

#9a

Revised

ADDITIONAL CORRESPONDENCE

Intershell International Corp.

9 Blackburn Drive

Gloucester, MA 01930

978-281-2523

New England Fisheries Management Council

01/26/2022

50 Water Street

Newburyport, MA 01950

Att: Eric Reed, Chairman

Tom Nies, Executive Director

Re: GSCHMA and Nantucket Shoals Surf Clam EFH

Gentlemen,

Monte Rome here. I am writing on behalf of our processing Company, Intershell, and the following Surf Clam Vessels:

F/V Tom Slaughter, Permit # 320695

F/V Tom Slaughter II, Permit #320673

F/V Tom slaughter III, Permit # 310993

F/V Bing Bing, Permit # 250754

Something Went Wrong

We know for sure that something has gone very wrong with the council's final vote on December 5th, 2018, concerning the EFH where the New England Surf Clam Industry raw material source is harvested.

In review of many documents, I find the most significant deficiency in the rule making process to have been the lack of adherence of the work previously done over decades by MAFMC in pursuit of accurate identification of Surf Clam EFH. Without disagreement, the Surf Clam and Ocean Quahog Management Plan is the most successful fishery management plan ever implemented from the requirements embodied in the MSA. The body of work by the many dedicated people who performed these studies and wrote and published the definitive papers concerning the constituents of the Surf Clam EFH is a true testament to the validity of the identification and description of Surf Clam EFH and how it functions. This work has guided the Surf Clam Industry to enjoying the most successfully managed fishery on the East Coast of the United States.

Surf Clam EFH

As Industry proponents we should not be tasked to define Surf Clam EFH in our area. The work on this aspect has already been done, proofed, verified and accepted. Similarities regarding Surf Clam EFH are well established and a good portion of the GSCHMA is clearly Surf Clam EFH, by definition, substrate, and productivity. We have reviewed many published reports containing the specifics of the EFH for surf clams and all interested parties must arrive at the same conclusion:

Amendment 13 of the Surf Clam and Ocean Quahog Management Plan definitively identifies and describes Surf Clam EFH as it has been researched, studied and applied to this specie. That study has revealed that the effects of surf clam dredging, while adversely impacting the localized area dredged, are limited to the specific areas dredged and adverse impacts to the bottom substrate and benthic community that occur when harvesting, are **temporary** and in accordance with many, many studies on the subject. None of us can change this fact which is supported by science from the Canadian Maritimes to Virginia – the range of the Atlantic American Surf Clam. We cannot change this body of detailed information which applies to the Surf Clam EFH which is part of the GSCHMA.

An important portion of Nantucket Shoals and the Surf Clam EFH habitat which it represents qualifies as this type of Surf Clam EFH. There is little if no overlap of finfish EFH in the area that the logbook and VMS tracks ⁽¹⁾ reveal as to where in the GSCHMA the NE Surf Clam Fleet has been harvesting surf clams for the past 40 years. As noted in the literature, the areas referenced are exact type areas where other surf clam habitats are prosecuted – in sandy substrates in a dynamic, high energy, area of the ocean.

Habitat Cancellation and Errors in Coding

We witnessed a lot of concern from Council members and associates about the potential for an adjacent habitat that might be affected by harvesting in the Surf Clam EFH on Nantucket Shoals, therefore the OHA 2 Committee and the NEFMC cancelled most of the productive Surf Clam EFH in the area. However, the OHA 2 Committee erroneously coded this entire area, which includes considerable Surf Clam EFH, as finfish EFH, where spawning, breeding, and growth to maturity of finfish occur. This theoretical consideration that the GSCHMA is the indicated EFH is not supported by recent available science for the juvenile and spawning Codfish populations near this area. Studies have confirmed that this activity occurs predominately in the Great South Channel on the Eastern Side but on both sides and then in a northerly direction towards the Gulf of Maine.

FEK

Even armed with the FEK from cod fishermen over the past century, the science from contemporary investigator, Greg Decelles, et al 2017, ⁽²⁾, and OHA2 trawl survey studies ^(3,4), reveal that the spawning of codfish occurs in aggregate abundance in the actual Eastern GSC, and in minor volume on the outskirts of the GSCHMA, with no apparent aggregation in the GSCHMA as compared to the activity of both spawning and juvenile cod in the Channel itself.

The Council relied on FEK for most of the information that was applied to the supposition that a substantial portion of the GSCHMA area (Nantucket Shoals) is a Cod spawning area. While we accept and appreciate the information provided by FEK concerning Codfish, we will always believe that in a decision required situation like concerns for this area has demanded, FEK from **both sides** is the only equitable way to use FEK in rule making. In this instance, the surf clammers and their FEK was never

requested and to date, we do not know of any outreach to surf clam fishermen for their FEK, so the PDT's reliance on this one-sided detail which influenced the outcome of the Framework, should be discounted.

The studies referenced add important documentation about the spawning patterns of codfish in recent years which only means that we can eliminate one exceptional concern for the Council by eliminating their theory that surf clam dredging on the Nantucket Shoals affects Codfish spawning, and juvenile cod fish growth, and ends for now the idea that the Shoals are Cod EFH.

MAFMC Definition

Other concerns indicated by the NEFMC action that deviate from the habitat studies by MAFMC described in Amendment 13 to the SCOQ Fisheries Management Plan are the Plan's description for adverse effects. These effects are indicated that the way the surf clam fishery is currently prosecuted, in sand habitats, there are potentially localized impacts to biological and physical attributes of the areas fished, however the recovery time is relatively short - hours to months, and the adverse impacts to high energy Surf Clam EFH can be considered TEMPORARY.

Bottom Swap

It was mentioned at the Jan 18th NEFMC Habitat zoom webinar that one concern was that there would have to be a resultant 'swap' of area if the surf clam habitat was restored to a full exemption for open fishing. There is no commercially viable alternative of Surf Clam EFH in the NE waters for this to take place however, in contrast to how assistance for the Surf Clam Industry was considered and in relation to how the scallop and trawl fisheries were considered by the Council, please note the following regarding the handling of the trawl and scallop fisheries that are prosecuted in the HAPC of the Eastern Great South Channel:

Volume 6 of OHA2 FEIS, (5) indicated the flexibility that the Council may take and stated as follows: "The preferred alternative restrictions in the Great South Channel HMA, (Great South Channel East) will minimize adverse impacts of fishing within parts of the HAPC. A variation of the GSCHMA (Great South Channel East) was considered by the Council, but due to substantial potential displacement of scallop dredge and groundfish trawl effort, the area was viewed as not practical and was not selected during final action".

Instead of the identified HAPC and exclusion of the trawlers and scallopers to protect Juvenile Cod in that HAPC, the current Nantucket Shoals GSC HMA was chosen as the 'swap' habitat for scallopers and trawlers (along with other bottom tending mobil gear users) and others who did not catch fish or scallops there anyway . These trawl and scallop fishers use bottom tending mobile gear and as such, clambers got lumped into this group. Please give serious consideration to 'swapping' the Surf Clam EFH of the GSCHMA for the area of McBlair Shoal, and other portions of the HMA which do not contain commercial quantities of surf clams. It is time for the MAFMC to speak up on behalf of this segment of the Surf Clam Industry they have so carefully researched and promoted for decades.

One Viable Area – With demonstrated recovery attributes

Commercial Surf Clammers and Processors have only one viable area which will support the NE Surf Clam Industry, the Surf Clam EFH in the GSCHMA. The Council closed most of the Surf Clam EFH in the

GSCHMA which remains closed to surf clamming except for areas which are non-productive, or which have EFPs. The GSCHMA is the only commercially viable Surf Clam EFH in the near shore Federal waters of New England. FEK tells us that even though it is the only area for commercial harvest, it has also been a highly regenerative area in comparison to any Surf Clam EFH anywhere along the East Coast.

Data Gaps and Intershell

The PDT has referenced many data gaps in the research applied to the development of the Clam Framework adjustment dated 7/22/2019. Intershell represents its own data gap as part of the plan. Interestingly the plant and vessels owned by Intershell and the several vessel entities controlled by Intershell were omitted as stakeholders in this action. In correction of this omission please note that Intershell has been processing surf clams since the mid-1990s and has owned vessels for this purpose since 1996. We predated Nantucket Sound Seafoods as harvesters and processors and currently operate 4 surf clam vessels, all of which have had landings reported to NOAA that clearly indicate that these vessels have harvested on the Nantucket Shoals Surf Clam EFH for the past 8 years.

Our Objective to Work with The Council

Our objective is to work with the Council, PDT and Habitat Committee so that the productive areas of the GSCHMA are properly coded and that the Surf Clam EFH within the HMA will be able to be accessed without the need for EFPs. As harvesters we have demonstrated our ability to stay within the boundaries of the areas currently set up as exempt areas where we have been relegated to harvest surf clams since April 2019. Maintaining position within any prescribed area has been established.

In moving forward, please note that F/V Tom Slaughter and F/V Tom Slaughter 3 will be submitting EFP's to conduct Multibeam Sonar and Side-scan Sonar research in the areas prescribed in their respective EFP applications. This first EFP request will endeavor to provide the NEFMC with base maps containing position, time, area bathymetry, hardness, and backscatter data for review by regulators. In addition to the mapping which will be presented, several items of physical evidence of bottom substrate will be presented. Stellwagen Bank Fisheries, owner of F/V Tom Slaughter has been utilizing this acoustic equipment since 2019 and has mapped all areas in which it has been harvesting on the Shoals since that time. F/V Tom Slaughter 3 is currently in the shipyard and will install a side scan sonar to be used in a subsequent EFP application.

Economic Concerns: As expressed in the comments made at the January 18th habitat webinar, landings from the vessels operated by Intershell follow:

Sales and landings of surf clams by all vessels combined:

2018..... 86,542 bushels

2019..... 76,416 “

2020..... 66,311 “

2021..... 46,058 “

Sales of bushels from our vessels have declined by 47%

Pounds of meat processed year to year, 2020-2021:

2020.....788,556 lbs.

2021.....498,090 lbs.

Decline of 37% YTY.

Capital Investment Losses:

In addition to the decline in both harvest and plant revenues to below breakeven thresholds due to the decline in raw materials, all capital investment in vessels and plants and equipment has been put at great risk and more than likely may become a complete loss. I ask, who would be the 'maybe' buyer(s) of surf clam vessels and surf clam processing plants at that point?

Plea to the Council Chairman Reed and Executive Director Nies:

It is our suggestion that we (all NE Surf Clam Industry Participants) immediately meet with your prescribed committee and quickly develop a cohesive plan so that the NE Surf Clam Industry can stabilize and proceed as a healthy Fishery in the New England Area.

Please call me if you might have any questions. 978-815-2361. Thank you for considering our situation.

(1) (Map 6, page 17, 4/24/2018, Habitat PDT to Committee re: clam framework document)

(2) (Map 2, Page 11, dated April 24, 2018 ,Habitat PDT to Committee re Clam Framework)

(3) (Map 246, OHA2 FEIS-Great South Channel Juvenile Cod HAPC page 393)

(4) (Map 247, OHA2 FEIS – Great South Channel Juvenile cod caught in the trawl surveys conducted since 2000 page 394)

(5) (OHA2 FEIS-Volume 6, Compliance with the EFH provisions of MSA)



Conducting scientific research projects that support sustainable fisheries, aquaculture, and agriculture

277 Hatchville Road • East Falmouth, MA 02536
 Tel: (508) 356-3601 • Fax: (508) 356-3603
 Website: www.coonamessettfarmfoundation.org

GSC HMA Survey – Research Update EFP #19066

Season/Year	Number of Trips	Number of Tows	Area Swept (km ²)
Summer 2020	15	421	0.41
Fall 2020	26	884	0.83
Winter 2020-21	12	486	0.5
Spring 2021	15	508	0.47
Summer 2021	2	65	0.055
Fall 2021	24	626	0.68
Winter 2021-22*	6	146	0.16
Total	100	3,136	3.105

*As of 1/20/22

	Bushels Landed Under EFP	Ex-Vessel Value
2020	22,784	\$524,032
2021	19,500	\$448,500
2022	416	\$9,568

	Generated Revenue
Fishing trip	\$8,832
At-sea tech	-\$350
	\$8,482
\$2/bushel set aside	-\$768
Landings value per trip	\$7,714
100 total trips	\$771,400
Total bushels landed	42,700
Amount for research	\$85,400

	CFF Expenditures
Personnel	\$123,500
Equipment/supplies	\$15,250
Total	\$138,750

An individual fishing trip averages 12 cages landed, 32 bushels per cage (12*32=384 bushels/trip at \$23 per bushel). The at-sea technician costs \$350/day and the research set aside amount is \$2/bushel.



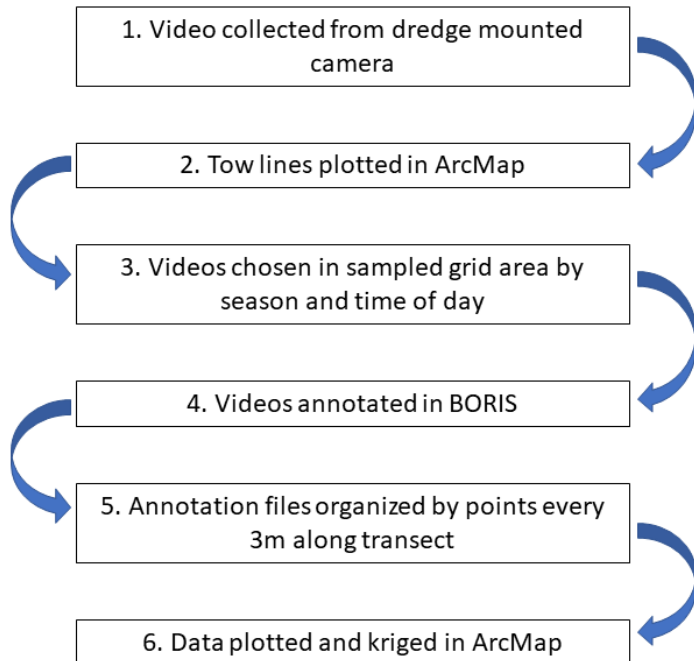
Conducting scientific research projects that support sustainable fisheries, aquaculture, and agriculture

277 Hatchville Road • East Falmouth, MA 02536
 Tel: (508) 356-3601 • Fax: (508) 356-3603
 Website: www.coonamessettfarmfoundation.org

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Summer 2020	Gray	Gray	Gray	Gray	Gray	Gray
Fall 2020	Gray	Gray	Gray	Gray	Gray	Gray
Winter 2020-21	Gray	Gray	Gray	Blue	Blue	White
Spring 2021	Gray	Gray	Gray	White	White	White

Gray = accomplished

Blue = currently working towards finishing





Conducting scientific research projects that support sustainable fisheries, aquaculture, and agriculture

277 Hatchville Road • East Falmouth, MA 02536

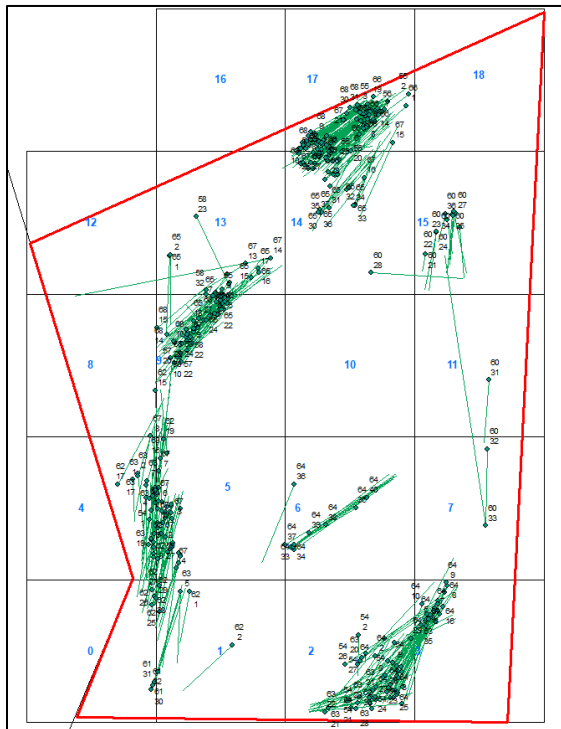
Tel: (508) 356-3601 • Fax: (508) 356-3603

Website: www.coonamessettfarmfoundation.org

1. Example of video collected Summer 2020 during the night.



2 and 3. Spring 2021 day tows shown in sampling grid.

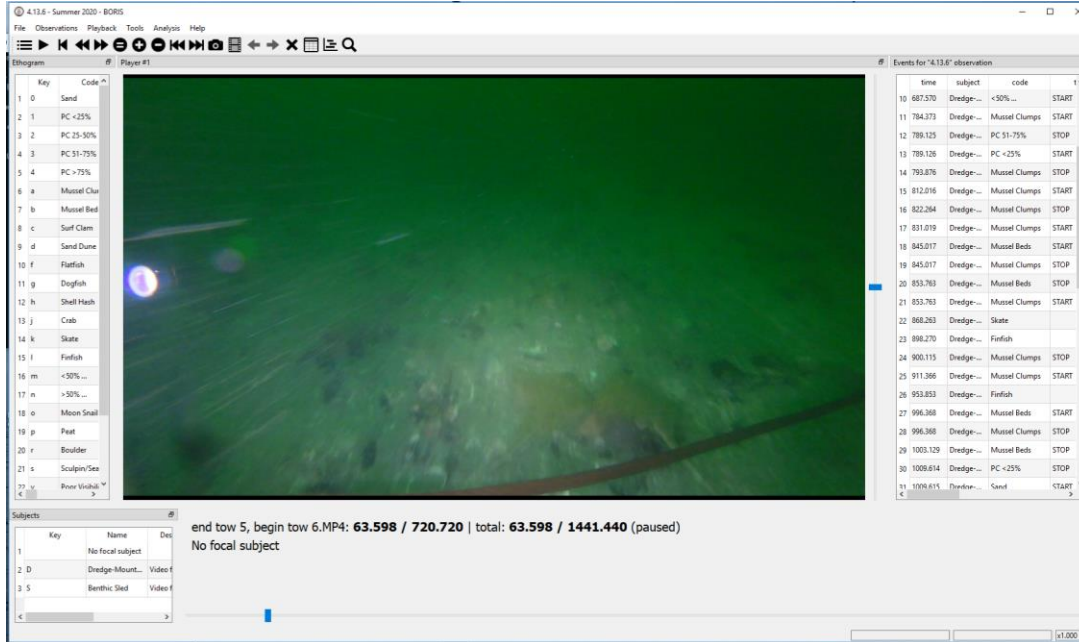




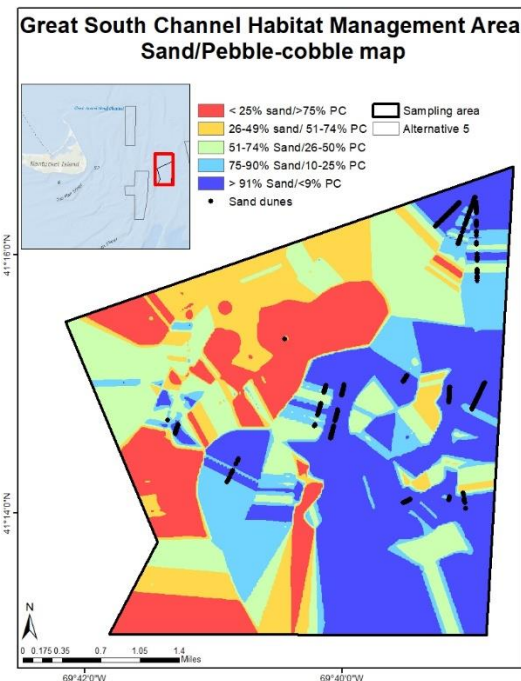
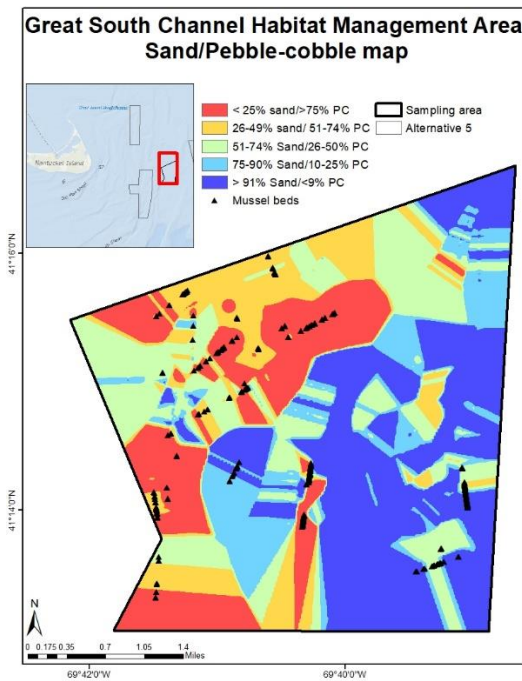
Conducting scientific research projects that support sustainable fisheries, aquaculture, and agriculture

277 Hatchville Road • East Falmouth, MA 02536
 Tel: (508) 356-3601 • Fax: (508) 356-3603
 Website: www.coonamessettfarmfoundation.org

4. BORIS annotation scheme.



6. Rough drafts of summer 2020 habitat distribution maps showing (1) mussel beds and (2) sand dunes on top of kriged pebble/cobble and sand coverage.





Conducting scientific research projects that support sustainable fisheries, aquaculture, and agriculture

277 Hatchville Road • East Falmouth, MA 02536

Tel: (508) 356-3601 • Fax: (508) 356-3603

Website: www.coonamessettfarmfoundation.org

GSC HMA EFP General Timeline

Date	Action
6/7/2019	Coonamessett Farm Foundation (CFF) initial EFP request
8/7/2019	Response from Regional Administrator (RA) with concerns
8/23/2019	CFF response to RA
11/8/2019	EFP application sent
5/26/2020	RA replies to New England Fishery Management Council Chairman
6/3/2020	EFP #19066 granted
3/24/2021	EFP application sent for Rose & Crown and Davis Bank East aka "Phase II"
5/12/2021	Letter from RA received EFP Phase II denied request citing need for results from Phase I
5/24/2021	Request for extension for EFP #19066 submitted
5/27/2021	EFP #19066 Expired
8/4/2021	EFP #19066 extension granted for 6 months from ask date
8/18/2021	EFP #19066 extension granted for 6 months from issuance
9/8/2021	EFP Rose & Crown and Fishing Rip submitted
11/19/2021	Letter from RA received EFP Rose & Crown and Fishing Rip denied citing need for results from Phase I

January 26, 2022

Sent via email to: comments@nefmc.org

Eric Reid, Council Chair
Tom Nies, Executive Director
New England Fisheries Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

Dear Chairman Reid, Director Nies, and Council Members:

RE: Request for Secretarial Emergency Action Related to the Great South Channel
Habitat Management Area

Nantucket Sound Seafood, LLC, F/V Maude Platt, Inc., Nantucket Sound Seafood, Inc., and Stonehorse Fisheries, Inc., located in Southeastern Massachusetts, employ an average of fifty people total, including clam boat captains and crews and processing plant employees. I began working in the clamming business when I was a teenager by working on a clam vessel. The clamming industry has provided income first for me individually and then has provide for my family. I now have three vessels, which are owned by the above listed entities. I also now have a clam processing plant in New Bedford, Massachusetts, owned by Nantucket Sound Seafood, LLC. Between my vessels, I have historically employed three Captains and twelve crew members. At my processing plant I have historically employed forty people, in full-time positions (5 days a week, 8 hour shifts with opportunities for overtime). These individuals that I employ provide for their families through their work in the clam industry. They also contribute greatly to their communities' economic stability.

For fishing trips, my vessels and crew purchase gas, fishing supplies, fishing gear, boat supplies, and food all from local ancillary businesses. My crews' pay from the vessel also allows them to provide for their families and contribute to the local economy when they return to port. The purchases that my crew makes on-shore both for the vessel and as a result of their earnings from their work on the vessel support local businesses and the families of those employed at the local businesses.

To run my processing plant on a daily basis, in addition to the supplies needed to shuck the clams, I purchase labels, packaging and containers for finished product and other supplies from local ancillary businesses. My processing plant provides finished product to local restaurants, distributors, and food manufacturers. These are local businesses that seek quality product at an affordable price so that they can pass this quality and pricing onto the local, consuming public. My processing plant's purchases and my employees' purchases from their earnings all positively impact the local economy by

providing income to local businesses which in turn employ individuals who can also contribute to the local economy and provide for their families.

I have been harvesting clams in Nantucket Shoals for much of my career. Nantucket Shoals is a very dense clam area which is extremely productive for clam boats and in turn for clam processing plants. The Great South Channel HMA itself has a consistently high population of clams. The HMA is also a volatile, ever changing current due to the high volatility currents. In my thirty years of fishing I have not seen the high clam population in the HMA duplicated anywhere else on the east coast. The harvest in the other clamming grounds outside of the HMA cannot replace the number of bushels that I am able to harvest within the HMA area. In other words, clams not harvested within the HMA cannot be “made-up” by simply harvesting clams from other grounds.

In my experience the areas that have had the greatest population of clams are Rose and Crown and Davis Bank East. Also in my experience, the clam volume in the HMA areas replenishes at a quick rate. The fleet that harvests in the HMA area is made up of about a dozen small, shallow draft vessels. Large, deep draft vessels cannot maneuver through the volatile currents of the HMA and therefore do not and cannot participate in this fishery. The fleet harvesting within the HMA seeks out soft bottom areas as the hard bottoms with cobbles and boulders cause great, expensive damage to our gear.

In April 2018, the Council designated the HMA and allowed for a one-year exemption to the ban on clamming. The purpose of the exemption was, in part, to allow the Council to gather information about the habitat, specifically cod and groundfish, and the impacts of clamming on the habitats, if any.

During the remainder of 2018, I attended multiple Habitat Committee meetings, PDT meetings, and Council meetings, during all of which it was admitted on the record that there was no reliable science about the habitat in the HMA. Nor was there was there any scientific research being conducted regarding the HMA and impacts of clamming on the habitats. The Council voted on the Framework adjustment in 2018 (which took effect in June 2020)¹ without any relevant scientific evidence. This was devastating to the surf clam industry. As you are aware, the Framework adjustment closed Rose and Crown and Davis Bank East to clamming and allowed some clamming in McBlair, Old South, and Fishing Rip.

Despite my disappointment in the Council’s vote, I sought to be part of the solution to this issue. Therefore, I looked to become a part of an industry/governmental collaboration of data collection and scientific information, which was voted on favorably by the Council. I believed that it was important for

¹ For approximately the year prior to the Framework took effect, the clam industry was completely barred from harvesting within the HMA.

Nantucket Sound Seafood to be a part of the solution to gaining knowledge about the habitat within the HMA. I knew that if scientific information was more readily available, a more appropriate Framework, based upon the best available science, could be developed for the HMA. So, I decided to take part in an Exempted Fishing Permit (“EFP”) project and use three of my small, shallow dredge vessels, the *Miss Iris*, the *Seafox*, the *Miss Kara*, to assist in collecting data which could be used by scientists to gain knowledge about the habitat and generally about the HMA.

For the past two years, my vessels have been collecting data, under the EFP, within a seven (7) square mile radius within the Rose and Crown area. I have been working with NOAA, GARFO, Coonamessett Farm and Ron Smolowitz throughout this timeframe. Also, during this timeframe, the Habitat Committee has been regularly updated on the scientific findings from the EFP work.

By taking part in the three vessel EFP, I volunteered to absorb all expenses associated with going out (including paying my Captain and crew members, gas, boat supplies, and paying an observer) to collect initial data and information regarding the habitat, ecosystem, and bottom of the HMA, meaning no dredging took place during these trips. Then, my crew went back out and dredged for clams while recording the impacts that the dredging had on the area. I was able to keep my catch and process it in my processing facility. This provided my businesses with enough income to cover the expenses required to continue to participate in the EFP, including paying my Captain and crew and processing plant workers. The current EFP expires on February 4, 2022.

It is my understanding that the seven square miles within which we have collected data has revealed that the ocean currents here are extremely volatile, there are virtually no cod or cod habitats, and that the combination of the ocean currents and clam dredging are likely important components to maintaining the overall good health of the ecosystem of not only within the HMA, but also in areas south of the HMA (the areas South of the HMA do contain cod and other groundfish species).

The seven square miles is an extremely small box and small portion of the overall HMA. Based upon my experience over the last two years with the EFP, I am impressed with the scientific information that has already been gained by the data collection. More data collection must be completed to gain further knowledge about the HMA. The EFP has been a cost-effective solution which allows the Council to gain knowledge about the HMA and also allow the vessels participating in the EFP to cover their costs associated with data collection. I ask the Council to allow for the continuance of the EFP program to include continued data collection, including in other areas of the HMA and/or an enlargement of the seven square miles within the Rose and Crown area. I also believe that Davis Bank East is an important area to complete data collection and that the EFP should be expanded into this area. It would also be

highly beneficial if additional vessels were permitted to participate in the EFP. This would allow more data to be collected within a shorter period of time and increase viability within the industry.

Despite my participation in the EFP and harvesting clams in permitted areas both in and outside of the HMA, the economic impacts to Nantucket Sound Seafood as a result of the current clamming regulatory framework as it relates to the HMA has threatened the viability of many businesses, both on and off shore. The negative economic impacts upon Nantucket Sound Seafood, F/V Maude Platt, Inc., and Stonehorse Fisheries, Inc. are as follows:

	2018	2019	2020 (*EFP begins)	2021
Number of Captains	4	3	3	2
Number of Crew Members	12	12	10	8
Total Number of Bushels Caught in HMA area	40,000	20,132	22,784	17,000
Total Number of Bushels Caught both in and outside HMA by the Seafox and the Miss Kara	65,749	58,902	41,139	30,108
Average Trips Per Week	3	2 ½	2	2-1 ½
Number of Processing Plant Employees Working Full-Time (5 days per week, 8 hours per day with some opportunities for overtime)	42	35	30	28
Number of Processing Plant Employees Working Part-Time (3 or less days per week, or less than 32 hours per week)	0	1	17	15

The clam fishery has fallen greatly since April 2019. As the numbers above show, the inability of the industry to harvest in Rose and Crown and Davis Bank East has resulted in catch for small, shallow draft vessels to significantly decrease. Due to the drastic decrease in catches, the Massachusetts and Rhode Island small, shallow draft vessel clam industry is rapidly failing. The negative economic impact to the local economy affects the vessels and processing plants and the employees along with the ancillary businesses such as ice, trucking, and supplies. Furthermore, the indirect impacts to consumers and local businesses are substantial. Clam prices are rising to the point that they are unaffordable to the consumer and have resulted in laid off workers, who are now unable to contribute to the local economy. The abundance of clams within the HMA's exempted areas (Rose and Crown and Davis Bank East) are a major component of species required to sustain this small, shallow draft vessel fishery.

The data collection and subsequent scientific information gathered as a result of the EFP program will allow the Council to further meet its regulatory mandated 10-year review of the HMA,

including its boundaries, scope, characteristics, and timing of habitat and spawning protection. Without new data and an expanded EFP to collect and obtain relevant, best available science (which may potentially modify the current Framework as it relates to clamming), the industry will cease to exist and the data and scientific information that is currently being collected will no longer be possible. Taking into account that the small, shallow draft clam industry has seen a 50% decrease in catch over the last year and a half, engaging in the normal rulemaking process, which can take over a year, is likely to result in the demise of the small, shallow draft vessel Massachusetts and Rhode Island clam industry. I am committed to continuing to work with NOAA, NMFS, and the Council to collect scientific data throughout the HMA and through an EFP. Allowing the vessels to harvest clams, while also collecting data meets the management goals of the HMA and will keep the small, shallow draft vessel industry viable.

The 2018 Framework Adjustment provided for seasonal closures in certain areas. I am supportive of keeping those seasonal closures in place as we learn more about the HMA, habitat, and spawning, if any, that occurs within the HMA. I am also supportive of allowing for a rotational fishing, meaning that the clam fishery is permitted to harvest clams in particular areas each given year, which will mitigate environmental impacts and allow for conservation needs to be met. I am also supportive of keeping other regulatory requirements contained within 50 C.F.R. § 648.370 (h)(2)(i) in place, such as a vessel holding the proper permitting and Regional Administrator authorization to enter the HMA, VMS capability, and gear restrictions.

Therefore, I request that the Council vote to allow for an expanded EFP and vote that the Secretary of Commerce enact an Emergency Action and allow the clamming industry to harvest clams within the HMA. My request will meet conservation needs, allow for the continued collection of scientific data, provide an ongoing supply of clams to the markets, and keep the small, shallow draft vessel industry viable.

Captain Allen Rencurrel
Nantucket Sound Seafood, LLC, F/V Maude Platt, Inc., Nantucket Sound Seafood, Inc., and Stonehorse Fisheries, Inc.

From: MONTE ROME [<mailto:montesan04@yahoo.com>]

Sent: Wednesday, January 26, 2022 7:01 PM

To: Tom Nies <tnies@nefmc.org>; Eric Reid <ericreidri@gmail.com>

Subject: NOAA documented bushels of surf clams landed from the Nantucket Shoals Area per GARFO Clam VTR Data Base

Hi again Tom and Eric,

Please note the following information that just arrived. You will see the decline in harvest from the Shoals. Add this to my comments or just let all know the real numbers. Thanks and,

Best regards, Monte

Year	Bushels of Clams landed from Nantucket Shoals portion of the GSC HMA
2017	337,444
2018	337,638
2019	239,869
2020	228,721
2021	188,088

Source: GARFO Clam VTR database,

From: captmrlou@verizon.net <captmrlou@verizon.net>

Sent: Wednesday, January 26, 2022 8:24 PM

To: comments <comments@nefmc.org>

Subject: GSC HABITAT AREA

Dear Council Members:

My name is Louis Lagace. I am an independent surf clam fisherman and vessel owner in the surf clam fishery. My company name is LNA Incorporated dba F/V Mariette. From age 27 I have been exclusively involved in fishing for surf clams, mostly in the now closed GSC habitat area. For well over FORTY years my entire income has come from the harvest and sale of surf clams. My Captain of over 10 years is my son. He has poured his life into "Mariette" and is poised to assume control of the business if there is one left to control due to the impact of the GSC closure. After the closure, we shifted our harvesting efforts to areas outside of the habitat area. These areas have been heavily fished for DECADES and the CPUE is abysmal. This is because there is no recruitment going on. Small clams are nonexistent. Ocean temperature warming is often cited as the reason for this. In contrast to this, recruitment in the Rose and Crown and Davis Bank area within the Habitat Area is robust, as was pointed out in the study performed by Drs. Powell and Mann. Currently, it takes my vessel 3 to 4 times as long to harvest approximately 1/3 to 1/2 as many clams as it did before the closure. This is a terribly inefficient way to operate a vessel as it does not generate enough revenue to perform even BASIC MAINTENANCE not to mention financing needed improvements! It is also detrimental from an environmental standpoint as regards carbon emissions and swept area of bottom. The decline in CPUE is also accelerating. Add to that the increase in fuel cost which is also accelerating and the only foreseeable outcome is insolvency. It is a long painful slide into the abyss, for my family and the families of my crew members. Sounds like hyperbole but it is reality. This is my personal reality but it also reflects the realities of the entire small to mid-sized surf clam harvesting fleet. The effects on the processors of the hand shucked clam strip market is off the charts. These companies employ many minorities and their workforces are diverse and inclusive. In my time in the fishing industry I have always had respect for the council system. I feel you are tasked with solving some very thorny problems while trying to keep true to your values and doing right for the multitude of user groups vying for what they want. Because of the dearth of DATA for much of the habitat area. I would like to make a request for a Secretarial Emergency Action for an Exempted Fishing Permit which would allow for fishing and research study of the Rose and Crown AND Davis Bank areas. This would accomplish 2 things. 1.) It would add greatly to the data base of these areas for present and future reference which would be a valuable tool for coming decisions; and 2.) It would provide continuity to the information already gathered in the Rose and Crown area. This would also keep our industry from becoming extinct. This research would willingly be financed by our boats if we are allowed to do it. It means that much! We have no other options. Respectfully, Louis Lagace. P.S. Please excuse the format of this comment as I am composing it on my iPhone. It lacks bullet points and is one giant paragraph. I'm sure it is difficult to get through.

[Sent from the all new AOL app for iOS](#)

Galilean Seafood LLC
15 Broad Common Rd
Bristol RI 02809

Atlantic Harvesters LLC
55 Middle Street
Fairhaven MA 02719

January 26, 2022

NEFMC Executive Director Tom Nies
NEFMC Chairman Eric Reid

Re: Great South Channel HMA

Dear Council Members,

My name is Sam Martin. I am Chief Operating Officer for Galilean Seafood and Atlantic Harvesters. We are a surf clam harvest and processing company that has been built around access to Nantucket Shoals within the Great South Channel HMA.

Immediate Emergency Action is needed. The areas identified as Rose & Crown and Davis Bank need to be opened for at least 24 months to the clam industry.

Problem Statement:

Since the closure of the HMA we have seen dramatic reductions in our collective catch per unit of effort, (CPUE) thereby jeopardizing the economic viability of our employees, fishing vessels trucking company and our shoreside plant located in Bristol, RI. We are now losing money operating. We are doing this to continue to provide employment and commerce while we ascertain if there is any way that we can remain viable and stay in this business.

Our business is to harvest and process Surf clams for the fresh market trade. This is different from the machine shuck trade of other larger companies. Our process is employing people to physically shuck and process the clams out of their shells so we can have a truly "fresh" product. This process does not rely on machines, we employ a number of individuals for this labor-intensive work.

The Surf Clams on and around Nantucket Shoals are what created this once successful business model. The area has proven to be sustainable EFH for Surf Clams. Surf Clam EFH is sandy bottom, not mud, rocks, or cobble. The shoals are naturally dynamic in bottom movement thus highly suited for Surf Clam EFH.

When OHA2 was fully executed it closed the area and we lost use of the Nantucket Shoals areas that we have relied on to sustain our business. Primarily those areas are identified as the Rose and Crown and Davis Bank. The industry self-regulated its sustainability through catch effort due to the ability to move around the shoals. This quasi-rotational management gave areas time to rejuvenate clam beds that would recruit to the dredge and be the size needed for the hand shucked surf clam market.

Through a trailing Clam Dredge Framework published June 18, 2019, three areas were identified for the clam industry to work in. McBlair and Fishing Rip areas can be fished year-round and Old South can be fished from May 1st to Oct 31st each year. It is closed in the winter "to avoid disturbing spawning

aggregations of cod that *may* occur in the area". These areas were chosen as they "*appear to be* less vulnerable to habitat impacts" than other areas. The areas identified in the Framework are not viable to sustain the clam industry on the shoals. Fishing Rip has a viable resource, but it cannot be worked due to large boulders or structure in the area. The fact that this area was chosen as an area of less vulnerability establishes that the areas were not chosen on scientific evidence. An EFP was presented to prove that Fishing Rip should not have been chosen over Rose and Crown, but it was denied.

The clam industry was granted a one-year exemption to conduct science to prove those facts. Studies were conducted and funded by industry through the NSF funded Science Center for Marine Fisheries. These studies show that clam vessels do not adversely impact habitat in this area. Analysis shows they could be increasing habitat productivity in the area just as natural substrate movement occurs during current tide cycles and storms. This scientific evidence was not considered and was not utilized to create a sustainable path forward for this relatively small clam community.

An EFP research program was approved by NMFS to assist in proving Rose and Crown could be worked without adversely effecting habitat. These initial findings support the hypothesis that areas within the HMA can be worked without adverse effects to habitat. The final report by CFF is pending. We are simply running out of time to sustain our business. We have been working and exploring other areas outside the shoals that are in reasonable proximity to our plants. They do not have the CPUE or concentrations of clams we need for our hand shuck markets. We have spent over two million dollars to purchase larger vessels to explore other areas outside the HMA, but the vessels have been unsuccessful in locating viable CPUE.

Unfortunately, even with the continued financial investment in our operations, this has failed to prevent significant direct economic loss to our vessels, shoreside plant and employees. The decline is becoming untenable and failing to prevent significant community impacts. Since the closure of the HMA we have seen a 40% reduction in bushels of surf clams through our processing plant.

The commercial activity downstream has been adversely affected. There is a Science Center for Marine Fisheries economic study showing economic escaladers of up to 14+ times multiplier from the harvest value of surf clams into the marketplace. This includes but not limited to, trucking, long shoreman workers, distributors, restaurants, employees. This equates to a loss in commerce or GDP of \$ 20,000,000+ in 2021 alone. If we are out of business in 2023 it will mean a loss of 125 jobs and \$ 35,000,000 loss in commerce in our company alone. Clam vessels are unique and will be without purpose causing further losses to our companies. Many will be on the unemployment line for no good reason.

We need to be able to co-exist in this area, to prevent significant negative community impacts otherwise an entire community will be destroyed. Not reduced. Destroyed. It will be because the weakest player, a small sub-set in the clam industry, lost out to the stronger players to keep their land viable, literally on the other side of the HMA line to the east. Not because it was clearly identified that clamming adversely effects habitat. It was because leadership felt that these 10-12 boat could just go elsewhere and survive. We have tried and this is not the case.

We will not survive unless we are thrown a lifeline by leadership.

Potential Solution:

Due to the resiliency of the area target rotational management of discreet areas within the HMA for the clam industry.

Target data collection through EFP's that identify impacts (positive, neutral, negative) from harvesting in those discreet areas. Utilize the data to produce definitions of habitat that can assist in identification in future areas of concern.

For the GSCHMA specifically:

- Create a data collection portal through a scientific academia agency that facilitates information for NOAA and Council considerations
- McBlair and Fishing Rip to be closed indefinitely
 - These areas are approximately 35 square miles of harvest area.
- Close Old South area for 18 months, Nov 1st, 2022 – April 30th, 2024
 - This area is approximately 19 square miles of harvest area
- These 3 areas constitute 54 sq miles of potential conservation equivalency
- Rose & Crown (42 sq miles) (area previously outline in denied EFP)
 - Open Rose & Crown under an EFP for Surf Clam landings, (for any vessel that applies and complies) for 24 months starting April 1st, 2022
 - Utilize tow by tow data to identify and capture data collection targets (areas of concern)
 - Goals to establish areas that have neutral or positive effects on habitat
 - Goals to avoid areas that have negative effects on habitat
- Davis Bank (area TBD, limited)
 - Establish an EFP for data collection as per other areas for 24 months
 - Limit the harvest to 10,000 bushels per vessel for 2022 and the same for 2023
 - Approximately 12 trips per vessel to establish data
 - Goals to mirror Rose and Crown EFP
- Other areas
 - Under EFP's approved by NMFS select areas for data collection at a limited basis under the threshold

The goals are to:

- Establish 50 square miles of discreet areas within the HMA that will have neutral and positive affects to habitat for rotational management
- Establish habitat definition for future areas of concern

This should be considered HIGH LEVEL PRIORITY.

There is a community that is facing significant negative impacts and is going out of business. A conservative approach was taken in the absence of data to the detriment of this community. This is not at all based upon a resource problem. When there is a problem with a fishery, we create a rebuilding plan for the fishery to save its viability for all user groups. We need to craft a rebuilding plan for the Nantucket Shoals Clamming Community. It is your duty to do so, and we need to do it now.

Thank You,

Sam Martin
Galilean Seafood LLC
Atlantic Harvesters LLC



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

January 26, 2022

William P. Seib, Chief
Operations Division
Baltimore District
U.S. Army Corps of Engineers
2 Hopkins Plaza
Baltimore, MD 21203-1715

Re: Draft Supplemental Environmental Assessment for Mid-Chesapeake Bay Islands Ecosystem Restoration Project at Barren Island

Dear Mr. Sieb:

We have reviewed the draft supplemental Environmental Assessment (sEA), including the enclosed essential fish habitat (EFH) assessment and associated materials, provided on December 20, 2021, for the Preconstruction Engineering and Design (PED) phase of the Barren Island component of the Mid-Chesapeake Bay Island Ecosystem Restoration Project (Mid-Bay Island Project) in, Dorchester County, Maryland. In 2009 the Mid-Bay Feasibility Report was released. Subsequently, the Mid-Bay Island Project was authorized under Section 7002 of the Water Resources Reform and Development Act of 2014. The record of decision was signed in 2019, thus initiating the PED phase of the study. The Baltimore District (the District) prepared this sEA in accordance with the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.) to assess the potential environmental impacts from the proposed action. The District is developing this project in partnership with the Maryland Department of Transportation Maryland Port Administration (MDOT MPA).

The draft sEA contains updated information from the Feasibility Report relevant to Barren Island. While we are concerned about the cumulative impacts of the larger scale Mid-Bay project, which are briefly considered in your NEPA documents, our comments in this letter are directed in response to the Phase I proposal described in the PED and primarily focused on activities planned around Barren Island. We anticipate extensive future coordination as other phases are developed. Furthermore, our comments reflect our current understanding of the project. Several design elements have recently changed and certain impacts to our resources remain unclear. The NEPA documents provided also contain several inconsistencies and inaccuracies. As a result, our comments and EFH conservation recommendations reflect that lack of clarity and missing or conflicting information. We hope that the responses you provide to our comments and EFH conservation recommendations will help resolve those inconsistencies and more clearly describe the proposed action. We may then be able to revisit our EFH conservation recommendations.



Project Description

The designated Preferred Alternative, Alternative 8, includes the construction of 29.6 acres of stone sill and breakwater structures in anticipation of future deposition of dredged material in the space between these structures and the existing island wetland/upland complex. The following design elements are considered during the current project phase:

- 13,023 linear feet of stone “sill” structure approximately 60 feet wide, with a crest elevation of + 5.8 ft MHW. The total footprint of this structure is approximately 18 acres. The sill is designed to accommodate a 30-year event and the design presents opportunities for increasing sill height to accommodate anticipated future sea level rise.
- A 4,260 lf stone breakwater approximately 80-feet wide, with a crest elevation of +8.3 ft MHW is proposed along the island’s western shoreline. This structure will impact a total area of approximately 8 acres.

The most recent Design Document Report (DDR) provided is limited in scope and only addresses the design of containment sills/dikes. The sill/breakwater design for Alternative 8 represents the 35% design outcome which was refined following the completion of hydrologic and hydraulic (H&H) modeling. The results of these models will be incorporated into the 65% design submission. Additional impacts are proposed in future phases to meet project goals/objectives. These phases will entail the extension of the northeast sill, the creation of two bird nesting islands, and filling of shallow waters to create wetland cells. Specific details include:

- Approximately 429,000 cy of maintenance dredging material will be placed behind the proposed sills and contained using temporary sand berms. Sand berms will result in 1.41 acres of impacts to existing wetlands. Dredged material, as available, will be used to fill shallow water areas across three placement cells: 12.4 acres behind the northwest sill, 42.5 acres behind the southwest sill, and 27.9 acres behind the northeast sill.
- An unspecified extent of existing benthic habitat will be dredged for the purpose of creating a suitable foundation for northeast sill. The temporary channel is proposed to be 60 ft wide and -10 MLW. The source of the sand fill for foundation replacement has not yet been determined and will be identified following ongoing geotechnical surveys. However, we are aware that certain areas under consideration may include areas colonized by submerged aquatic vegetation in the recent past.
- Using sand and rock fill, two additional islands will be created for the expressed purpose of colonial bird nesting. These islands will impact 4.9 acres and 3.41 acres of aquatic habitat, respectively. Target elevations are +8.3 MHW at the breakwater with slopes to existing depths (approx. -7 feet MLW). Fish reef structures will likely be used to attenuate wave energies on the northeast aspect of these islands.
- Outfalls or gaps will be constructed in the proposed sills for the purpose of dredged material dewatering, which will be in compliance with water quality standards set by the State of Maryland.

Consultation History

We provided comments and recommendations dated May 20, 2005, in response to your EFH assessment drafted for the Mid-Chesapeake Island Ecosystem Restoration Integrated Feasibility Report & Environmental Impact Statement (EIS). These comments included recommendations to limit the source of material used for wetland restoration at Barren Island to navigation-related projects, to generally increase the number of tidal inlets in these projects, and to include crenulations along proposed stone structures to present additional habitat complexity. It remains unclear whether these recommendations will be fully implemented.

We provided further comments in our May 12, 2017, letter issued in response to the updated EFH assessment provided April 10, 2017. That letter requested updated biological information to inform our review of the project and included recommendations that areas of mapped SAV be avoided, and low marsh habitat creation be maximized. The most recent EFH assessment contains much of the information requested in that letter and we appreciate the extent to which additional biological data were collected and presented in this update.

While not part of this consultation, we have engaged with the District, MDOT MPA, and other state and federal agencies on multiple restoration, enhancement, and dredge material reuse projects, including the John Sarbanes Poplar Island Ecosystem Restoration Project. Since 1995, NMFS has conducted annual surveys to assess the relative success of the Poplar Island project in provisioning habitat for aquatic estuarine species. Given the thematic similarities between the Mid-Bay Island Project and those activities undertaken at Poplar, the designs of this project should be improved by building upon the knowledge gained through that research and other technical expertise available.

Authorities

The Magnuson Stevens Fishery Conservation and Management Act (MSA) requires federal agencies such as the Corps to consult with us on projects that may adversely affect EFH. 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 consultation process. Please see our website (<https://www.fisheries.noaa.gov/new-england-mid-atlantic/habitat-conservation/essential-fish-habitat-assessment-consultations>) for further information regarding your agency's obligations in this process, including the required response to our EFH conservation recommendations (CRs). In addition, the Fish and Wildlife Coordination Act (FWCA) requires all federal agencies to consult with us when proposed actions might result in modifications to a natural stream or body of water. It also requires that federal agencies consider the effects that these projects would have on fish and wildlife and provide for the improvement of these resources.

Aquatic Resources and Anticipated Impacts from Proposed Actions

The project area presents a wide range of conditions and habitats suitable for a diverse suite of aquatic organisms. Several of these species are federally managed and have designated EFH. Since EFH also includes those waters, their associated qualities (e.g., turbidity, dissolved oxygen), and prevalent prey species, the proposed project will adversely impact EFH through a variety of complex and interacting pathways. Several additional species that are not federally managed but are of concern to our agency due to their ecological, economic, and/or historical value also occur in the project area. Impacts to these species are largely dismissed in your EFH assessment for reasons ranging from relative sea-level rise (RSLR) presenting greater quantities of aquatic habitat to certain life stages being “good swimmers.” While these concepts may be true in the most basic sense, they lack a nuanced perspective of aquatic habitats and the complexities of estuarine food web dynamics. As a result, we remain concerned that all practical efforts are not being made to minimize the impacts of these substantial dredging/filling activities and offset unavoidable impacts through the creation of productive aquatic systems. We briefly describe these resources and associated considerations in the subsections below.

Federally Managed Fish Species and Prey Species

As you are aware, the project area contains designated EFH for seven species of fish, including bluefish (*Pomatomus saltatrix*), summer flounder (*Paralichthys dentatus*), black sea bass (*Centropristis striata*), windowpane (*Scophthalmus aqueous*), butterfish (*Peprilus triacanthus*), clearnose skate (*Raja eglanteria*), and scup (*Stenotomus chrysops*). These species use the shallow waters and the intertidal marshes around Barren Island as forage, nursery, and refuge habitat. Based upon the information provided in Appendix C, the placement of dredged material in the shallow waters around Barren Island and Tar Bay Wildlife Management Area (WMA) will have a direct adverse effect on EFH for several species and their prey by converting shallow-water habitats (e.g., SAV, tidal flats) to low and high marsh. The data presented in that survey indicates that federally-managed species such as bluefish and summer flounder use this habitat seasonally and that estuarine-resident prey species (e.g., sheepshead minnow *Cyprinodon variegatus*) are present throughout much of the year. This area also likely serves as seasonal foraging ground for other recreationally and commercially valuable species (e.g., striped bass *Morone saxatilis*) due to the documented presence of preferred prey items such as menhaden (*Brevoortia tyrannus*) and structured habitats (e.g., fallen trees).

The majority of the resulting impacts to EFH, including nursery habitat and prey species, will occur through the permanent conversion of subtidal shallows to stone sills/breakwaters and areas filled with dredged material. Compensatory mitigation has not been proposed to offset this loss of habitat and associated ecological functions. However, some of the lost or diminished aquatic habitat and functions can be restored and possibly enhanced in the future through the creation of intertidal low marsh, tidal flats, creeks/inlets, and potentially fish reef structures as part of the later phases of the project. Information gathered during years of study at Poplar Island and the surrounding marshes should be used to inform the design of these elements to maximize their aquatic habitat value. This includes maximizing the width and depth of tidal inlets, connecting tidal creeks to existing freshwater inputs, and providing a diversity of structured habitat (e.g., vegetation, reefs) to create a continuity of refugia for aquatic life.

Emergent Tidal Wetlands

Intertidal marshes of the Delmarva peninsula provide many ecological functions including fish and wildlife habitat, primary productivity via plant/microalgae/fungal growth, nutrient transformation, sediment retention, and carbon sequestration. Colonization by different species of emergent tidal marsh vegetation is dictated primarily by the frequency and duration of tidal inundation (hydroperiod). The assemblages of other primary producers (e.g., microalgae) and the associated benthic, epibenthic, and macrofaunal communities also exist along this continuum (Visser et al., 2019, Ziegler et al., 2020). The extent to which the productivity of these vegetative communities contributes to overall estuarine productivity is mediated in large part by the frequency of tidal flooding and their connectivity to tidal channels. The primary production of low marsh (i.e., regularly flooded) wetlands forms the base of the food web that supports invertebrates and forage fish that are then prey for larger fish such as bluefish. The low marshes, creeks, and open waters within the project area also provide habitat for a number of federally managed species and their prey. Tidal creeks and intertidal flats are an especially important habitat for juvenile summer flounder.

The surface elevation of intertidal emergent wetlands exists in dynamic equilibrium as influenced by a variety of factors including tidal inundation, plant growth, and sediment availability (Cahoon et al., 2009). For example, the mobilization of sediments from an eroding marsh edge allows for liberated sediments to be deposited on adjacent marshes, thus maintaining elevation relative to sea level (Ganju, 2019). Similarly, tidal creeks in stable marshes also exist in equilibrium whereby net sediment transport is at or near zero (Lazoni and Seminara, 2002; Ganju et al., 2017). They also serve as conduits for the delivery of sediment-laden waters to the marsh platform, which is one mechanism that can facilitate marsh platform accretion and long-term marsh persistence relative to sea level (Pratolongo et al., 2019). The dynamic nature of these systems points to the importance of establishing an understanding of the sediment budget for a particular site and incorporating this information into the design of created wetlands. We encourage you to consider these complexities during the formulation of wetland cell designs in future project phases to maximize the resilience of constructed features.

We recognize that island habitats and their corresponding fringing low marsh in the Chesapeake Bay are negatively influenced by erosion and RSLR (Beckett et al., 2016; Kirwan et al., 2016) which historically has led to the contraction/loss of islands and extensive upland conversion to tidal marsh (Schieder et al., 2018). However, low marsh habitat in the broader Chesapeake Bay is eclipsed by high marsh at a ratio of 3 to 1 (Correll et al., 2018), although the proportion of low marsh fringing island habitats is likely much higher. Fringing marshes of the Chesapeake Bay are experiencing ongoing, significant edge erosion associated with storm activity and RSLR, which threatens the ecological integrity of the Chesapeake Bay estuary. As a result, some level of disturbance may be appropriate to ensure the long-term integrity of these marsh/island complexes, provided the adverse effects to EFH and federally managed species are minimized and unavoidable impacts are offset through the creation of intertidal marsh that is connected to other near-shore fisheries habitats (e.g., reefs, SAV) via tidal creeks.

Submerged Aquatic Vegetation

As described in Appendix C, areas in the vicinity of the proposed placement site are also annually colonized by submerged aquatic vegetation (SAV), primarily widgeon grass (*Ruppia maritima*) and horned pondweed (*Zannichellia palustris*). SAV is designated a habitat area of particular concern (HAPC) for summer flounder because it has been demonstrated to be preferred feeding and resting habitat (Orth and Heck, 1980; Lascara, 1981; Rogers and Van Den Avyle, 1983; Heck and Thoman, 1984) for this recreationally and commercially valuable species. HAPCs are a subset of EFH that are either rare, particularly susceptible to human-induced degradation, especially important ecologically, or located in an environmentally stressed area. Because of this, individual, cumulative and synergistic effects are a particular concern in these habitats. The Mid-Atlantic Fishery Management Council has defined the summer flounder HAPC as 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. Because SAV, especially widgeon grass, can exhibit large spatial fluctuations from year to year the widely accepted practice for defining SAV habitat is to consider areas identified by the Virginia Institute of Marine Science (VIMS) as supporting SAV based on surveys conducted in the five most recent years. Any area mapped in those five years is considered to be habitat that supports SAV, even if SAV is not found there on a given date during the growing season.

The proposed filling activities around Barren Island will result in the permanent loss of approximately 34 acres of bottom that has supported SAV in recent years, with an unspecified subset of that area being directly impacted through the construction of stone structures. The construction activities associated with this project will likely also adversely affect SAV through a variety of direct and indirect impacts. For example, vessel operation in the project area may result in the disturbance of subaqueous bottom which may cause the direct destruction of SAV during the growing season and inhibit recolonization during future growing seasons (Sagerman et al., 2020). Also, the introduction of stone structures will likely cause localized scour, notably in the vicinity of the northeast sill, that could permanently render additional areas unsuitable for future SAV colonization. This combination of disturbances will result in permanent direct and indirect impacts to annually recurring SAV beds in the area immediately adjacent to the project placement site. While we concur that the no action alternative would likely result in greater overall long-term impacts to existing SAV habitat located between Barren and Hoopers islands, this does not obviate the need to implement avoidance and minimization measures for any of the build alternatives, including your preferred alternative. Finally, we appreciate the extent to which surveys and H&H modeling has been completed with specific attention to SAV habitat and encourage you to consider the secondary effects of sill-induced scour on habitat suitability for SAV while plans are developed for the northeast sill.

Oyster Reef

Oyster reef habitats have been identified as productive fish habitat in the Chesapeake Bay and throughout their range. In their analysis, McGinty et al. (2019) determined that almost all productive fishing grounds in the Maryland portion of Chesapeake Bay occur in the immediate vicinity of natural oyster bars and offer a review of the literature linking oyster bars with fish habitat in this region. The waters surrounding Barren Island present oyster reef habitat which is valuable for a variety of commercially (e.g., black sea bass, striped bass) and recreationally important species of fish and their prey. These areas also host a variety of oyster aquaculture

leases that support local watermen. The proposed dredge and fill activities associated with the northeast sill will result in direct impacts to a documented oyster bar which should be offset through habitat enhancements (e.g., reef creation, oyster reef enhancement) elsewhere.

Tidal Flats

Intertidal and subtidal unvegetated flats are vitally important habitats for various fish and invertebrates. Because of their landscape position and setting within the tidal frame, intertidal and subtidal unvegetated flats are by nature constrained, typically making up only a small portion of the habitat within a system. These areas play an important role in regard to primary production, secondary production and water quality. An extremely productive microalgal community typically occupies the surface sediments (MacIntyre et al., 1996) and can represent a significant portion of overall primary productivity in a system (Pinckney and Zingmark 1993; Buzzelli et al., 2002). Benthic microalgal, bacterial, and imported primary production in the form of phytoplankton and detritus support diverse and highly productive populations of benthic animals in and on intertidal and subtidal un-vegetated flats. These include ciliates, rotifers, nematodes, copepods, annelids, amphipods, bivalves and gastropods, which are preyed upon by mobile predators (i.e., wading birds, fish) at different stages of the tide. This dynamic system provides various ecological functions, including: nursery grounds for early stages of development of many species; refuges and feeding grounds for a variety of forage species and juvenile fishes; significant trophic support to fish and shellfish (Sullivan and Currin 2000; Page and Lastra 2003; Currin et al., 2003); and, stabilization of sediments and modulation of nutrient fluxes (Sundback et al., 1991; Miller et al., 1996; Cerco and Seitzinger, 1997; Yallop et al., 1994, 2000).

Although they were not surveyed/delineated for this sEA, aerial imagery indicates that tidal flats will likely be filled to create stone structures and associated marsh cells. To offset these losses, we recommend that existing flats be incorporated into wetland cell design to the extent possible and that additional tidal flat habitat be created as an integral habitat feature when wetland cells are designed in future project phases.

Diadromous Fish

Diadromous fish use the shallow waters of the mainstem Chesapeake Bay as migrating, resting, nursery, and feeding habitats at various points in their complex and diverse life histories. These species include anadromous fishes such as striped bass (*Morone saxatilis*), white perch (*Morone americana*), hickory shad (*Alosa mediocris*), American shad (*A. sapidissima*), alewife (*A. pseudoharengus*), blueback herring (*A. aestivalis*). The catadromous American eel (*Anguilla rostrata*) also uses the project area to complete similar life history stages. All of these species are either currently commercially and recreationally valuable (e.g., striped bass) or formerly supported expansive coastal fisheries before populations (e.g., *Alosa* spp., American eel) reached historic lows due to human activities. Due to their broad economic value, cultural significance, and need for conservation, we advocate for avoidance and minimization efforts to protect these species under the authority of the FWCA. Project activities, such as dredging may disturb these species during certain stages (e.g., spawning) of their complex life histories and certain avoidance and minimization measures, such as seasonal work windows or measures to reduce the release of suspended sediments into the water column, may be necessary for future project phases.

Concerns and Recommendations

Overall, the Mid-Bay Island Project will convert approximately 2,200 acres of shallow-water habitat into rock sills, intertidal wetlands with tidal creeks, infrequently flooded high marsh, and uplands. Of these two islands, only approximately 1,750 acres was historically documented (ca. 1875) to be occupied by uplands and intertidal wetlands. While we acknowledge the value of remote island habitat for a variety of species, we strongly recommend that impacts to existing priority habitats (e.g., SAV, oysters) be minimized and that productive intertidal and subtidal habitats be created to offset these losses. We support limiting placement of dredged material to elevations at or below MHW, as is indicated throughout the sEA, because this elevation corresponds with the transition area between low and high marsh. Conversely, the document also suggests that considerations to change the high:low marsh ratio from what was previously established during the feasibility stage (i.e., 80% low and 20% high marsh) are underway in anticipation of RSLR. These changes have not been adequately justified and the justifications presented in the sEA appear to be based on simplistic representations of marsh ecosystems and their responses to RSLR.

Reducing created low marsh habitat will diminish the ability of these projects to offset proposed losses, which include extensive shallow-water fill with stone and dredged material, altered hydrodynamic conditions, shallow-water habitat alterations, and new access dredging. All biota found in this remote Chesapeake Bay island habitat, including several target avian species, depends heavily on aquatic biological productivity associated with regularly inundated salt marshes, tidal flats, creeks/inlets, SAV, and other shallow water habitats. The losses of tidal marsh elsewhere in the region due to RSLR, erosion, and upland development are not sufficient justification for these proposed fills. Rising sea levels pose substantial challenges to tidal wetlands. However, the best mitigation for those challenges is not through the expansive creation of high marsh, but rather through careful planning and adaptive management to achieve project goals. These measures include using updated tidal datums (anticipated 2025), establishing low marsh above the mean tide level (see: Raposa et al., 2016), and planning for adaptive management measures that introduce sediment into created marshes (e.g., thin layer placement). Creating high marsh is most reasonable where they tie into existing elevations of adjacent marsh communities. We will continue to discuss how best to achieve an ecologically-relevant balance of habitats from these projects that, with adaptive management, will continue to provide productive estuarine habitat for the foreseeable future.

As indicated in the sEA, we are also concerned that the construction of the northeast sill will present direct (i.e., fill) and indirect impacts (e.g., increased water velocities, scour) to existing SAV and shallow-water habitats, especially if it is constructed to its full extent in future phases. The purpose of the northeast sill is to protect the northern shore of Tar Bay WMA from wave action. According to information provided in this plan and aerial imagery, much of the existing land in this area was formed by repeated placement of dredged material within the last few decades. Furthermore, a substantial section of this sill will require dredging and filling operations to provide substrates with ample bearing capacity. Because these land masses are not historical and their preservation requires substantial impacts to the existing bottom, we recommend that the linear extent of the northeast sill be minimized as much as possible. Modeling efforts to

determine the hydrodynamic effects of the northeast sill are still ongoing and it is our understanding that updated results will be presented in conjunction with the 65% design. These modeling results will be necessary to anticipate potential indirect effects on SAV and should be presented to the resource agencies prior to the selection of a final design. If significant impacts to SAV are anticipated, then hydrodynamic approaches to mitigate increased velocities (e.g., increasing bottom roughness via reef creation) should be evaluated and incorporated into project plans. We also recommend that bathymetric surveys be conducted following the construction of the reduced portion of the northeast sill under Phase 1 to determine the effects (i.e., scour) this structure may have on shallow water habitats should it be extended.

The designated sill/breakwater crest elevations have changed in this most recent design phase to provide additional protections from wave action associated with high water events and RSLR more generally. We understand that these changes are based on stakeholder feedback and several instances of rounding up to the nearest foot. However, several of the figures and appendices still present heights that are several feet below what is currently proposed. While we understand that you wish to build this structure to withstand anticipated future conditions, these large stone structures present greater impacts to existing aquatic habitats. Furthermore, we are aware of no justification for the proposed changes to sill slopes from 1.5:1 to 2:1 other than it was the decision of the USACE Coastal Engineer. This change likely has a significant bearing on the extent of fill proposed to create these structures. We recommend that additional justification be provided for the stone sill crest height and slopes such that impacts of these structures are minimized to the extent possible while achieving project goals. Currently, it is not clear whether that has been achieved.

Based on the information presented regarding maintenance dredging in the channels around Barren Island, it appears that several years will elapse between the completion of the first phase (i.e., stone sills/breakwaters) and the last (i.e., final wetland cells). The Planning and Aid Report (PAR) indicates that this may take seven (7) years, although other sections of this NEPA document indicate that the frequency of local dredging will be dependent upon congressional allocations. This offers both a challenge and an opportunity. The challenge is that certain existing shallow water areas and their attendant marsh/SAV features will experience limited tidal exchange for extended periods of time, which will accentuate environmental stressors (e.g., heatwaves) and substantially limit aquatic productivity in these areas. We recommend that you evaluate the potential construction of a limited number of tidal inlets to allow for tidal flushing and greater nektonic access during the intervening years and greater aquatic connectivity throughout the created wetlands upon project completion. When placement is scheduled, these inlets could be temporarily blocked, preferably with sand berms, to contain the placed material. Once marsh vegetation was established in these areas, they could be reconnected via excavation, as necessary. The opportunity presented with this protracted timeline is that monitoring of early placement sites can inform future placement efforts. Because significant time will likely pass between each cell, there will be adequate time (e.g., greater than five years) to evaluate the success of each cell and then use that information in the design of future phases.

Future design phases and coordination

We are concerned that the borrow area dredging currently under consideration represents a two-fold impact for our resources (i.e., dredging and subsequent filling) for the purpose of creating stone sill foundations and colonial nesting bird habitat. Several fundamental aspects of this borrow activity remain unclear, including the location, quantity, and footprint of the proposed dredging. We continue to recommend that sand borrow material be sourced from navigational channels to the extent practicable to minimize impacts to undisturbed bottom. Specifically, borrow material should not be sourced from areas documented to support SAV, as these areas will likely become unsuitable for future colonization due to increasing water depths.

We appreciate the goals of these features and offer the following guidance to minimize impacts to aquatic habitats. First, while we acknowledge the challenges facing colonial nesting bird species and support the creation of limited, resilient colonial bird nesting habitat, impacts associated with these features (i.e., 8 acres of fill) should be offset through the creation of productive habitats for fish, including low marsh, tidal creeks/inlets, SAV, and oyster reef. Furthermore, the potential direct and indirect impacts of the northeast sill remain unknown and the details of its design are still under consideration. We support the reduction of the northeast sill to the minimum necessary to stabilize priority areas of Tar Bay WMA. This will help to minimize impacts to existing shallow water habitats, including the Great Bay Natural Oyster Bar (NOB). Future H&H modeling efforts should also examine the efficacy of oyster reef structures in lieu of stone sills to dissipate wave energies, reduce current velocities, and enhance the existing Great Bay NOB.

Future design considerations should allow for the proposed stone sills to be reconfigured to allow for greater tidal connectivity through the establishment of tidal inlets to constructed marshes. In the sEA, it is indicated that connectivity could be established through outfall structures. As has been demonstrated on Poplar Island (NOAA, 2011; Meyer and Teer, *in press*), the hardened and constricted nature of traditional outfall structures is not conducive to fish movement and can present significant challenges to aquatic connectivity. Thus, these inlets should be augmented to allow for greater nekton connectivity. They could also afford the opportunity to establish additional pocket beaches, intertidal mudflats, and other habitat features that are not colonized by emergent vegetation.

Finally, while we recognize that the scope of this document is limited to the stone structures surrounding Barren Island, it is notable that these foundational project components have bearing on future design considerations for the additional elements. While the stabilization of Barren Island has a spatially-fixed focus centered around erosion control of existing marshes and uplands, the scope and purpose of the James Island phase is distinctly different. Therefore, the design and alignment of the stone structures anticipated to create James Island should be examined within the context of the entire project such that ecological benefits and resilience may be fully realized throughout the project area.

Magnuson Stevens Fisheries Conservation and Management Act EFH Conservation Recommendations

As discussed above, the project as currently proposed will adversely affect EFH for federally managed species such as bluefish and summer flounder due to the loss of habitat for these species and their prey. Additional information anticipated in future NEPA documents is necessary to fully evaluate the adverse effects and options for avoidance and minimization. Further consultation with us under the MSA and FWCA is also necessary as this information is developed and future phases of the overall project are planned.

Based upon the information available for the current phase of the project (i.e., Phase I of the Barren Island component of the Mid-Bay Islands Project), we recommend pursuant to Section 305(b)(4)(A) of the MSA that you adopt the following EFH conservation recommendations to minimize adverse impacts on EFH and aquatic resources of national importance:

1. Develop a work plan that avoids in-water construction during certain times of year, including:
 - a. the SAV growing season (April 15 through October 15) for in-water activities within 500 feet of mapped SAV;
 - b. the closure period for dredging activities within 500 feet of a designated natural oyster bar (June 1 through September 30, in any year).
2. Direct and indirect impacts to areas of mapped SAV should be monitored and offset through the creation of suitable fisheries habitat as part of the overall Barren Island Project. Work with us and other resource agencies (e.g., MDNR) in future design phases to offset anticipated losses.
3. Avoid vessel impacts to existing bottom by incorporating best management practices into project plans and operational requirements. These include:
 - a. Ensure contractors are aware of necessary minimization measures (e.g., shallow-draft vessels, high-tide operations) to avoid bottom impacts;
 - b. Avoid operating vessels in areas colonized by SAV to the maximum extent possible;
 - c. Coordinate with us and other resource agencies should dredging be required to provide access to construction areas.
4. Evaluate and incorporate gaps in the proposed sills to the maximum extent practicable to allow for greater tidal exchange prior to dredge material placement and following vegetative establishment.

Anticipated Future Project Phases

5. Low marsh habitat in Chesapeake Bay marshes is vitally important habitat for numerous species and is generally eclipsed by high marsh at a ratio of 3 to 1 (Correll et al., 2018). As a result, the Corps should adequately prioritize the creation and enhancement of low marsh habitat, typically found below Mean High Water (MHW).
6. Work with us and other resource agencies to better incorporate the installation of fish reef structures and oyster reef creation/enhancement to offset the loss of structured aquatic

habitat. These features could also be used to protect constructed shorelines (e.g., bird islands, sill gaps) from erosion and mitigate the need for future island renourishment.

7. Provide us with information necessary to determine project impacts and anticipated outcomes, including the following:
 - a. Submit project plans for our review that depict all aspects of existing and proposed site conditions. This should include dredged material analysis, placement site existing contours (e.g., bathymetry, MHW, MLW), and as-built profile details depicting anticipated final conditions/contours.
 - b. Develop ecological performance standards to determine if the project is achieving its objectives of restoring and enhancing aquatic habitat that resembles an ecological reference. An ecological reference should be established and be based on the characteristics of an intact aquatic habitat of the same type within the same watershed.
 - c. Develop a monitoring and maintenance plan that includes performance measures, success criteria, adaptive management plans, and invasive species monitoring and control. This plan should be provided to us for review during the wetland design phase.

Endangered Species Act (ESA)

Endangered species under the jurisdiction of NOAA Fisheries may be present in the project area. On February 5, 2018, you determined that the proposed action may affect, but is not likely to adversely affect listed species under our jurisdiction, and submitted your determination of effects along with justification and a request for concurrence. We concurred with your determination that the action is not likely to adversely affect listed species or critical habitat per the justification you provided and consultation was completed on February 5, 2018.

On August 14, 2020, we received a request for re-initiation of consultation regarding the District's Mid-Chesapeake Bay Island Ecosystem Restoration Project. We reviewed the information attached to your email requesting a determination from us regarding re-initiation of consultation and, based on the effect analysis from the previous consultation on the project, the information that you have provided indicating no changes to the project description, and the fact that no new listed species or designated critical habitat overlap with the action area, we provided a response on August 18, 2020, stating that it was not necessary to re-initiate the consultation we completed on February 5, 2018.

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. Should there be additional changes to the project plans or new information becomes available that changes the basis for this determination, further coordination should be pursued. Please

contact Brian Hopper of our Protected Resources Division (brian.d.hopper@noaa.gov), should you have any questions regarding these comments.

Conclusion

We look forward to working with you and your staff as the Mid-Bay Island Project progresses. We encourage early coordination with us as future phases of the project are developed. If you have any questions regarding EFH in the project area, please contact Jonathan Watson in our Annapolis, MD field office (jonathan.watson@noaa.gov).

Sincerely,



Louis A. Chiarella
Assistant Regional Administrator
for Habitat and Ecosystem Services

cc: A. Sowers, C. Leasure, (USACE)
K. Fiddler (MDOT MPA)
B. Hopper (NMFS - PRD)
S. Corson (NCBO)
A. O'Donnell, C. Callahan (USFWS)
M. Fitzgerald (USEPA)
T. Roberson, M. Phipps-Dickerson (MDE)
G. Gibson, R. Limpert (MDNR)
T. Nies (NEFMC)
C. Moore (MAFMC)
L. Havel (ASMFC)

Literature Cited

- Beckett, L.H., A.H. Baldwin, M.S. Kearney. 2016. Tidal marshes across a Chesapeake Bay subestuary are not keeping up with Sea-Level Rise. PLoS ONE 11(7): e0159753. doi:10.1371/journal.pone.0159753
- Buzzelli, C. P., R. A. Luettich, S. P. Powers, C. H. Peterson, J. E. McNinch, J. L. Pinckney, H. W. Paerl. 2002. Estimating the spatial extent of bottom water hypoxia and habitat degradation in a shallow estuary. Marine Ecology Progress Series 230:103-112.
- Cahoon, D.R., D.J. Reed, A.S. Kolker, M.M. Brinson, J.C. Stevenson, S. Riggs, R. Christian, E. Reyes, C. Voss, D. Kunz. 2009. Coastal wetland sustainability. Pgs. 57–72 in Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region. J.G. Titus, K.E. Anderson, D.R. Cahoon, D.B. Gesch, S.K. Gill, B.T. Gutierrez, E.R. Thieler, S.J. Williams, eds. U.S. Environmental Protection Agency, U.S. Climate Change Science Program, Washington D.C.
- Cerco, C.F., S.P. Seitzinger. 1997. Measured and modeled effects of benthic algae on eutrophication in Indian River-Rehoboth Bay, Delaware. Estuaries 20:231–248.
- Correll, M.D., W. Hantson, T.P. Hodgman, B.B. Cline, C.S. Elphick, W.G. Shriver, E.L. Tymkiw, B.J. Olsen. 2018. Fine-scale mapping of coastal plant communities in the northeastern USA. Wetlands 39: 17–28. <https://doi.org/10.1007/s13157-018-1028-3>.
- Currin, C.A., S. A. Wainright., K.W. Able, M. P. Weinstein, C.M. Fuller. 2003. Determination of food web support and trophic position of the mummichog, *Fundulus heteroclitus*, in New Jersey smooth cordgrass (*Spartina alterniflora*), common reed (*Phragmites australis*), and restored salt marshes. Estuaries 26:495–510
- Ganju, N.K, Z. Defne, M.L. Kirwan, S. Fagherazzi, A. D’Alpaos, L. Carniello. 2017. Spatially integrative metrics reveal hidden vulnerability of microtidal salt marshes. Nature Communications. DOI: 10.1038/ncomms14156
- Ganju, N.K. 2019. Marshes are the new beaches: integrating sediment transport into restoration planning. Estuaries and Coasts 42:917–926.
- Heck, K.L., T.A. Thoman. 1984. The nursery role of seagrass meadows in the upper and lower reaches of the Chesapeake Bay. Estuaries 7: 70–92.
- Kirwan, M.L., S. Temmerman, E.E. Skeeahan, G.R. Guntenspergen, S. Fagherazzi. 2016. Overestimation of marsh vulnerability to sea level rise. Nature Climate Change 6: 253-260.
- Lascara, J. 1981. Fish predator-prey interactions in areas of eelgrass (*Zostera marina*). M.S. thesis, College of William and Mary, Williamsburg, VA. 81pp.
- MacIntyre, H. L., R. J. Geider, D. C. Miller. 1996. Microphytobenthos: the ecological role of the "secret garden" of unvegetated, shallow-water marine habitats. I. Distribution, abundance, and primary production. Estuaries 19:186-201.

- McGinty, M., J. Uphoff, M. Tarnowski. 2019. Job 3: Development of a provisional index of hard bottom forage taxa for recreationally important finfish in Maryland's portion of Chesapeake Bay. pgs.201-221 in Uphoff, J., M. McGinty, A. Park, C. Hoover, M. Patton. 2018. Marine and estuarine finfish ecological and habitat investigations. Maryland Department of Natural Resources, 17-120419-191.
- Meyer, D.L. and B.Z. Teer. *in press*. Large-scale wetland habitat restoration in Chesapeake Bay USA: assessments of function and change in nekton and finfish use and community structure.
- National Oceanic and Atmospheric Administration (NOAA). 2011. Annual report on the nekton surveys for the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island. 143 pp.
- Orth, R.J., K.L. Heck, Jr. 1980. Structural components of eelgrass (*Zostera marina*) meadows in the lower Chesapeake Bay - fishes. *Estuaries* 3: 278–288.
- Page, H. M., M. Lastra. 2003. Diet of intertidal bivalves in the Ria de Arosa (NW Spain): evidence from stable C and N isotope analysis. *Marine Biology* 143:519-532.
- Pinckney, J. L., R. G. Zingmark. 1993. Modelling the annual production of intertidal benthic microalgae in estuarine ecosystems. *Journal of Phycology* 29:396-407.
- Pratolongo, P., N. Leonardi, J.R. Kirby, A. Plater. 2019. Temperate coastal wetlands: morphology, sediment processes, and plant communities. pgs 105 - 152 in *Coastal wetlands: An integrated ecosystem approach*, Second Edition. G.E. Perillio, E. Wolanski, D.R. Cahoon, C. Hopkinson, eds. Elsevier. Cambridge, Massachusetts.
- Raposa, K.B., K. Wasson, E. Smith, J.A. Crooks, P. Delgado, S.H. Fernald, M.C. Ferner, A. Helms, L.A. Hice, J.W. Mora, B. Puckett, D. Sanger, S. Shull, L. Spurrier, R. Stevens, S. Lerberg. 2016. Assessing tidal marsh resilience to sea-level rise at broad geographic scales with multi-metric indices. *Biological Conservation* 204: 263-275.
- Rogers, S.G. M.J. Van Den Avyle. 1983. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (South Atlantic) – summer flounder. US. Fish and Wildlife Service. FWS/OBS-82/11.15 U.S. Army Corps of Engineers, TR EL-82-4. 14p.
- Sagerman, J., J.P. Hansen, S.A. Wikstrom. 2020. Effects of boat traffic and mooring infrastructure on aquatic vegetation: A systematic review and meta-analysis. *Ambio* 49: 517-530.
- Schieder, N.W., D.C. Walters, and M.L. Kirwan. 2018. Massive upland to wetland conversion compensated for historical marsh loss in Chesapeake Bay, USA. *Estuaries and Coasts* 41: 940-951.
- Sullivan, M. J. and C.A. Currin. 2000. Community structure and functional dynamics of benthic microalgae in salt marshes. pgs 81-106 in *Concepts and controversies in tidal marsh ecology*, M.P. Weinstein & D.A. Kreeger (eds.), Kluwer Academic Publishing. Dordrecht, Netherlands.

Sundback, L. V., W. Enoksson, W. Graneli, K. Pettersson. 1991. Influence of sublittoral microphytobenthos on the oxygen and nutrient flux between sediment and water: A laboratory continuous-flow study. *Marine Ecology Progress Series* 74:263-279.

Visser, J.M., S. Midway, D.M. Baltz, C.E. Sasser. 2019. Ecosystem structure of tidal saline marshes. pgs 105 - 152 *in* Coastal wetlands: An integrated ecosystem approach, Second Edition. G.E. Perillio, E. Wolanski, D.R. Cahoon, and C. Hopkins, eds. Elsevier. Cambridge, Massachusetts.

Yallop, M. L., B. de Winder, D. M. Paterson, L. J. Stal. 1994. Comparative structure, primary production and biogenic stabilization of cohesive and non-cohesive marine sediments inhabited by microphytobenthos. *Estuarine, Coastal and Shelf Science* 39:565-582.

Yallop, M. L, D.M. Paterson, P. Wellsbury. 2000. Interrelationships between Rates of Microbial Production, Exopolymer Production, Microbial Biomass, and Sediment Stability in Biofilms of Intertidal Sediments. *Microbial Ecology* 39:116-127.

Ziegler, S.L., R. Baker, S.C. Crosby, D.D. Colombano, M.A. Barbeau, J. Cebrian, R.M. Connolly, L.A. Deegan, B. L. Gilby, D. Mallick, C.W. Martin, J.A. Nelson, J.F. Reinhardt, C.A. Simenstad, N.J. Waltham, T.A. Worthington, L.P. Rozas. 2021. Geographic variation in salt marsh structure and function for nekton: a guide to finding commonality across multiple scales. *Estuaries and Coasts*. DOI:10.1007/s12237-020-00894-y

COONAMESSETT FARM
277 Hatchville Road
East Falmouth, Massachusetts, USA 02536
508-563-2560 FAX 508-564-5073
cfarm@capecod.net

January 25, 2022

To: Eric Reid, Chair, NEFMC
From: Ronald Smolowitz, Habitat Advisor
Subject: Nantucket Shoals HMA

In my role as a NEFMC Habitat Advisor I would like to offer my thoughts on the issue of a clam fishery within the HMA. I believe there are four options in front of managers; support an emergency action, start a new management action, utilize the EFP process, or do nothing. The latter will result in wiping out a profitable historic fishery.

These clammers and fishermen have been harvesting this productive area for decades without demonstrated harm. These are local boats harvesting the local food and bringing the crop to local facilities for processing in SE Massachusetts owned by locals. The fishery supports “resilient communities and economies”. The workers in these processing plants are people of color who have limited opportunities in our local economy. Importantly, the fishery advances Diversity, Equity, and Inclusion (DEI). Without local fisheries, we lose food security and become more dependent on foreign sources of food which we have no control.

With regard to the potential alteration of habitat clammers may cause, it is important to consider it in the context of likely habitat alterations over vast areas that will result from wind energy development. I realize the governance framework that applies to clammers and wind energy developers is very different, but it doesn't seem fair that a small traditional industry is much more constrained by concerns about as of yet unseen negative impacts, then billion-dollar foreign conglomerates that will have significant impacts.

The clam industry has proposed that the fishery continue with an industry financed monitoring plan to insure no harm is accruing to the environment. What follows are some of my thoughts on this issue:

Managing the HMA utilizing the EFP process:

1. In December 2018, the New England Fishery Management Council specified a framework that would allow the use of clam and mussel dredges in three areas (McBlair, Old South, and Fishing Rip) within the Great South Channel Habitat Management Area (“GSC HMA”). This was done as part of a Framework adjustment to the Omnibus Essential Fish Habitat Amendment 2. As part of the Framework, due to lack of data, the Council also approved the creation of a research program within two other GSC HMA areas, Rose & Crown and Davis Bank East in order to facilitate generation of additional knowledge to inform the future management process.

2. The goal of the research program is a thorough assessment of the ecology, fisheries resources, and potential consequences of fishing within the HMA. The seafloor of the HMA is dynamic and characterized by thick deposits of shifting sand. Movement of this sand due to bottom currents and storm activity can cover or expose geologic features, such as rocks and boulders, and biogenic reefs, such as mussel beds. These natural processes could have a greater impact on habitat functionality within the HMA than potential impacts of clam dredging.
3. In the context of a dynamic seafloor, the key scientific questions are: 1. what is the spatial extent of detectable or measurable habitat alteration caused by clamming, 2. how long are do these alterations persist (e.g., are they erased by storms?), and 3. what are the demonstrated or plausible impacts (both negative and positive) on fishery resource species.
4. The CFF research program, conducted under an EFP, is focusing on data collection that addresses these questions, so we can test the apparent reason for the designation of HMAs: belief or concern that fishing will adversely impact habitat's functional value for fishery resources species. An alternative view is clam fishing does not adversely impact habitat, or it may even improve it by acting in concert with natural disturbances that general enhance productivity. That is, this HMA is generally good habitat of clams and other species because the high energy environment reworks sediments, as well as mixing the water column, making nutrients available to support production, and fishing's impact on the seafloor enhances this process. The latest research likely supports an alternative view (see references).
5. The research program, utilizing the EFP process, is dependent on using clam vessels for data collection; the research being financially supported by the catch by a per bushel set aside. The use of the vessel is provided in-kind, while the set aside pays for scientific equipment and data analysis. The vessel also pays the cost of the at sea observer on each trip. There is a small clam fleet, approximately 14 vessels, that can fish the HMA. If this segment of the clam industry is shut down due to limited fishing opportunities in the HMA, then the research program ends. EFPs can allow the fishing and the research to continue, but need to be timely so as not to interrupt the time series.
6. Managers currently use habitat complexity as a proxy for productivity due to a dearth of data. Substrate and epifauna shifts are relatively easy to observe; impacts on productivity are subtler and more complex. Habitat function is linked to complexity, albeit without a lot of "on the ground" direct evidence about exactly how reduced complexity affects habitat function and resource productivity
7. A third hypothesis, which has arisen as a result of the current EFP, but cannot be addressed fully through the scope of the current work and EFP, is that productivity in the HMA likely has a significant impact on downstream fisheries which include groundfish, scallops, monkfish, and squid. Understanding this ecosystem connectivity is extremely important for managing impacts of climate change and offshore development (wind, aquaculture, etc.).

8. Closing an area to research efforts, to protect little understood functionalities, does not advance HMA management or remedy current situations. This approach can have adverse regional impacts on the ecosystem as fishing effort is diverted to less productive surrounding areas as well as severe economic consequences as resources are left unused. Gaining more understanding about if and how clamming and mussel dredging restores and/or enhances the productivity and resilience of the ecosystems within the HMA and downstream to the HMA is vital to developing an effective and ecosystem-based Framework for the HMA.
9. The path forward for the Council, is to develop a Habitat Framework to allow clam and mussel fishing in Rose & Crown and Davis Bank East. The Framework should limit frequency and intensity of fishing while mandating the needed data collection; similar to how we are currently using the EFP process. This would allow to Council the balance the need to acquire and gain additional knowledge while at the same time addressing food security and economic sustainability of an industry.
10. Data, obtained through the EFP process (which is the most contemporaneous and comprehensive scientific information about the HMA), will be available for the Council and committees to utilize in the development of such a Framework. Until such a Framework is developed, the EFP process would result in the collection of the data needed to implement an appropriate and effective Framework, while at the same time keeping the small clam fleet, and associated businesses, economically viable, all of which further the purposes of the MSA, the December 2018 Framework adjustment, principals of ecosystem-based management, and the HMA.

References

Powell, E. N., R. Mann, K. M. Kuykendall, M. C. Long and J. R. Timbs (2019). "The intermingling of benthic macroinvertebrate communities during a period of shifting range: The "East of Nantucket" Atlantic Surfclam Survey and the existence of transient multiple stable states." Marine Ecology **40**(4): e12546.

Powell, E. N., R. L. Mann, M. C. Long, J. R. Timbs and K. M. Kuykendall (2021). "The conundrum of biont-free substrates on a high-energy continental shelf: Burial and scour on Nantucket Shoals, Great South Channel." Estuarine, Coastal and Shelf Science **249**: 107089.

Powell, E. N., J. M. Trumble, R. L. Mann, M. C. Long, S. M. Pace, J. R. Timbs and K. M. Kuykendall (2020). "Growth and longevity in surfclams east of Nantucket: Range expansion in response to the post-2000 warming of the North Atlantic." Continental Shelf Research **195**: 104059.



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

January 25, 2022

Todd Schaible, Chief
Regulatory Branch
New York District
U.S. Army Corps of Engineers
26 Federal Plaza
New York, NY 10278-0900

Dear Mr. Schaible:

We have reviewed the proposed reissuance and modification of 41 Nationwide Permits (NWP) published in the Federal Register on December 27, 2021. We have also reviewed the final draft of the Philadelphia District's proposed Regional Conditions for New Jersey and Delaware.

On January 13, 2021, the U.S. Army Corps of Engineers (USACE) published a final rule in the Federal Register announcing the reissuance of 12 existing nationwide permits (NWP) and four new NWP, as well as the reissuance of NWP general conditions and definitions with some modifications. These 16 NWP went into effect on March 15, 2021, and will expire on March 14, 2026:

- NWP 12 – Oil or Natural Gas Pipeline Activities
- NWP 21 – Surface Coal Mining Activities
- NWP 29 – Residential Developments
- NWP 39 – Commercial and Institutional Developments
- NWP 40 – Agricultural Activities
- NWP 42 – Recreational Facilities
- NWP 43 – Stormwater Management Facilities
- NWP 44 – Mining Activities
- NWP 48 – Commercial Shellfish Mariculture Activities
- NWP 50 – Underground Coal Mining Activities
- NWP 51 – Land-Based Renewable Energy Generation Facilities
- NWP 52 – Water-Based Renewable Energy Generation Pilot Projects
- NWP 55 – Seaweed Mariculture Activities
- NWP 56 – Finfish Mariculture Activities
- NWP 57 – Electric Utility Line and Telecommunications Activities
- NWP 58 – Utility Line Activities for Water and Other Substances

In our letter dated September 21, 2021, we provided you with our essential fish habitat (EFH) general concurrence for 13 of the 16 NWP listed above. NWP 52, NWP 55, and NWP 56 were



not included in that General Concurrence and require project specific coordination with us as discussed below and in our previous letter.

This letter follows up that letter and the extensive coordination between our staff over the past two years on the development of regional general and permit-specific conditions for the NWP and serves as our programmatic EFH consultation and General Concurrence for the reissuance of 40 existing and one new NWP which go into effect on February 25, 2022, and expire on March 14, 2026.

The Magnuson Stevens Fishery Conservation and Management Act (MSA) requires federal agencies such as the Corps to consult with us on projects that may adversely affect EFH. 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 consultation process. In addition, the Fish and Wildlife Coordination Act (FWCA) requires all federal agencies to consult with us when proposed actions might result in modifications to a natural stream or body of water. It also requires that federal agencies consider the effects that these projects would have on fish and wildlife and provide for the improvement of these resources. Under this authority we seek to protect and conserve a wide variety of aquatic resources, but especially those that are not federally managed and do not have designated EFH, such as anadromous fish. Because the activities authorized by NWP may impact EFH and other NOAA Fisheries trust resources, consultation with us under these two authorities is required.

Although an EFH assessment was not provided to us for the new and reissued NWP, we have worked closely with your staff over many years, and are able to evaluate the potential effects of some of the NWP on a programmatic basis. As a result, we are able to issue a General Concurrence for several of the NWP listed below. A General Concurrence identifies specific types of federal actions that may adversely affect EFH, but for which no further consultation is required because we have determined, through an analysis of that type of action, that the action will likely result in no more than minimal adverse effects both individually and cumulatively. For actions to qualify for General Concurrence, we must determine that the actions meet all of the following criteria pursuant to 50 CFR 600.920(9): 1) The actions must be similar in nature and similar in their impact on EFH; 2) The actions must not cause greater than minimal adverse effects on EFH when implemented individually, and; 3) The actions must not cause greater than minimal cumulative adverse effects on EFH.

For some of the NWP where the direct, indirect, individual, and cumulative effects cannot be evaluated programmatically (i.e., the actions authorized may have a more than minimal adverse effect to EFH on an individual or cumulative basis, or insufficient information is available to evaluate effects), individual coordination with us through the pre-construction notification (PCN) process is necessary to comply with the consultation requirements of the MSA and FWCA. In addition, PCNs to us are necessary when NWP applicants request waivers of some of the regional conditions, such as time of year restrictions on in-water work as noted in the regional general conditions and some of the permit-specific regional conditions, as well as for certain activities that are proposed with 50 feet of submerged aquatic vegetation.

EFH General Concurrence

The following 2021 NWP's qualify for our General Concurrence provided they meet the provisions of the General Conditions of the NWP's and the Philadelphia District's Regional Conditions applicable to all NWP's (unless otherwise stated) or specific NWP's:

1. Aids to Navigation
2. Structures in Artificial Canals
3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices
5. Scientific Measurement Devices
6. Survey Activities
7. Outfall Structures and Associated Intake Structures
8. Oil and Gas Structures on the Outer Continental Shelf
9. Structures in Fleeting and Anchorage Areas
10. Mooring Buoys
11. Temporary Recreational Structures
13. Bank Stabilization
14. Linear Transportation Projects
15. U.S. Coast Guard Approved Bridges
16. Return Water from Uplands Contained Disposal Areas
17. Hydropower Projects
18. Minor Discharges
19. Minor Dredging
20. Response Operations for Oil or Hazardous Substances
22. Removal of Vessels
23. Approved Categorical Exclusions
24. Indian Tribe or State Administered 404 Programs
25. Structural Discharges
28. Modifications of Existing Marinas
30. Moist Soil Management for Wildlife
31. Maintenance of Existing Flood Control Facilities
32. Completed Enforcement Actions
33. Temporary Construction, Access and Dewatering
34. Cranberry Production Activities
35. Maintenance Dredging of Existing Basins
36. Boat Ramps
37. Emergency Watershed Protection and Rehabilitation
41. Reshaping Existing Drainage Ditches
45. Repair of Uplands Damaged by Discrete Events
46. Discharge in Ditches
49. Coal Remining Activities
59. Water Reclamation and Reuse Facilities

Applicability

This General Concurrence applies only to the NWP's listed above. For the remaining NWP's, we request the submission of a PCN for activities that are proposed for each of the following:

- NWP 27 - Aquatic Habitat Restoration, Establishment and Enhancement Activities
- NWP 38 - Cleanup of Hazardous Waste Sites
 - in tidal waters and in non-tidal areas adjacent to tidal waters and waterways supporting anadromous fish migration and spawning
- NWP 53 - Removal of Low Head Dams
- NWP 54 - Living Shorelines

In addition, this General Concurrence only to activities within the States of New Jersey and Delaware. Although portions of Pennsylvania are under the jurisdiction of the Philadelphia District, the Baltimore District has the lead in developing regional conditions much of the state, including those areas under the Philadelphia District's jurisdiction. A separate General Concurrence was issued to the Baltimore District for NWP's within Pennsylvania.

Essential Fish Habitat Mapping

EFH mapping is now available on our [EFH Mapper](#). Additional information on EFH and FWCA consultations, EFH Frequently Asked Questions, a revised EFH assessment worksheet and links to the federal fisheries management councils can be found on the [Habitat and Ecosystem Services Division website](#) and our [EFH consultation](#) website.

Pre-Construction Notifications and Comment Period

Because consultations under the MSA and FWCA are between NOAA Fisheries and the lead federal agency, PCNs, including those that request waivers to the in-water work time of year restrictions included in the regional conditions should be transmitted to us by the USACE, not the project proponent or applicant. For NWP's that always require a PCN to us, the PCN should be accompanied by an EFH assessment. The [EFH assessment worksheet](#) available on our [EFH consultation website](#) can be used or the assessment can be in another format as long as it included the following required elements:

- A description of the proposed action.
- An analysis of the potential adverse effects of the action on EFH, and the managed species.
- The federal agency's conclusions regarding the effects of the action on EFH.
- Proposed mitigation, if applicable.

Additional information, such as an analysis of alternatives, the results of on-site inspections, literature reviews and the views of recognized experts may also be necessary depending upon the scale and nature of the adverse effects to EFH.

A minimum 30-day comment period is required for us to review required PCNs under the MSA for EFH consultation procedures [50 CFR 600.920(h)(a)]. Because our EFH review extends into non-tidal rivers and streams supporting migratory fish passage (important prey for federal predatory species), a 30-day review and comment period should be anticipated for all projects in tidal and non-tidal rivers and streams. However, a 15-day comment period (with the option to extend to 30-days) is typically sufficient if we determine no additional information is necessary to complete our EFH review. Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for our determination.

Project Tracking

Our EFH regulations require that actions qualifying for General Concurrence must be tracked to ensure that their cumulative effects are no more than minimal. Tracking should include numbers of actions and the amount and type of habitat adversely affected, and should specify the baseline against which the actions will be tracked. This information should be provided to us on an annual basis, generally at the end of each fiscal year. The information may be provided to us in a spreadsheet format that includes the NWP issued, closure method, DA number, applicant, authority, county, and latitude and longitude. We will reach out to your staff near the end of each fiscal year so that the information can be included in our required internal reporting on programmatic consultations and General Concurrences.

Conclusion

Thank you and your staff for all of their efforts to work with us to develop regional general conditions and permit-specific regional conditions that avoid and minimize adverse effects to EFH and other NOAA trust resources. These efforts have allowed us to reduce the number of NWPs that require individual coordination and consultation between our agencies, improving consultation and permitting efficiencies while still protecting aquatic resources. Should you have any questions or to discuss this matter further, please contact Karen Greene at (978) 559 9871 (karen.greene@noaa.gov), Keith Hanson at (410) 267-5650 (keith.hanson@noaa.gov) or Jessie Murray at (978) 675-2175 (jessie.murray@noaa.gov).

Sincerely,



Louis A. Chiarella
Assistant Regional Administrator
for Habitat and Ecosystem Services

cc: USACE NAP – R. Deems, M. Yost
USACE - NAN – R. Pinzon, R. Miranda, C. Minck
NOAA PRD – M. Murray-Brown, E. Carson-Supino, P. Johnsen
MAFMC – Chris Moore
NEFMC – Tom Nies
ASMFC – Lisa Havel