated or dredged materials should be deposited and retained in an upland area to prevent sediments from reentering aquatic habitats; unless they are disposed of at either a US EPA/Corps designated disposal site or a Confined Aquatic Disposal (CAD) cell.
9. For culvert replacement and maintenance activities, fine-grained materials removed from inside culverts should be moved to an upland location and stabilized to prevent reentry into the waterway
10. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, natural rocky habitats, and shellfish beds.

## **2. Moorings**

### *Activities that Require Individual EFH Consultation*

1. All new or relocated moorings located within tidal SAV will require an individual EFH consultation.
2. All mooring field expansions or boundary reconfigurations within SAS, intertidal areas, or shellfish beds; or in excess of ½ acre will require an individual EFH consultation.
3. New boating facility and commercial mooring fields will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No new or relocated moorings should be placed in SAV.
2. New or relocated moorings within SAS or shellfish beds should utilize low-impact mooring technology that eliminates contact with the bottom substrate at all tides, such as helical anchors and elastic or other floating mooring tackle (i.e. no dragging chains).
3. Mooring field expansions or boundary reconfigurations should be located outside of SAS and shellfish beds.
4. Compensatory mitigation should be provided for all adverse impacts to SAS and shellfish beds.

### **3. Pile-Supported Structures, Floats and Lifts**

#### *Activities that Require Individual EFH Consultation*

1. All structures with lengths greater than 150 linear feet over salt marsh will require an individual EFH consultation.
2. All structures located within SAV will require an individual EFH consultation.
3. New public, community, government, or commercial boating facilities or expansions of existing facilities within intertidal, shellfish habitat, or SAV will require individual EFH consultation.

#### *Conservation Recommendations for all other GP activities not identified above*

1. The lowermost part of the floats should be at least 18 inches above the substrate at all times to avoid grounding and propeller scour and to provide adequate circulation and flushing. This may be accomplished by siting in deep enough water, or by elevating the float with float stops or alternative methods to keep the float 18 inches off the bottom. Skids should only be used in areas where piles are not feasible and only on sandy or hard bottom substrates.
2. The height of a structure above salt marsh should be equal to or exceed the width of the deck, to minimize shading impacts. The height should be measured from the marsh substrate to the bottom of the longitudinal support beam.
3. Docks, piers, ramps, or floats should not be located within 25 feet of SAV.
4. Compensatory mitigation should be provided for all direct adverse impacts to SAS and shellfish beds.

#### **4. Aids to Navigation and Temporary Recreational Structures**

##### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV will require an individual EFH consultation.

##### *Conservation Recommendations for all other GP activities not identified above*

1. No structures should be located within SAV.
2. Compensatory mitigation should be provided for impacts to SAV.

## **5. Dredging Disposal of Dredged Material, Beach Nourishment**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.
4. All beach nourishment activities utilizing material that is not consistent with the grain-size or type of the existing substrate will require an individual EFH consultation.
5. All new beach nourishment projects proposing disposal below mean high water will require an individual EFH consultation.
6. Any new or improvement dredging (channels, harbors, residential and/or marinas), dredging to facilitate residential projects including docks or moorings, and new dredging conducted for the sole purpose of beach nourishment will require individual consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No in-water silt producing activities should occur within the established TOY restriction (refer to Appendix B) to minimize impacts to sensitive life stages from harmful turbidity levels, sedimentation impacts and entrainment in dredge equipment.
2. No dredging or nearshore disposal activities should occur within: 1) intertidal areas; 2) 100 feet of SAV; or 3) 25 feet of SAS, natural rocky habitats, or shellfish beds.
3. Rocks should be relocated to an area of equivalent depth and substrate type.
4. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not anchor or contact SAV beds.
5. Dredged materials should be deposited and retained in an upland area to prevent sediments from reentering aquatic habitats; unless they are disposed of at either a US EPA/Corps designated disposal site or a CAD cell.
6. Beach nourishment should be located outside of SAS, and should not impact adjacent SAS, natural rocky habitats, or shellfish beds.
7. Beach nourishment should only be conducted with materials that are of consistent grain size and type with the existing substrate.
8. Maintenance dredging activities should only occur to previous authorized depths, and allowable over-depth.
9. Compensatory mitigation should be provided for impacts to SAS, natural rocky habitats, and shellfish beds.

## **6. Discharges of Dredged or Fill material Incidental to the Construction of Bridges**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No excavation, dredging or fill activities should occur within: 1) intertidal areas, 2) 100 feet of SAV, or 3) 25 feet SAS, natural rocky habitats, or shellfish beds.
2. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with USACE SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not impact SAV beds.
3. In-water work should use proper erosion controls such as cofferdams, silt screens or turbidity curtains to minimize sediment input and turbidity impacts.
4. Dewatering devices such as cofferdams may be used to obtain dry work conditions, but should only be installed or removed outside of the appropriate TOY restriction (refer to Appendix B). Once cofferdams or other devices are installed, work may occur behind them at any time.
5. To minimize turbidity impacts and provide adequate passage for fish, the appropriate TOY restriction (refer to Appendix B) should be applied for unconfined in-water silt-producing work, projects which encroach greater than 25% into a waterway, and the installation or removal of dewatering devices.
6. Construction debris and/or deteriorated materials should not be located in SAS.
7. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, rocky habitats, and shellfish beds.

## **7. Bank and Shoreline Stabilization**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.
4. All structures, fill, and/or armoring placed below MHW in excess of 200 linear feet will require an individual EFH consultation.
5. All replacement or maintenance of: a) sloped stabilization structures greater than 200 LF in length that extend waterward of the existing toe, or b) vertical structures that extend more than 18 inches waterward of the existing face and in excess of 200 LF in length, will require individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. All work below ordinary high water (OHW) or mean high water (MHW) should utilize erosion controls such as cofferdams, jersey barriers, silt screen, turbidity curtain, etc. to prevent sediment input to the waterway and to minimize turbidity and sedimentation impacts for sensitive life stages, and such controls should not extend greater than 25% into a waterway within TOY restrictions (refer to Appendix B) to provide adequate passage for fish.
2. If erosion and turbidity controls are not feasible, silt producing in-water work should be conducted outside of the TOY restriction (refer to Appendix B) and should be done at periods when the water is below the elevation of the work, and all excess materials should be removed to upland areas to minimize turbidity and sedimentation impacts.
3. For replacement or maintenance of sloped stabilization structures, stabilization materials such as riprap should not extend waterward of the existing toe of slope. Replaced vertical structures should be located within the existing footprint where possible, but should be limited to the area within 18 inches of existing structures.
4. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with USACE SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not impact SAV beds. If SAV is located within the vicinity of a project site, the contractor should be provided maps of the SAV to ensure it is avoided.
5. No silt producing activity should occur within 100 feet of SAV, or 25 feet of tidal wetlands or shellfish beds.
6. Fill should be located outside of SAS, rocky habitats, and shellfish beds, and should not impact adjacent SAS, rocky habitats, or shellfish beds.

7. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, rocky habitats, and shellfish beds.

## **8. Residential, Commercial and Institutional Developments, Recreational Facilities**

### *Activities that Require Individual EFH Consultation*

1. All projects that include stream channelization, relocation, or loss of streambed will require individual EFH consultation.
2. All projects located within tidal waters with impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
3. All projects located within tidal waters with impacts to greater than 1000 SF of SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
4. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. All work below OHW should use erosion controls such as cofferdams, jersey barriers, silt screen, turbidity curtain, etc. to prevent sediment input to the waterway and to minimize turbidity and sedimentation impacts for sensitive life stages, and such controls should not extend greater than 25% into a waterway within TOY restrictions (refer to Appendix B) to provide adequate passage for fish.
2. If erosion and turbidity controls are not feasible, silt producing in-water work should be conducted outside of the TOY restriction (refer to Appendix B) and should be done at periods when the water is below the elevation of the work, and all excess materials should be removed to upland areas to minimize turbidity and sedimentation impacts.
3. Compensatory mitigation should be provided for impacts to tidal SAS, intertidal areas, natural rocky habitats, and shellfish beds.

## 9. Utility Line Activities

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. In areas of fine-grained substrates, management techniques such as silt curtains, cofferdams or other barriers should be used to minimize turbidity and sedimentation, and such controls should not encroach greater than 25% into a waterway to provide adequate passage for fish. If such controls are not feasible, then the TOY restriction (refer to Appendix B) should be used.
2. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not impact SAV beds.
3. To provide adequate passage for fish, any unconfined in-water work and/or utility line activities that encroach greater than 25% into a waterway should use the appropriate TOY restriction (refer to Appendix B).
4. Trenches should be backfilled immediately after installation.
5. Utility lines in non-tidal waters located within, or adjacent, to SAS should utilize Horizontal Directional Drilling (HDD).
6. Utility lines in tidal waters should utilize HDD where possible.
7. For projects using HDD, a frac-out plan (including an emergency response and cleanup) should be developed and required as a special condition of the permit.
8. Pipelines and submerged cables should be buried when possible, instead of resting on the surface, to allow an area to return to preexisting conditions.
9. Pipelines should be aligned along the route that avoids sensitive habitats including SAS and hard bottom habitat, to the maximum extent possible.
10. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, natural rocky habitats, and shellfish beds.

## **10. Linear Transportation Projects Including Stream Crossings/Stream and Water Crossings**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.
4. Replacement crossings that do not meet the USACE Stream Crossing Best Management Practices guidelines, or propose slip-lining of existing culverts, will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

8. No excavation, dredging or fill activities should occur within: 1) intertidal areas, 2) 100 feet of SAV, or 3) 25 feet SAS, natural rocky habitats, or shellfish beds.
9. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with USACE SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not impact SAV beds.
10. In-water work should use proper erosion controls such as cofferdams, silt screens or turbidity curtains to minimize sediment input and turbidity impacts.
11. Dewatering devices such as cofferdams may be used to obtain dry work conditions, but should only be installed or removed outside of the appropriate TOY restriction (refer to Appendix B). Once cofferdams or other devices are installed, work may occur behind them at any time.
12. To minimize turbidity impacts and provide adequate passage for fish, the appropriate TOY restriction (refer to Appendix B) should be applied for unconfined in-water silt-producing work, projects which encroach greater than 25% into a waterway, and the installation or removal of dewatering devices.
13. Construction debris and/or deteriorated materials should not be located in SAS.
14. Excavated or dredged materials should be deposited and retained in an upland area to prevent sediments from reentering aquatic habitats, unless they are disposed of at either a US EPA/Corps designated disposal site or a CAD cell.
15. Replacement crossings should be constructed in accordance to the USACE Stream Crossing BMP guidelines. Specifically, these crossings should maintain a natural bottom substrate and be sized, constructed and maintained to match the gradient and width of the stream, to accommodate all flows and to provide passage for migratory fish.
16. Existing culverts should not be slip-lined to ensure there is no reduction in fish passage or habitat quality.

17. For culvert replacement and maintenance activities, fine-grained materials removed from inside culverts should be moved to an upland location and stabilized to prevent reentry into the waterway.
18. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, rocky habitats, and shellfish beds.

## **11. Mining Activities**

### *Activities that Require Individual EFH Consultation*

1. Mining activities located within riffle and pool complexes will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No mining activities should occur within SAS, including riffle and pool complexes.
2. All work below OHW should utilize erosion controls such as cofferdams, jersey barriers, silt screen, turbidity curtain, etc. to prevent sediment input to the waterway and to minimize turbidity and sedimentation impacts for sensitive life stages, and such controls should not extend greater than 25% into a waterway within TOY restrictions (refer to Appendix B) to provide adequate passage for fish.
3. If erosion and turbidity controls are not feasible, in-water work should be conducted outside the TOY restriction (refer to Appendix B).
4. Mined materials should be deposited and retained in an upland area to prevent sediments from re-entering aquatic habitats.
5. Compensatory mitigation should be provided for impacts to SAS.

## **12. Boat Ramps and Marine Railways**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No permanent impacts to tidal SAS, natural rocky habitats, or shellfish beds.
2. No silt producing activity should occur within 100 feet of SAV or within 25 feet of tidal wetlands or shellfish beds.
3. Projects proposed within or adjacent to historically mapped (or otherwise known) SAV beds should require a survey if a recent (no greater than 3-years old) SAV survey has not been conducted in accordance with USACE SAV survey guidelines to determine the current extent of SAV beds in the project vicinity. Any SAV located within a project site should be identified in the field prior to the start of work and equipment should not impact SAV beds.
4. All silt producing activities should utilize erosion controls such as cofferdams, jersey barriers, silt screen, turbidity curtain, etc. to prevent sediment input to the waterway and to minimize turbidity and sedimentation impacts for sensitive life stages, and such controls should not extend greater than 25% into a waterway within TOY restrictions (refer to Appendix B) to provide adequate passage for fish.
5. If erosion and turbidity controls are not feasible, silt producing in-water work should be conducted outside of the TOY restriction (refer to Appendix B) and should be done at periods when the tide is below the elevation of the work, and all excess materials should be removed to upland areas to minimize turbidity and sedimentation impacts.
6. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, natural rocky habitats, and shellfish beds.

### **13. Land and Water-Based Renewable Energy Generation Facilities**

#### *Activities that Require Individual EFH Consultation*

1. All projects related to renewable energy generation facilities will require an individual EFH consultation.

## **14. Temporary Construction, Access, and Dewatering**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.
4. All temporary structures, construction access, and dewatering activities proposed to be in place for greater than 2 years will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. All temporary structures, construction, access and dewatering activities should be located outside of tidal SAS, natural rocky habitats, and shellfish beds.
2. Temporary structures, construction, access, and dewatering activities should not be in place for greater than 2 years.
3. Low ground pressure equipment or construction mats should be used to minimize soil and vegetation disturbance.
4. No temporary construction, access, and dewatering should occur within 100 feet of SAV.
5. No activities should occur within 25 feet of tidal wetlands, mudflats, or shellfish beds.
6. SAS and shellfish beds should be identified in the field prior to any fill activities.
7. Compensatory mitigation should be provided for activities that are in place for greater than 2 years.

## **15. Reshaping Existing Drainage Ditches, New Ditches, and Mosquito Management**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats from reshaping existing drainage ditches, or new ditches will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds from reshaping existing drainage ditches, or new ditches will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources from reshaping existing drainage ditches, or new ditches will require an individual EFH consultation.

## **16. Response Operation for Oil and Hazardous Substances**

### *Activities that Require Individual EFH Consultation*

1. Training structures with impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Training structures with impacts to greater than 1000 SF of tidal SAS, intertidal areas, , and shellfish beds will require an individual EFH consultation.
3. Training structures with impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. Training structures should be located outside of SAS, natural rocky habitats and shellfish beds.
2. Compensatory mitigation should be provided for impacts to SAS, natural rocky habitats, and shellfish beds.

## **17. Clean up of Hazardous and Toxic Waste**

### *Activities that Require Individual EFH Consultation*

1. All cleanup activities within tidal waters will require an individual EFH consultation.

## **18. Scientific Measurement Devices**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No permanent impacts to tidal SAS, intertidal areas, rocky habitats, or shellfish beds.
2. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, rocky habitats, or shellfish beds.

## 19. Survey Activities

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.
4. All exploratory trenching activities, or other similar silt-producing survey activities, will require an individual EFH consultation.
5. All survey activities involving seismic testing will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No permanent impacts to SAS, natural rocky habitats, or shellfish.
2. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, natural rocky habitats, or shellfish beds.

## **20. Agricultural Activities**

### *Activities that Require Individual EFH Consultation*

1. All projects that include stream channelization, relocation, or loss of streambed will require individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. All silt producing work below OHW should utilize erosion controls such as cofferdams, jersey barriers, silt screen, turbidity curtain, etc. to prevent sediment input to the waterway and to minimize turbidity and sedimentation impacts for sensitive life stages, and such controls should not extend greater than 25% into a waterway within TOY restrictions (refer to Appendix B) to provide adequate passage for fish.
2. If erosion and turbidity controls are not feasible, silt producing in-water work should be conducted outside of the TOY restriction (refer to Appendix B) and/or should be done at periods when the water is below the elevation of the work, and all excess materials should be removed to upland areas to minimize turbidity and sedimentation impacts.

## **21. Fish and Wildlife Harvesting and Attraction Devices and Activities/Aquaculture**

### *Activities that Require Individual EFH Consultation*

1. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
2. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
3. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.
4. Enclosures and impoundments for aquaculture activities within tidal waters will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. No permanent impacts to SAS, rocky habitats, or shellfish beds.
2. Structures, cages, gear, or shell hash should not be located within 25 feet of, or suspended above, SAV. Shell hash should not be deposited in SAS to avoid conversion of habitats.
3. Seasonal structures should be removed during the off-season and stored in upland areas to minimize effects of habitat loss and shading that may occur from floats and cages.
4. Compensatory mitigation should be provided for impacts to SAS, intertidal areas, natural rocky habitats, or shellfish beds.

## **22. Habitat Restoration, Establishment and Enhancement Activities**

### *Activities that Require Individual EFH Consultation*

1. All projects incorporating thin layer deposition for wetland restoration will require an individual EFH consultation.
2. Impacts to greater than 100 SF of tidal SAV or natural rocky habitats will require an individual EFH consultation.
3. Impacts to greater than 1000 SF of tidal SAS, intertidal areas, and shellfish beds will require an individual EFH consultation.
4. Impacts to greater than ½ acre of tidal resources will require an individual EFH consultation.

### *Conservation Recommendations for all other GP activities not identified above*

1. Restoration projects should utilize appropriate sediment and erosion control methods when working within, or adjacent to, SAS or shellfish beds. Measures include the use of turbidity curtains, hay bales, and erosion control mats.
2. Seed shellfish, spatted-shell, or cultch should not be deposited in SAS to avoid conversion of habitats.
3. Work in SAS, including regrading activities, should be done at periods when the tide is below the elevation of the work. Low ground pressure equipment or construction mats should be used to minimize soil and vegetation disturbance.
4. For localized restoration activities, dewatering devices such as cofferdams may be used to obtain dry work conditions, but should only be installed or removed outside of the appropriate TOY restriction (refer to Appendix B). Once cofferdams or other devices are installed, work may occur behind them any time.
5. To minimize turbidity impacts and provide adequate passage for fish, the appropriate TOY restriction (refer to Appendix B) should be applied for any unconfined sediment producing activity, projects which encroach greater than 25% into the waterway, and for the installation or removal of dewatering devices.
6. No ancillary work should occur in SAS or shellfish beds other than proactive habitat restoration or enhancement of SAS.
7. Habitat restoration projects should not result in a permanent conversion or loss of cobble or rocky hard-bottom habitat, SAS, or shellfish beds.
8. Only native species of vegetation should be planted and invasive species should be controlled within the restoration site.

**APPENDIX B: RECOMMENDED TIME OF YEAR  
RESTRICTIONS**

Time of year (TOY) restrictions are provided for each New England state so that work (i.e., dredging or other in-water, turbidity and noise producing activities) may be avoided during sensitive life stages of managed species. These standard restrictions take into account the breeding, nursery and migration stages of managed species which are especially vulnerable to in-water silt-producing activities, dredging projects, noise impacts or project activities which may encroach greater than 25% into a waterway, interfering with migration. In-water work for those projects or activities with EFH conservation recommendations to utilize the appropriate TOY restriction should not be completed during the TOY restriction provided below.

For work in tidal waters, a request for exemption from the recommended winter flounder TOY restriction should not be granted without coordination with NMFS.

TABLE 1: TOY RESTRICTION

State	TOY Restrictions
Connecticut	Winter Flounder: February 1 to May 31 <sup>1</sup> Diadromous Fish: April 1 to June 30 Shellfish: May 1 to September 30
Rhode Island	Winter Flounder: February 1 to June 30 Diadromous Fish: March 15 to June 30 Shellfish: May 1 to October 14
Massachusetts	Winter Flounder: January 15 to June 30 <sup>2</sup> Diadromous Fish: March 1 to June 30 <sup>2</sup> Shellfish: June 1 to October 31 <sup>2</sup>
New Hampshire	March 16 to November 14 of any year
Maine	Winter Flounder: March 15 to June 30 Diadromous Fish: April 1 to June 30 Shellfish: June 1 to October 31

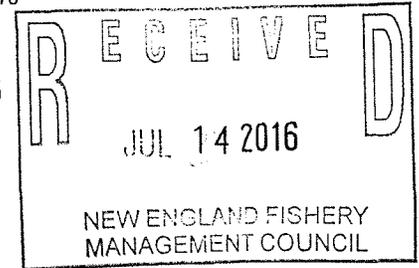
<sup>1</sup> The TOY restriction for work occurring in the Connecticut River, north of Old Saybrook, is from April 1 through June 30.

<sup>2</sup> The Massachusetts Division of Marine Fisheries (MA DMF) has developed site-specific TOY restrictions for coastal alteration projects by waterbody. The TOY document provided on the MA DMF website at [http://www.mass.gov/dfwele/dmf/publications/tr\\_47.pdf](http://www.mass.gov/dfwele/dmf/publications/tr_47.pdf) may be referenced for in-water alteration projects in applicable locations.



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

JUL 13 2016



Mr. William Kavanaugh  
Project Manager  
U.S. Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742-2751

**Re: Chatham Stage Harbor Federal Navigation Project, Chatham, Massachusetts**

Dear Mr. Kavanaugh:

We received your letter and Essential Fish Habitat (EFH) Assessment dated May 17, 2016, regarding proposed dredging of the Chatham Stage Harbor Federal Navigation Project (FNP) with nearshore disposal in Chatham, Massachusetts. The proposal involves the dredging of 40,000 to 60,000 cubic yards of material within the entrance channel to a depth of 10 feet below mean low lower water using the Currituck or a mechanical dredge. The material would be disposed of at two nearshore placement areas along Harding Beach west of the entrance channel. One of the proposed placement areas has been previously used by the Corps for nearshore disposal, the depths at this placement area range from approximately -12 to -28 feet mean sea level. The second location has been previously used by the Town of Chatham for nearshore disposal of dredge material and is located approximately 1200 ft to the west of the previously used Corps disposal site with depths ranging from approximately -6 to -20 feet mean sea level. Dredging was originally planned for the 2016 season, but has been postponed until the 2017 season.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act require federal agencies to consult with one another on projects such as this. Insofar as a project involves EFH, as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in the relevant consultation procedure. We offer the following comments and recommendations on this project pursuant to the above referenced regulatory process.

**General Comments**

Stage Harbor contains productive fishery habitats that support numerous important living marine resources including federally managed finfish including Atlantic cod, winter flounder, summer flounder, scup, butterfish, and bluefish. This area also supports important shellfish resources which serve as prey for managed fish species and therefore are considered a component of EFH. Ocean quahog and surf clams have been mapped by the Massachusetts Division of Marine Fisheries (MassDMF) within the proposed nearshore placement areas and the Stage Harbor entrance channel is located within and adjacent to multiple mapped shellfish resources.



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MassDMF has also identified this area as an important horseshoe crab spawning area. Historically, eelgrass beds have been mapped adjacent to the entrance channel and nearshore placement areas. The proposed project has the potential to adversely affect the habitat value by direct removal of habitat and through burial during the nearshore placement of dredge spoils, as well as by elevating suspended sediments in the water column.

Elevated suspended sediments in the water column have been documented to result in adverse impacts to various life stages of fish (Newcombe and Jensen 1996, Wilbur and Clark 2001). High turbidity can impact fish species through greater utilization of energy, gill tissue damage and mortality. Egg and larval life stages may be more sensitive to suspended sediments, resulting in both lethal and sub-lethal impacts (Newcombe and Jensen 1996). Settlement of suspended sediments can smother winter flounder eggs and cause increased mortality rates (Pereira et al. 1999). However, both the entrance channel and nearshore placement areas are outside of the Stage Harbor embayment area and located within exposed, dynamic sand habitats. Therefore we do not expect winter flounder spawning to occur within, or adjacent to, the dredge or disposal areas.

The proposed project may result in interactions with spawning activity of horseshoe crabs in this area. During the spawning season, horseshoe crabs congregate in deeper waters during the day, migrating into shallow waters and onto adjacent beaches during the night to spawn and lay eggs in nests on sandy beaches. This behavior exhibited during the spawning season creates the potential for adverse interactions with horseshoe crabs and dredge operations within the entrance channel that provides a migratory pathway into nesting grounds within Stage Harbor and adjacent beaches. If mechanical dredge operations are employed, limiting dredge operations outside of the horseshoe crab spawning season would minimize potential adverse impacts and interactions with spawning adults.

Eelgrass beds are ephemeral and may expand or shift on an annual basis. Eelgrass beds in the project vicinity have the potential to expand into the entrance channel dredge footprint, or within the nearshore placement areas, and may be adversely impacted through direct removal or burial. Eelgrass beds adjacent to the channel and disposal areas may also be impacted by increased turbidity and suspended sediments in the water column as a result of the proposed dredging and disposal. Increased suspension of sediments and resulting turbidity has been shown to reduce eelgrass abundance (Duarte et al. 2005). Eelgrass may be adversely affected through light attenuation and burial or smothering resulting from turbidity and subsequent sedimentation (Johnson et al. 2008; Deegan and Buchsbaum 2005). Burial of eelgrass in as little as 2 to 4 centimeters of sand may result in decreased productivity and increased mortality (Cabaco et al. 2008).

The U.S. Environmental Protection Agency has designated submerged aquatic vegetation, including eelgrass, as "special aquatic sites" under the Section 404(b)(1) of the federal Clean Water Act, due to its important role in the marine ecosystem for nesting, spawning, nursery cover and forage areas for fish and wildlife. Furthermore, the Mid-Atlantic Fishery Management Council has designated eelgrass as a Habitat Area of Particular Concern (HAPC) when associated with summer flounder EFH. As mentioned above, impacts to eelgrass beds from dredging and disposal include direct impacts through physical removal and indirect impacts of

sedimentation. Impacts to eelgrass may occur in those areas directly abutting the federal channel and where it exists within the anchorage area. Direct and indirect impacts to this critical habitat should be minimized to the greatest extent possible.

The Massachusetts Department of Environmental Protection (MassDEP) has mapped eelgrass beds in 1995 and 2001 adjacent to both proposed nearshore placement areas. Eelgrass beds have also been mapped by MassDEP adjacent to the entrance channel in 1995, 2001, and most recently, in 2010. Similar in expanse to the historically mapped 1995 and 2001 eelgrass beds, the 2010 MassDEP eelgrass maps illustrate the re-establishment of eelgrass beds east of the outer portion of the entrance channel and along both shorelines within Stage Harbor. No surveys have been completed by MassDEP within the project area since the 2010 survey. You have previously conducted eelgrass surveys within the nearshore disposal areas in 2008, 2009, and 2010. No eelgrass was identified in any of these surveys. However, as you are aware, we have previously expressed concern with the timing and methodologies employed in the completion of these surveys. The previously used disposal area was relocated in 2009. Prior to 2009, the disposal area overlapped with a portion of the MassDEP historically mapped eelgrass beds. The 2009 relocation of this disposal area pushed the boundaries waterward, and outside of all historically mapped eelgrass beds.

Due to concerns over past eelgrass surveys, and in consideration of evaluating future needs for eelgrass surveys for this project, we removed the Chatham Stage Harbor FNP from our Programmatic EFH consultation with your agency last year. For this project, you have provided a 2013 eelgrass survey conducted by the Provincetown Center for Coastal Studies. The 2013 survey covered the entrance channel footprint, the newly proposed nearshore placement area, and a small portion of the western-most section of the previously used placement area. No eelgrass was identified within or adjacent to the entrance channel or surveyed portions of the nearshore placement areas during the 2013 survey. Given the re-establishment of the historically mapped eelgrass beds east of the outer section of the entrance channel and adjacent shorelines within Stage Harbor in the 2010 MassDEP survey, there is the potential that the historically mapped eelgrass beds adjacent to the nearshore placement areas may also become re-established.

Going forward, we recommend that eelgrass surveys be performed once every three years. Eelgrass surveys conducted by MassDEP may be used to fulfill this recommendation. Since this project will not occur until the 2017 season, and since approximately three-quarters of the eastern disposal area was not surveyed in 2013, an eelgrass survey should be completed during this growing season, or during the 2017 growing season prior to the project start date. To avoid further concerns with eelgrass surveys in the future, the proposed survey methodology, including transect lines, should be provided for our review and comment prior to initiation of the survey.

### **Essential Fish Habitat**

Stage Harbor and the nearshore placement areas along Harding Beach are designated as EFH under the MSA for multiple managed fish species, including Atlantic cod, summer flounder, winter flounder, windowpane flounder, scup and bluefish. As described above, the proposed project may adversely affect EFH by impacting eelgrass beds, an HAPC for juvenile summer flounder, located within the project area. We recommend pursuant to Section 305(b)(4)(A) of the MSA that you adopt the following EFH conservation recommendations:

1. Prior to dredging and nearshore disposal, an eelgrass survey should be performed during the growing season once every three years. We recommend coordination with our office on the survey plan and methodology prior to conducting the eelgrass survey to ensure we concur with the proposed survey design. Copies of the eelgrass survey should be submitted to our office for review.
2. If eelgrass beds area identified within or adjacent to the disposal areas, the proposed footprints should be modified to maintain a minimum 100 foot buffer from any identified eelgrass beds.
3. The edge of eelgrass beds at the project site should be identified and marked prior to commencing dredge and disposal activities to ensure the dredge operator is aware of the eelgrass location at all times. The dredging contractor should be provided maps and waypoints depicting the eelgrass beds prior to commencement of work.

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH conservation recommendations, including a description of measures you adopt for avoiding, mitigating or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that you must explain your reasons for not following the recommendations. Included in such reasoning would be 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).

Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920(l) if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations.

#### **Fish and Wildlife Coordination Act Recommendations**

In addition to the EFH provisions of the MSA, the Fish and Wildlife Coordination Act requires that we consult with each other on activities that impact fish and wildlife resources. As mentioned above, the project area serves as spawning habitat and migratory corridor for horseshoe crabs. In order to protect horseshoe crab spawning we recommend you adopt the time of year restriction as noted below.

- 1) In order to protect horseshoe crabs, no mechanical dredging activities should occur within the entrance channel between May 1 to June 30 of any calendar year. Dredging and disposal using the Currituck may occur at any time.

#### **Endangered Species Act**

Threatened and endangered species under our jurisdiction may be present in the action area. A consultation pursuant to section 7 of the Endangered Species Act of 1973 is required. Our Protected Resources Division has reviewed your determination that the proposed project is not likely to adversely affect any species listed by us as threatened or endangered under the ESA of 1973 and has concurred with your determination in a letter dated June 21, 2016. If you have any

questions regarding the status of this consultation, please contact Zachary Jylkka at 978-282-8467 or [zachary.jylkka@noaa.gov](mailto:zachary.jylkka@noaa.gov).

### **Conclusion**

In summary, we recommend that no mechanical dredging occur between May 1 and June 30 of any year to avoid disrupting horseshoe crab spawning activity known to occur within Stage Harbor. In addition, we recommend that an eelgrass survey be coordinated with our office and completed prior to dredge operations in 2017. The results of the eelgrass survey should be used to modify the project boundaries, as appropriate, and made available to the dredge operator, that the beds be avoided at all times and that vessels not be permitted to anchor in the areas containing the beds. We look forward to your response to our EFH conservation recommendations, and continued coordination on this project. Please contact Alison Verkade at 978-281-9266 or [alison.verkade@noaa.gov](mailto:alison.verkade@noaa.gov) if you would like to discuss this further.

Sincerely,



Louis A. Chiarella  
Assistant Regional Administrator  
for Habitat Conservation

cc: Zachary Jylkka, PRD  
Phil Colarusso, USEPA  
John Logan, MA DFW  
Robert Boeri, MA CZM  
Lealdon Langley, MA DEP  
Valerie Capolla, ACOE  
Tom Nies, NEFMC  
Chris Moore, MAFMC  
Lisa Havel, ASMFC

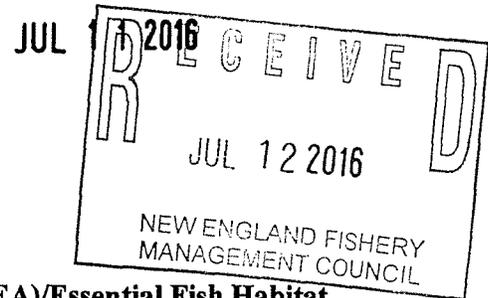
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UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
GREATER ATLANTIC REGIONAL FISHERIES OFFICE  
55 Great Republic Drive  
Gloucester, MA 01930-2276

Michelle Morin  
Chief, Environmental Branch for Renewable Energy  
United States Department of Interior  
Bureau of Ocean Energy Management  
Environmental Branch for Renewable Energy  
45600 Woodland Road, VAM-OREP  
Sterling, Virginia 20166



**RE: New York Wind Energy Area Environmental Assessment (EA)/Essential Fish Habitat (EFH) Assessment**

Dear Ms. Morin:

We have reviewed the Commercial Wind Lease Issuance and Site Characterization Activities on the Atlantic Outer Continental Shelf Offshore New York Environmental Assessment (OSC EIS/EA BOEM 2016-042) prepared by the Bureau of Ocean Energy Management (BOEM). The availability of the document was announced in the Federal Register (81 FR 36344) on June 6, 2016. We also received your request for an Essential Fish Habitat (EFH) consultation with our agency on June 14, 2016.

Your proposed action under the environmental assessment (EA) is to issue leases within the identified wind energy area (WEA) offshore New York and approve site assessment and site characterization activities on those leases. Actions covered under the scope of the EA include shallow hazard, geological, geotechnical, biological, and archaeological resource surveys and construction, operation, and decommissioning of a meteorological tower, meteorological buoy, or a combination of the two within the WEA.

The EA analyzes two alternatives which include leasing the entire wind energy area, while restricting site assessment structure placement. Alternative A would restrict placement of site assessment structures within 1 nautical mile (nm) of a traffic separation scheme (TSS). Alternative B would further restrict placement of structures within 2 nm of the TSS, as recommended by the US Coast Guard to reduce collision risks. The area available for site assessment facilities under Alternative B is 37 percent of the area available under Alternative A. Reduction of the lease area under Alternative B was not considered. A no action alternative was also evaluated.

We note that prior to the commencement of any site assessment or site characterization activities such as the installation of meteorological towers and buoys or geophysical, geotechnical, archeological and biological surveys, lessees must submit a site assessment plan (SAP) and proposed survey plans to your agency for approval. We recommend you coordinate with us prior to approval of a lessee's SAP with information necessary to complete an Essential Fish Habitat (EFH) consultation. Additionally, certain site assessment activities, such as geophysical and geotechnical surveys may occur to support information in the SAP and therefore be conducted prior to the SAP approval. We recommend that you coordinate with us on these surveys to determine impacts to living marine resources. Finally, we note that your proposed process contemplates that further



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environmental analysis will be necessary under the National Environmental Policy Act (NEPA) prior to approval of construction and operations plan (COP). As such, a separate EFH consultation will be necessary for the COP.

The EA provides a general programmatic analysis of your proposed lease program rather than specific analysis of particular lease applications. Consequently, many of our comments and recommendations in this letter are, similarly, at a general, programmatic level.

### **Background**

The New York WEA was officially established in March 2016. This proposed project site was initially submitted to your agency as an unsolicited request by the New York Power Authority in September 2011. After further modifications of the site, you published a Request for Interest (RFI) in January 2013. This RFI determined competitive interest in the site, which resulted in initiation of the competitive leasing process. A Call for Information (CFI) was issued in May 2014. We provided comments on the RFI in a letter dated February 22, 2013, and the CFI in a letter dated July 8, 2014. These letters provided information on important NOAA trust resources found within the area, and we expect that this information will be used to assess impacts throughout the licensing process. In these letters, we also outlined the consultation processes for EFH under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and Section 7 consultation under the Endangered Species Act (ESA), as well as requirements under the Marine Mammal Protection Act (MMPA).

### **Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. §§ 1801 et seq.)**

#### **Fisheries Comments**

According to the EA, the primary fisheries to be affected by any development of the WEA include Atlantic sea scallop, squid, mackerel, and butterfish. Other species of commercial importance with distributions that overlap the WEA include monkfish, Atlantic herring, black sea bass, surfclam/ocean quahog, bluefish, summer flounder, spiny dogfish, skate, and scup. The WEA overlaps with fisheries from multiple states across the Mid-Atlantic and New England regions. Most squid vessels, regardless of home port, land their catch in Point Judith, Rhode Island, and the majority of scallop vessels operate out of New Bedford, Massachusetts. Vessels out of New York and New Jersey are also known to use this area. Given the regional significance of this WEA, it is important that fishing industry outreach for any proposed development spans several surrounding states (New York, New Jersey, Rhode Island, and Massachusetts), and includes both the New England and Mid-Atlantic Fishery Management Councils.

Among the alternatives evaluated under the EA, Alternative B reduces the area within the WEA where site assessment structures can be constructed. We note that in addition to providing a larger buffer from the active shipping lanes, this alternative also reduces the overlap of activities on Cholera Bank, which is known to be a significant fishing ground for a number of the fisheries mentioned above. This alternative would minimize impacts of site assessment activities to the fisheries, particularly impacts associated with potential pile driving required for construction of a meteorological tower.

The EA also discusses alternatives that were considered but not analyzed in detail. These include measures to protect longfin squid from potential injurious sound. In response to comments from the squid industry, you evaluated noise impacts on squid from potential site assessment activities. Based on available information (Andre et al. 2011, Mooney et al. 2010), you determined that sound sources from SAP activities within the hearing range of squid include active sub-bottom profilers and pile

driving noise from construction of a meteorological tower. These activities would likely occur during the summer months, which overlap with the height of the squid fishing season within the WEA. Within the EA, you determined there is no evidence to suggest injury to squid would occur due to the baseline activities at the site, including high vessel activity and associated noise, as well as the ability of squid to swim away, and therefore, you do not intend to prohibit any noise producing activities in the summer months. We expect any potential impacts to the squid fishery would depend on the timing, location, and extent of site assessment activities within the WEA. Given the fact that you are not proposing to limit the time of year for site assessment activities, it is important we have the opportunity to review individual plans for the SAP, as well as plans for any high resolution geophysical (HRG) surveys where active sub-bottom profilers would be used. Absent a review of the specific survey plans and the individual SAP, we cannot concur at this time that impacts would be negligible.

As you acknowledge in the EA, information is limited on sound detection by invertebrates and thus noise exposure guidelines for any invertebrate species have not been established (Hawkins and Popper, 2014). Specifically, impacts of noise on cephalopods remain relatively unknown (Mooney et al. 2012). Though this EA is only evaluating impacts of site assessment activities, limited data exist to fully evaluate potential impacts of larger scale construction on marine invertebrates. As planning for potential development moves forward, it is important that more data be collected on the potential impacts to invertebrates from noise related to offshore wind development. We encourage you to conduct environmental studies to improve our understanding of acoustic impacts to invertebrates. This is particularly important for the WEA, as the squid fishing industry has the potential to be one of the most affected fisheries by future development within the EA.

Another alternative considered, but not analyzed in detail, includes the exclusion of areas from leasing due to conflicts between commercial scale wind facilities and fishing. According to the EA, this alternative was eliminated from further analysis in this EA because these concerns are related to larger scale wind development rather than site assessment activities analyzed under this EA. The EA indicates you plan to evaluate such alternatives in detail later if the WEA is leased and if the lessee submits a COP. As you are aware, significant concerns have been raised by the fishing industry related to site selection of the WEA and conflicts with major fisheries in the area. We recommend you take all possible steps to minimize impacts of any actions on the fishing industry, including re-evaluating the lease area. The fishing industry provided you with information on the area, including comments on the analysis of existing data as well as additional data to help illustrate areas of greatest concern. We recommend you consider eliminating areas of the WEA that pose the greatest conflict with the fishing industry prior to issuing a lease. We maintain that by eliminating these areas upfront, conflicts with the fishing industry will be reduced. We also encourage you work closely with the fishing industry throughout the process and ensure potential lessees are fully aware of conflict with commercial fishing industry prior to moving forward with planning for large scale development.

#### Essential Fish Habitat Comments

The WEA covers a large area in Federal waters off the coast of New York. The area contains unique and important habitats that support a wide range of NOAA trust resources. The WEA is also designated as EFH for more than 35 species of fish and shellfish managed under Fishery Management Plans developed by the New England Fishery Management Council, Mid-Atlantic Fishery Management Council, South Atlantic Fishery Management Council, and NOAA. Some species with EFH designations in the WEA include longfin squid (*Loligo pealeii*), monkfish (*Lophius americanus*), Atlantic sea herring (*Clupea harengus*), winter flounder (*Pseudopleuronectes*

*americanus*), witch flounder (*Glyptocephalus cynoglossus*), summer flounder (*Paralichthys dentatus*), spiny dogfish (*Squalus acanthias*), scup (*Stenotomus chrysops*), Atlantic sea scallop (*Placopecten magellanicus*), ocean quahog (*Artica islandica*), surf clam (*Spisula solidissima*), bluefish (*Pomatomus saltatrix*), and black sea bass (*Centroprisis striata*) as well as several highly migratory species.

The scope of the EA covers potential site assessment activities that may occur, including shallow hazard, geological, geotechnical, biological, and archaeological resource surveys and construction, operation, and decommissioning of a meteorological tower, meteorological buoy, or a combination of the two within the WEA. Impacts to EFH associated with these activities include impacts of turbidity from suspended sediments, direct impacts and habitat loss from fill of structures and associated scour protection. Additional benthic impacts associated with vessel or buoy anchors may occur. Acoustic impacts from potential pile driving associated with a meteorological tower and active sub-bottom profiling activities may also occur from potential site assessment activities.

As discussed in the EA, the WEA overlaps with a portion of Cholera Bank, an area designated by the State of New Jersey as a prime fishing habitat and a sport and commercial fishing ground (Long and Figley 1981). This area is also heavily used by the squid fishery. As illustrated in the data presented in Figures 4-7 and 4-8 of the EA, this area provides a variation in depth and more complex bottom habitats. Structurally complex habitats provide important functional value to fish as shelter and refuge from predators (Auster 1998, Auster and Langton 1999, NRC 2002, Stevenson et al. 2004). We consider these areas to be sensitive habitats, as complex benthic substrates are vulnerable to disturbance, particularly due to extended recovery times (Collie et al. 2005; Bradshaw et al. 2000). During the development of any SAP, impacts to these sensitive areas should be avoided.

Additional impacts to EFH may occur through noise, particularly from any potential pile driving associated with construction of a meteorological tower or sub-bottom profilers associated with high-resolution geophysical surveys (HRG). Though the EA provides information on the HRG and geotechnical/sub-bottom sampling equipment expected to be used, there are no details on the specific surveys proposed at the site. HRG and geotechnical surveys are expected to occur in the immediate area where a meteorological tower or buoy is proposed. In other cases, the developer may also choose to conduct these surveys over the entire area of the WEA. We recommend our agency be notified of these surveys and have the opportunity to review and provide comments, if necessary, to ensure impacts to EFH are minimal.

#### EFH Consultation

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires Federal agencies to consult with the Secretary of Commerce, through NOAA, with respect to “any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect EFH identified under this Act” (16 U.S.C. § 1855(b) (2)). The MSA defines EFH as “those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity” (16 U.S.C. §1802(10)). Our regulations further define EFH, adding, among other things, that “necessary” means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem (50 CFR 600.10).

In your June 14, 2016, letter, you request concurrence or advice regarding your conclusion that impacts to EFH and associated fisheries resources would be negligible to minor. However, absent review of a specific SAP, including surveys to be conducted and an assessment of the specific habitat to be impacted, we cannot complete our consultation or provide any specific EFH conservation

recommendations to minimize any potential impacts. We concur with some of the mitigation measures proposed in the EA, such as avoiding sensitive habitats and “soft start” procedures for the installation of piles. However, due to the generic nature of the EA, review of individual SAPs will be necessary for us to provide specific EFH conservation recommendations for a proposed location.

Each SAP should include information to allow us to complete our EFH consultation with a full analysis of impacts of specific actions on EFH. The SAP should include a description of the action, an analysis of potential adverse effects of the action on EFH and managed species, conclusions regarding the effects of the action, and proposed mitigation, if applicable. In addition to project plans, the SAP should include descriptions of habitat preferences and how federally managed species are using these habitats (i.e., foraging, spawning). The details provided in the SAP will allow us to determine if any site-specific EFH conservation recommendations are necessary to avoid, minimize or mitigate adverse impacts to EFH or federally managed species from a specific installation method or location.

In summary, in order for us to complete our EFH consultation on site assessment activities within the WEA, the individual SAP should be provided to us for review and comment prior to final approval. Upon review of each SAP, additional site-specific EFH conservation recommendations may be provided, as appropriate. Furthermore, any surveys that are conducted in support of, and in advance of the SAP, including geophysical and geotechnical surveys, should be coordinated with us prior to the commencement to ensure the surveys are not resulting in more than minimal impacts to EFH.

**Endangered Species Act (16 U.S.C. §§ 1531 et seq.)**

As discussed throughout the EA, several species listed as threatened or endangered under our jurisdiction occur throughout the WEA. The identification and description of these species and their seasonal occurrence in the WEA is accurately reflected in the EA. However, on page 83, you note that Atlantic sturgeon originating from four Distinct Population Segments (DPS), Gulf of Maine, New York Bight, Chesapeake Bay, and South Atlantic, may occur in the WEA. Atlantic sturgeon from the Carolina DPS may also occur in the WEA; therefore, we recommend that you include this species in the EA. We also note that while we recently proposed to designate critical habitat for all five DPSs of Atlantic sturgeon, the proposed designation does not overlap with the New York WEA (81 FR 35701; June 3, 2016).

Page 86 paragraph 4 line 5 reads, “the direct mortality of benthic invertebrates.” Please revise to read, “the direct mortality of benthic invertebrates.” We also note there are a number of references to the “Gulf of Mexico” DPS of Atlantic sturgeon, these should be corrected to the “Gulf of Maine” DPS of Atlantic sturgeon.

As described in Section 5.3.1.2 of the EA, we completed a programmatic consultation, pursuant to Section 7 of the ESA, in April 2013 on the effects of a number of the activities that may be carried out in the New York WEA and analyzed in the EA. This includes issuing a renewable energy lease; site characterization and archeological surveys including a) HRG surveys (primarily side scan sonars, echo sounders, and sub-bottom profilers), and b) geotechnical sub-bottom sampling (includes CPTs, geologic borings, vibracores, etc.); and, biological resource assessments to determine a) the presence/absence of threatened and endangered species, and b) the presence/absence of other sensitive biological resources or habitats. In this Biological Opinion, we concluded that these actions may adversely affect but are not likely to jeopardize the continued existence of Kemp’s ridley, green, or leatherback sea turtles; the NWA DPS of loggerhead sea turtles; North Atlantic right, humpback, fin, sei, or sperm whales, or any DPS of Atlantic sturgeon. The Standard Operating Conditions

outlined in Appendix B of the EA are consistent with our 2013 Biological Opinion. The 2013 Opinion outlines the procedures that will be followed to confirm that any activities proposed in the New York WEA are consistent with the scope of the activities assessed in the 2013 programmatic Opinion.

**Conclusion**

Thank you for the opportunity to provide comments on the EA for commercial wind lease issuance and site assessment activities within the NY WEA. The Memorandum of Understanding (MOU) between our agencies was signed on May 19, 2011, and addressed Coordination and Collaboration Regarding Outer Continental Shelf Energy Development and Environmental Stewardship. This MOU provides a solid framework for coordination, and we look forward to continued coordination with you on activities in the WEA as well as other future renewable energy activities. Should you have any questions regarding these comments, please contact Sue Tuxbury at (978) 281-9176 or by email ([susan.tuxbury@noaa.gov](mailto:susan.tuxbury@noaa.gov)). Should you have any questions regarding comments or consultation related to the ESA, please contact Julie Crocker in our Protected Resources Division at (978) 282-8480 or by email ([Julie.Crocker@noaa.gov](mailto:Julie.Crocker@noaa.gov)).

Sincerely,



John K. Bullard  
Regional Administrator

cc: HCD (Chiarella)  
PRD (Crocker)  
SFD (Pentony)  
Thomas Nies, NEFMC  
Christopher Moore, MAFMC  
Lisa Havel, ASMFC  
Joshua Gange, NOAA  
Betsy Nicholson, NOAA

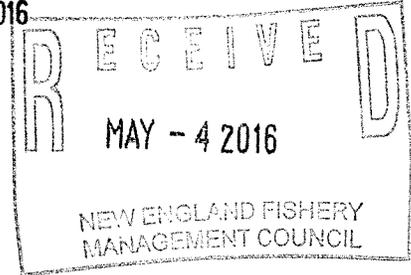
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NATIONAL MARINE FISHERIES SERVICE  
GREATER ATLANTIC REGIONAL FISHERIES OFFICE  
55 Great Republic Drive  
Gloucester, MA 01930-2276

MAY 3 2016



Peter Wepler, Chief  
Environmental Analysis Branch  
Planning Division  
New York District  
U.S. Army Corps of Engineers  
26 Federal Plaza  
New York, NY 10278-0900

RE: Fire Island Inlet to Montauk Point Reformulation Study

Dear Mr. Wepler:

We have reviewed the essential fish habitat (EFH) assessment dated December 17, 2015, and the information in your October 13, 2015, letter summarizing the Fire Island to Montauk Point Reformulation Study. The project area extends from Fire Island Inlet east to Montauk Point in Long Island, New York. This area includes the entire Atlantic coast of Suffolk County covering an ocean shoreline length of approximately 83 miles and over 200 miles of additional shoreline within the estuary system. The proposed action includes beach and dune restoration, inlet modifications, groin modifications, a breach response plan, and other non-structural measures, as well as, the continuation of the authorized dredging in Fire Island, Moriches and Shinnecock Inlets and the ebb shoals outside of the inlets with the placement of the dredged material in down drift areas. You previously consulted with us on a portion of this project under the Fire Island Inlet to Moriches Inlet; Fire Island Stabilization Project – Hurricane Sandy Reevaluation Report. We provided conservation recommendations for this Hurricane Sandy Reevaluation project in our letter dated May 14, 2014.

The Fish and Wildlife Coordination Act (FWCA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSA) require federal agencies to consult with one another on projects such as this that may affect EFH and other aquatic resources. Because this project affects EFH, 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 this consultation procedure.

***Fish and Wildlife Coordination Act***

The inlets of the project area provides access to the Great South Bay, Moriches Bay, Shinnecock Bay and their freshwater tributaries for many aquatic species including both state and federally managed species and their forage including bluefish (*Pomatomus saltatrix*), summer flounder (*Paralichthys dentatus*), scup (*Stenotomus chrysops*), black sea bass (*Centropristis striata*), Atlantic butterfish (*Peprilus triacanthus*), winter flounder (*Pseudopleuronectes americanus*), windowpane flounder (*Scophthalmus aquosus*), weakfish (*Cyanoscion regalis*), striped bass (*Morone saxatilis*), tautog (*Tautoga onitis*), spot (*Leiostomus xanthurus*), Atlantic croaker



(*Micropogonias undulatus*), blue crab (*Callinectes sapidus*), Atlantic menhaden (*Brevoortia tyrannus*), killifish (*Fundulus spp.*), Atlantic silversides (*Menidia menidia*), bay anchovies (*Anchoa mitchilli*) and other assorted baitfishes and shrimps (e.g., *Neomysis americana*, *Mysidopsis bigelowi*).

Anadromous species such as alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), and striped bass transit the inlet to reach spawning and nursery habitat in the freshwater portions of the system. Alewife and blueback herring, collectively known as river herring, spend most of their adult life at sea, but return to freshwater areas to spawn in the spring. Both species are believed to be repeat spawners, generally returning to their natal rivers (Collette and Klein-MacPhee 2002). In the Mid-Atlantic, landings have declined dramatically since the mid-1960s and have remained very low in recent years (ASMFC 2007). Because landing statistics and the number of fish observed on annual spawning runs indicate a drastic decline in alewife and blueback herring populations throughout much of their range since the mid-1960's, river herring have been designated as a Species of Concern by NOAA. Species of Concern are those species about which we have concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act (ESA). We wish to draw proactive attention and conservation action to these species.

Catadromous American eel (*Anguilla rostrata*) spawn in the Sargasso Sea and transit the inlet as elvers to the freshwater habitats in bays' tributaries. They inhabit these freshwater areas until they return to the sea through the Moriches, Shinnecock and Fire Island Inlets as adults. According to the 2012 benchmark stock assessment, the American eel population is depleted in U.S. waters. The stock is at or near historically low levels due to a combination of historical overfishing, habitat loss, food web alterations, predation, turbine mortality, environmental changes, toxins and contaminants, and disease (ASMFC 2012). In order to minimize the adverse effects on anadromous and catadromous species, we recommend dredging within the inlet be avoided from March 1 through June 30 to avoid impeding the migration of these species into the inlet and to their upstream habitats.

#### **Magnuson Stevens Fisheries Management and Conservation Act (MSA)**

The project area has been designated as EFH for a number of federally managed species including Atlantic butterfish (*Peprilus triacanthus*), Atlantic sea herring (*Clupea harengus*), bluefish (*Pomatomus saltatrix*), black sea bass (*Centropristis striata*), haddock, (*Melanogrammus aeglefinus*), long-finned squid (*Loligo pealei*), monkfish (*Lophius americanus*), ocean pout (*Macrozoarces americanus*), pollock (*Pollachius virens*), red hake (*Urophycis chuss*), scup (*Stenotomus chrysops*), short-finned squid (*Illex illecebrosus*), spiny dogfish (*Squalus acanthias*), summer flounder (*Paralichthys dentatus*), whiting (*Merluccius bilinearis*), winter flounder (*Pseudopleuronectes americanus*), windowpane flounder (*Scophthalmus aquosus*), witch flounder (*Glyptocephalus cynoglossus*), yellowtail flounder (*Limanda ferruginea*), king mackerel (*Scomberomorus cavalla*), Spanish mackerel (*Scomberomorus maculatus*), cobia (*Rachycentron canadum*), clearnose skate (*Raja eglanteria*), little skate (*Leucoraja erinacea*), winter skate (*Leucoraja ocellata*), ocean quahog (*Arctica islandica*), and surf clam (*Spisula solidissima*).

The project area is also EFH for several highly migratory species including common thresher shark (*Alopias vulpinus*), white shark (*Carcharodon carcharias*), tiger shark (*Galeocerdo cuvieri*), basking shark (*Cetorhinus maximus*), blue shark (*Prionace glauca*), dusky shark (*Carcharhinus obscurus*), sandbar shark (*Carcharhinus plumbeus*), sand tiger shark (*Odontaspis taurus*), shortfin mako shark (*Isurus oxyrinchus*), bluefin tuna (*Thunnus thynnus*), skipjack tuna (*Katsuwonus pelamis*), and yellowfin tuna (*Thunnus albacares*). Sand tiger and dusky sharks have also been listed as Species of Concern by NOAA.

The EFH assessment evaluates some of the potential impacts to EFH that could result from the implementation of the Tentative, Federally-Supported Plan (TFSP), but it lacks any discussion of the specific details of the project components including the areal extent of the sand placement below the high tide line and the amount and extent of dredging within the inlets and ebb shoals. The offshore borrow areas are not identified and there are no estimates on the amount of material that will be removed or the frequency of the disturbance of each borrow area or inlet. Detailed, site specific information on the borrow areas and inlet ebb shoals is also lacking. The absence of these details prevents a full evaluation of the direct, indirect, individual and cumulative effects of the actions proposed. As a result, we can only provide general comments and EFH conservation recommendations. Additional consultation will be necessary for each individual action or dredging event undertaken as part of this project, so that site specific EFH conservation recommendations can be developed. We can work with your staff to complete a programmatic consultation for this entire project to reduce the need for individual consultations, but the additional information discussed above will be needed as part of any programmatic consultation.

The dredging of sand for beach nourishment and to construct feeder beaches has the potential to impact both the EFH of a particular species as well as the organisms themselves in a variety of ways. Dredging can result in the impingement of eggs and larvae in the dredge plant and create undesirable suspended sediment levels in the water column. Increased suspended sediment levels can reduce dissolved oxygen, can mask pheromones used by migratory fishes, and can smother immobile benthic organisms and newly-settled juvenile demersal fish (Auld and Schubel 1978; Breitburg 1988; Newcombe and MacDonald 1991; Burton 1993; Nelson and Wheeler 1997). Sustained water column turbulence can reduce the feeding success of sight-feeding fish such as winter flounder and summer flounder.

The inlets within the project area provide a hydrologic connection between the marine and estuarine environments, and are responsible for regulating local salinity regimes, and serve as the conduit for planktonic exchange and related movements of diadromous species, estuary dependent fishes, and invertebrates between the ocean and inland bays. Dredging within the inlet can impede the movements of fish into and out of the back bays. Dredging can also remove the substrate used by federally managed species as spawning, refuge and forage habitat. Benthic organisms that are food sources for federally managed species may also be removed during the dredging. These impacts may be temporary if the substrate conditions return to preconstruction condition and benthic community recovers with the same or similar organisms. The impacts may be permanent if the substrate is altered in a way that reduces its suitability as habitat, if the benthic community is altered in a way that reduces its suitability as forage habitat or if the dredging occurs so often that the area does not have time to recover.

Summer flounder may be impacted adversely by dredging the inlets in the project area. In a study of larval movements in Indian River, Delaware, Targett and Rhodes (2008) study found, ingress of summer flounder larvae peaked bimodally in December and mid-January with collections continuing through April. Movement into the estuary may involve intermittent settling to take advantage of tidal stream transport before permanent settlement once metamorphosis is complete (Able and Fahay 1998). Residual bottom inflow, a result of more dense oceanic water intruding beneath more buoyant outflow, provides some fishes with a mechanism of ingress (Weinstein *et al.*, 1980 in Rhodes 2008). Miller *et al.* (1984) proposed that to gain entry into North Carolina inlets spot (*Leiostomus xanthurus*), Atlantic croaker, summer flounder, and southern flounder (*Paralichthys lethostigma*) remain near the bottom (Rhodes 2008). Dredging and the placement of the pipeline across the bottom of the inlet may impede this inshore movement of summer flounder larvae. Larvae may also be entrained by the dredge as they move through the inlet.

Winter flounder also transit the inlets to reach spawning areas within the estuarine portions of the project area when water temperatures begin to drop in the fall. Tagging studies show that most return repeatedly to the same spawning grounds (Lobell 1939, Saila 1961, Grove 1982 in Collette and Klein -MacPhee 2002). They typically spawn in the winter and early spring although the exact timing is temperature dependent and thus varies with latitude (Able and Fahay 1998), but movements into these spawning areas occurs earlier, generally from mid-to late November through December (B. Phelan personal communication, January 13, 2014). Winter flounder have demersal eggs that sink and remain on the bottom until they hatch. After hatching, the larvae are initially planktonic, but following metamorphosis they assume an epibenthic existence. Winter flounder larvae are negatively buoyant (Pereira *et al.* 1999), and are typically more abundant near the bottom (Able and Fahay 1998). These life stages are less mobile and thus more likely to be affected adversely by dredging. To minimize impacts to winter flounder early life stages and their EFH, we recommend that dredging in the inlet and ebb shoals be avoided from January 15 to May 31 of each year.

According to the EFH assessment, the ebb shoals and offshore borrow areas provide habitat for surf clams (*Spisula solidissima*) and ocean quahogs (*Artica islandica*) although the document does not provide information of the specific densities of these species throughout the borrow sites. The assessment concludes that, where present in the borrow areas, these species will be lost during dredging, but that the "seeding" mechanisms of the surf clam and ocean quahog are at work continuously and, as a result, the populations will be reestablished after dredging. However, the EFH assessment does not provide any information on how much of each borrow area will be dredged and how often. Consequently, it is not possible to determine the scope of the impacts to surf clams and ocean quahogs or if the populations will have sufficient time between dredging events to recover. To ensure impacts to surf clams and ocean quahogs are minimized, the borrow areas should be surveyed prior to each dredging cycle and areas of high densities should be avoided. Copies of the shellfish survey results should also be provided to us prior to any dredging in the borrow area.

The use of the inlets and inlet ebb shoals as borrow areas can also affect EFH adversely through impacts to prey species. The EFH final rule states that the loss of prey may be an adverse effect on EFH and managed species because the presence of prey makes waters and substrate function

as feeding habitat and the definition of EFH includes waters and substrate necessary to fish for feeding. Therefore, actions that reduce the availability of prey species, either through direct harm or capture, or through adverse impacts to the prey species' habitat may also be considered adverse effects on EFH.

Stemile et al. (2000) report that winter flounder diets include the siphons of surf clams. Buckel and Conover (1997) in Fahay et al. (1999) reports that diet items of juvenile bluefish include *Alosa* species. As a result, activities that adversely affect the surf clams or the spawning success and the quality of the nursery habitat for anadromous fish can adversely affect the EFH for winter flounder juvenile and bluefish by reducing the availability of prey items. Water quality degradation, increased turbidity, noise and vibrations from dredging operations may impede the migration of anadromous fish through the inlets to their upstream spawning grounds.

The Mid-Atlantic Fisheries Management Council (MAFMC) has developed policy statements on beach nourishment activities that may affect federally managed species under their purview including summer flounder, scup, black sea bass, monkfish and butterfish. These policies are intended to articulate the MAFMC's position on various development activities and facilitate the protection and restoration of fisheries habitat and ecosystem function. The MAFMC's policies on beach nourishment are:

1. Avoid sand mining in areas containing sensitive fish habitats (e.g., spawning and feeding sites, hard bottom, cobble/gravel substrate, shellfish beds).
2. Avoid mining sand from sandy ridges, lumps, shoals, and rises that are named on maps. The naming of these is often the result of the area being an important fishing ground.
3. Existing sand borrow sites should be used to the extent possible. Mining sand from new areas introduces additional impacts.
4. Conduct beach nourishment during the winter and early spring, when productivity for benthic infauna is at a minimum.
5. Seasonal restrictions and spatial buffers on sand mining should be used to limit negative impacts during fish spawning, egg development, young-of-year development, and migration periods, and to avoid secondary impacts to sensitive habitat areas such as SAV.
6. Preserve, enhance, or create beach dune and native dune vegetation in order to provide natural beach habitat and reduce the need for nourishment.
7. Each beach nourishment activity should be treated as a new activity (i.e., subject to review and comment), including those identified under a programmatic environmental assessment or environmental impact statement.
8. Bathymetric and biological monitoring should be conducted before and after beach nourishment to assess recovery in beach borrow and nourishment areas.

9. The effect of noise from mining operations on the feeding, reproduction, and migratory behavior of marine mammals and finfish should be assessed.
10. The cost effectiveness and efficacy of investments in traditional beach nourishment projects should be evaluated and consider alternative investments such as non-structural responses and relocation of vulnerable infrastructure given projections of sea level rise and extreme weather events.

In addition to the EFH conservation recommendations provided below, the MAMFC's policies should be incorporated in the final design of this project and its long-term management plan.

#### **Essential Fish Habitat Conservation Recommendations**

Pursuant to Section 305 (b) (4) (A) of the MSA, we recommend the following EFH conservation recommendations to minimize adverse effect on EFH and federally managed species.

1. Until a programmatic consultation is completed, reinitiate consultation prior to each dredging event.
2. To maintain access to estuarine areas of EFH for summer flounder, winter flounder, bluefish and others including their prey species, dredging in the inlets and ebb shoals should be avoided from January 15 to June 30 of each year. At other times of the year, at least 50 % of the channel should remain unobstructed to allow ingress and egress of aquatic species.
3. The intakes on the dredge plant should not be turned on until the dredge head is in the sediments and turned off before lifted to minimize larvae entrained in the dredge.
4. Dredging within the borrow areas should be designed and undertaken in a manner that maintains geomorphic characteristics of the borrow area and best management practices such as not dredging too deeply and leaving similar substrate in place to allow for the benthic community recovery should be employed.
5. Areas of high surf clam densities within the borrow area should be avoided.

Please note that Section 305 (b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH conservation recommendations, including the measures adopted by you for avoiding, mitigating, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, Section 305 (b)(4)(B) of the MSA also indicates that you must explain your reasons for not following the recommendations. Included in such reasoning would be 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 effect pursuant to 50 CFR 600.920 (k). Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CRF 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for the above EFH conservation recommendations.

We look forward to our continued coordination with your office on this project as it moves forward. As stated above, because the EFH assessment provided lacks sufficient detail on each action proposed as part of the TFSP, individual consultations are needed prior to the initiation of each activity so that site specific conservation recommendations can be developed. We can work with your staff to complete a programmatic consultation to reduce the need for individual consultations. If you have any questions or need additional information, please do not hesitate to contact Karen Greene at [karen.greene@noaa.gov](mailto:karen.greene@noaa.gov) or (732) 872-3023.

Sincerely,



Louis A. Chiarella,  
Assistant Regional Administrator  
for Habitat Conservation

cc: NYD Corps – R. Smith  
PRD Daniel Marrone  
NEFMC – T. Nies  
MAFMC – C. Moore

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