

## **Appendices D: Correspondences**

**Correspondence A – BRP WW 07 and 10 Water Quality  
Certification Application Cover Letter**



Projects:\4469 Chelmsford Bank Stabilization\401 WQC

November 15, 2016

**PRINCIPALS**

Theodore A Barten, PE  
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Stephen H Slocomb, PE  
David E Hewett, LEED AP  
Dwight R Dunk, LPD  
David C. Klinch, PWS, PMP

Ms. Heidi Davis  
MassDEP Northeast Regional Office  
205B Lowell Street  
Wilmington, Massachusetts 01887

Mr. Ken Chin  
MassDEP 401 Dredging Program  
1 Winter Street  
Boston, MA 02108

**Subject: BRP WW 07 and BRP WW 10 Water Quality Certification Applications,  
Merrimack River Bank Stabilization at Wellman Avenue, Chelmsford, MA**

Dear Ms. Davis and Mr. Chin:

On behalf of the Town of Chelmsford ("Applicant" or "Town"), Epsilon Associates Inc. ("Epsilon") is pleased to submit this application package for the above referenced Project to the Massachusetts Department of Environmental Protection ("MassDEP") for a Water Quality Certification under Section 401 of the Clean Water Act. These applications were prepared in accordance with the Federal Water Pollution Control Act (33 U.S.C. 1341 et seq., §. 401); Massachusetts Clean Water Act, (M.G.L. c. 21, § 26-53); and 401 Water Quality Certification Regulations (314 CMR 9.00). This project completed MEPA review (EEA No. 15572) and the Secretary determined no further MEPA review was required.

Epsilon has included one full copy of the BRP WW 10 application to the Northeast Regional Office ("NERO") and one full copy of the BRP WW 07 application to the 401 Dredging Program Office in Boston. Please note, copies of both applications are also being sent to the Chelmsford Conservation Commission and to the Chelmsford Board of Health. The Applicant submitted a joint Wetlands Protection Act / Mass. Endangered Species Act filing to the Chelmsford Conservation Commission and NHESP on October 27, 2016, with a hard copy mailed to MassDEP NERO. The Applicant is preparing a MassDEP Chapter 91 License application and an application the Army Corps of Engineers. Both of which are anticipated to be submitted in within the next two weeks.

**ASSOCIATES**

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As explained in the enclosed application package, the Project is needed to stabilize approximately 3,950 linear feet of the Merrimack River bank adjacent to Wellman Avenue. This reach of the riverbank is experiencing significant erosion, and the purpose of this project is to protect the existing sanitary sewer located adjacent to the bank from future exposure and rupture. The Applicant is acting proactively to protect the sewer from future damage. Avoiding a sewer break protects the public health of residents served by the sewer and avoids potential environmental damage caused by a raw sewage discharge to the Merrimack River.

Work requiring Water Quality Certification includes stabilization of the river bank, specifically installation of a foundation mattress overlaid with a stone sill, and back fill riverward, or below, the ordinary high water of the Merrimack River. This activity will occur within approximately 59,250 square feet ("s.f.") of waters of the U.S. in the Commonwealth. To create a level surface and to install the mattress and stone sill, an approximately 13 foot wide by 2 foot deep by 3,700 foot long excavation (dredging) is needed below ordinary high water, corresponding to approximately 3,600 cubic yards of dredging. Laboratory testing shows this sediment meets S-1 standards and therefore can, and will, be re-used on-site as part of the bank stabilization project. No in-water or off-site disposal of dredge material is proposed.

If you have any questions regarding the BRP WW 07 or BRP WW 10 applications, please do not hesitate to contact me at (978) 897-7100 or via e-mail at [ddunk@epsilonassociates.com](mailto:ddunk@epsilonassociates.com).

Sincerely,  
EPSILON ASSOCIATES, INC.



Dwight R. Dunk, LPD, PWS, BCES  
Principal

cc: S. Janhle, Town of Chelmsford DPW  
S. Barbera, Harvard Management Solutions, Inc.  
V. Hagopian, GEI Consultants

**Correspondence B - NAE-2016-1969 Merrimack River Bank  
Stabilization Application Cover Letter**



Projects:\4469\404 Army Corps Permit\

November 22, 2016

PRINCIPALS

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Ms. Barbara Newman, Branch Chief  
United States Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742

**Subject: NAE-2016-1969 Merrimack River Bank Stabilization, Chelmsford, MA  
Application of Permit Coverage as Massachusetts General Permit #7 –  
Bank Stabilization**

Dear Ms. Newman:

On behalf of the Town of Chelmsford ("Applicant"), Epsilon Associates Inc. ("Epsilon") submits this application for a U.S. Army Corps of Engineers Permit pursuant to the Massachusetts General Permits ("G.P."), specifically seeking coverage as a Pre-Construction Notification in accordance with G.P. No. 7 – Bank Stabilization. Enclosed is a completed ENG Form 4345, abutters list, notification to the Tribal Historic Preservation Officers ("THPOs") and proof of previous consultation with the State Historic Preservation Officer ("SHPO"), and a copy of the Massachusetts Water Quality Certification ("WQC") Application package. Although this project involves work on over 500 linear feet of bank, we respectfully request review as a Pre-Construction Notification ("PCN"); because it is our opinion the project results in no more than "minimal adverse effects." Please see the attached WQC Application Package for the alternatives analysis, mitigation measures and other project information, which we believe supports this determination.

The Applicant and area residents worked together to seek funds from the Federal Emergency Management Agency ("FEMA") and the Massachusetts Emergency Management Agency ("MEMA") to design, permit and construct the proposed Project. The FEMA Grant Application was submitted in April 2012, and the FEMA/MEMA Hazard Mitigation Grant (HMGP 4028-09) between FEMA and Chelmsford was signed in December 2015.

Samuel G. Mygatt, LLB  
1943-2010

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The basic project purpose is to stabilize this approximately 3,950 linear foot reach of the Merrimack River bank which is experiencing significant erosion. The goal is to protect the existing sanitary sewer, located adjacent to the top of the bank, from future exposure and rupture. The Proponent is acting proactively to protect the sewer from future damage. Avoiding a sewer break protects the public health of residents served by the sewer and avoids potential environmental damage caused by a raw sewage discharge to the Merrimack River.

Work requiring a U.S. Army Corps Permit includes stabilization of the river bank, specifically installation of a foundation mattress overlaid with a stone sill, and back fill landward of the sill to reconstruct and stabilize this reach of the Merrimack River bank. This activity will occur within approximately 59,250 square feet of waters of the U.S. To create a level surface and to install the mattress and stone sill, an approximately 13 foot wide by 2 foot deep by 3,700 foot long excavation (dredging) is needed below ordinary high water, corresponding to approximately 3,600 cubic yards of dredging. Laboratory testing shows this sediment meets Massachusetts Department of Environmental Protection (“MassDEP”) S-1 standards and therefore can, and will, be re-used on-site as part of the bank stabilization project. No in-water or off-site disposal of dredge material is proposed; and no work below ordinary low water is proposed.

The Project team met with local and state agencies in July 2016 to review Project data and to discuss the initial conceptual bank stabilization plans. Based on that pre-application meeting, and additional comments received through the Mass. Environmental Policy Act (“MEPA”) review process, the design was revised to address comments from the MassDEP and other commenters. The proposed Project presented in this application incorporates comments by MassDEP, is consistent with the conceptual design submitted to FEMA in the grant application, and seeks to minimize environmental impacts while concomitantly providing long-term bank stabilization.

Please note, FEMA recently determined they need to prepare an Environmental Assessment (“EA”) pursuant to FEMA National Environmental Policy Act implementation regulations. In compliance with Section 106 of the National Historic Preservation Act we expect that FEMA will consult with the SHPO and applicable THPOs as a component of the EA. However, for this PCN review we have notified the applicable THPOs, see copies of notification forms, and provide copies of prior correspondence with the SHPO received during the MEPA review

Ms. Barbara Newman  
U.S. Army Corps of Engineers – New England District  
November 22, 2016

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process for your review. We expect that FEMA will initiate additional consultation with the SHPO and THPOs in support of the EA.

We look forward to working with you on this important project. Please contact me at (978) 897-7100 or via e-mail at [ddunk@epsilonassociates.com](mailto:ddunk@epsilonassociates.com) to schedule a site visit or with any other questions or comments on this Project.

Sincerely,  
EPSILON ASSOCIATES, INC.



Dwight R. Dunk, LPD, PWS, BCES  
Principal

cc: S. Janhle, Town of Chelmsford  
S. Barbera, Harvard Management Solutions, Inc.

Encl.

- Attachment 1 – ENG 4345 Form
- Attachment 2 – Abutters List
- Attachment 3 – Agency Correspondence (SHPO, THPO, NHESP)
- Attachment 4 - WQC Application Package (bound separately)



**Correspondence C – USFW Northern Long-eared Bat Rule  
4(d) Notification Form**

## Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

<b>Information to Determine 4(d) Rule Compliance:</b>	<b>YES</b>	<b>NO</b>
1. Does the project occur wholly outside of the WNS Zone <sup>1</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Have you contacted the appropriate agency <sup>2</sup> to determine if your project is near known hibernacula or maternity roost trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Could the project disturb hibernating NLEBs in a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Could the project alter the entrance or interior environment of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

**Agency and Applicant**<sup>3</sup>: Grant Management: FEMA Region 1, [Brandon.webb@fema.dhs.gov](mailto:Brandon.webb@fema.dhs.gov), 917-753-2821 for Town of North Chelmsford

**Project Name:** Merrimack River Bank Stabilization

**Project Location:** North Chelmsford, MA. Starting point: 42.647644°, -71.392505° Ending Point: 42.645174°, -71.379039°

### **Basic Project Description:**

Bioengineering Bank Stabilization would stabilize the bank using a mixture of structural components such as a stone toe and natural components such as timber, coir rolls, and living vegetation. There are three stabilization techniques proposed:

- Bank Support for Edge Type A: Work involves installation of timber toe protection and vegetation management on the slope.

<sup>1</sup> <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

<sup>2</sup> See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

<sup>3</sup> If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

- Bank Repair for Edge Type B: Work involves installation of stone sill along the toe of slope, and placing soil behind the sill which would establish a shallow slope. One coir log would be placed on top of the stone sill to hold the soil in place. Any placed and bare soils on the slope would be vegetated with native plants for stabilization.
- Bank Reconstruction for Edge Type C: Work involves installation of a stone sill along the toe of slope and restoring the entire slope cross-section with several rows of coir fiber rolls which would be installed in a step-wise manner. The slope would then be re-vegetated using native plants.

In all edge type zones, trees on the slope and along the top of the slope that are deemed in imminent danger of toppling would be removed. For the Bank Reconstruction, the offset from the toe of slope to the outboard limit of the stone sill/marine mattress would range from 7.5 to 18.5 feet with an average of 14 feet. The Bank Repair and Bank Support work would offset between 10 to 14 feet. Work would occur in approximately 4,250 linear feet of inland bank, 145,250 square feet of riverfront area and bordering land, and 41,500 square feet of land under water sandy soil for stone sill installation.

<b>General Project Information</b>	<b>YES</b>	<b>NO</b>
Does the project occur within 0.25 miles of a known hibernaculum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project occur within 150 feet of a known maternity roost tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project include forest conversion? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of forest conversion		
If known, estimated acres of forest conversion from April 1 to October 31		
If known, estimated acres of forest conversion from June 1 to July 31		
Does the project include timber harvest? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of timber harvest		
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated total acres of prescribed fire		
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Estimated wind capacity (MW)		

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: \_\_\_\_\_

Date Submitted: 3/27/2017

Attached:

- Site Location
- Engineering Plans

**Correspondence D – NOAA NMFS Consultation and  
Concurrence.**

**NOAA FISHERIES**  
**GREATER ATLANTIC REGIONAL FISHERIES OFFICE**  
**Essential Fish Habitat (EFH) Consultation Guidance**  
**EFH ASSESSMENT WORKSHEET**

**Introduction:**

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) mandates that federal agencies conduct an essential fish habitat (EFH) consultation with NOAA Fisheries regarding any of their actions authorized, funded, or undertaken that may adversely affect EFH. An adverse effect means any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

This worksheet has been designed to assist in determining whether a consultation is necessary and in preparing EFH assessments. This worksheet should be used as your EFH assessment or as a guideline for the development of your EFH assessment. At a minimum, all the information required to complete this worksheet should be included in your EFH assessment. If the answers in the worksheet do not fully evaluate the adverse effects to EFH, we may request additional information in order to complete the consultation.

An expanded EFH assessment may be required for more complex projects in order to fully characterize the effects of the project and the avoidance and minimization of impacts to EFH. While the EFH worksheet may be used for larger projects, the format may not be sufficient to incorporate the extent of detail required, and a separate EFH assessment may be developed. However, regardless of format, the analysis outlined in this worksheet should be included for an expanded EFH assessment, along with additional information that may be necessary. This additional information includes:

- the results of on-site inspections to evaluate the habitat and site-specific effects
- the views of recognized experts on the habitat or the species that may be affected
- a review of pertinent literature and related information
- an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH.

**Your analysis of adverse effects to EFH under the MSA should focus on impacts to the habitat for all life stages of species with designated EFH, rather than individual responses of fish species. Fish habitat includes the substrate and benthic resources (e.g., submerged aquatic vegetation, shellfish beds, salt marsh wetlands), as well as the water column and prey species.**

Consultation with us may also be necessary if a proposed action results in adverse impacts to other NOAA-trust resources. Part 6 of the worksheet is designed to help assess the effects of the action on other NOAA-trust resources. This helps maintain efficiency in our interagency coordination process. In addition, further consultation may be required if a proposed action impacts marine mammals or threatened and endangered species for which we are responsible. Staff from our Greater Atlantic Regional Fisheries Office, Protected Resources Division should be contacted regarding potential impacts to marine mammals or threatened and endangered species.

## Instructions for Use:

Federal agencies must submit an EFH assessment to NOAA Fisheries as part of the EFH consultation. Your EFH assessment must include:

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

In order for this worksheet to be considered as your EFH assessment, you must answer the questions in this worksheet fully and with as much detail as available. Give brief explanations for each answer.

Federal action agencies or the non-federal designated lead agency should submit the completed worksheet to NOAA Fisheries Greater Atlantic Regional Fisheries Office, Habitat Conservation Division (HCD) with the public notice or project application. Include project plans showing existing and proposed conditions, all waters of the U.S. on the project site, with mean low water (MLW), mean high water (MHW), high tide line (HTL), and water depths clearly marked and sensitive habitats mapped, including special aquatic sites (submerged aquatic vegetation, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom habitat areas and shellfish beds, as well as any available site photographs.

For most consultations, NOAA Fisheries has 30 days to provide EFH conservation recommendations once we receive a complete EFH assessment. Submitting all necessary information at once minimizes delays in review and keeps review timelines consistent. Delays in providing a complete EFH assessment can result in our consultation review period extending beyond the public comment period for a particular project.

The information contained on the [HCD website](#) will assist you in completing this worksheet. The HCD website contains information regarding: the EFH consultation process; Guide to EFH Designations which provides a geographic species list; Guide to EFH Species Descriptions which provides the legal description of EFH as well as important ecological information for each species and life stage; and other EFH reference documents including examples of EFH assessments and EFH consultations.

Our website also includes a link to the [NOAA EFH Mapper](#) .

We would note that the EFH Mapper is currently being updated and revised. Should you use the EFH Mapper to identify federally managed species with designated EFH in your project area, we recommend checking this list against the [Guide to Essential Fish Habitat Designations in the Northeast](#) to ensure a complete and accurate list is provided.

# EFH ASSESSMENT WORKSHEET FOR FEDERAL AGENCIES (modified 3/2016)

PROJECT NAME:

DATE:

PROJECT NO.:

LOCATION (Water body, county, physical address):

PREPARER:

**Step 1:** Use the Habitat Conservation Division EFH webpage's [Guide to Essential Fish Habitat Designations](#) in the Northeastern United States to generate the list of designated EFH for federally-managed species for the geographic area of interest. Use the species list as part of the initial screening process to determine if EFH for those species occurs in the vicinity of the proposed action. The list can be included as an attachment to the worksheet. Make a preliminary determination on the need to conduct an EFH consultation.

1. INITIAL CONSIDERATIONS		
EFH Designations	Yes	No
Is the action located in or adjacent to EFH designated for eggs? List the species:		
Is the action located in or adjacent to EFH designated for larvae? List the species:		
Is the action located in or adjacent to EFH designated for juveniles? List the species:		



<p>Is the action located in or adjacent to EFH designated for adults or spawning adults? List the species:</p>		
<p>If you answered 'no' to all questions above, then an EFH consultation is not required - go to Section 5.          If you answered 'yes' to any of the above questions, proceed to Section 2 and complete the remainder of the worksheet.</p>		

**Step 2:** In order to assess impacts, it is critical to know the habitat characteristics of the site before the activity is undertaken. Use existing information, to the extent possible, in answering these questions. Identify the sources of the information provided and provide as much description as available. These should not be yes or no answers. Please note that there may be circumstances in which new information must be collected to appropriately characterize the site and assess impacts. Project plans that show the location and extent of sensitive habitats, as well as water depths, the HTL, MHW and MLW should be provided.

2. SITE CHARACTERISTICS	
Site Characteristics	Description
Is the site intertidal, sub-tidal, or water column?	
What are the sediment characteristics?	
Is there submerged aquatic vegetation (SAV) at or adjacent to project site? If so describe the SAV species and spatial extent.	
Are there wetlands present on or adjacent to the site? If so, describe the spatial extent and vegetation types.	

<p><b>Is there shellfish present at or adjacent to the project site? If so, please describe the spatial extent and species present.</b></p>	
<p><b>Are there mudflats present at or adjacent to the project site? If so please describe the spatial extent.</b></p>	
<p><b>Is there rocky or cobble bottom habitat present at or adjacent to the project site? If so, please describe the spatial extent.</b></p>	
<p><b>Is Habitat Area of Particular Concern (HAPC) designated at or near the site? If so for which species, what type habitat type, size, characteristics?</b></p>	
<p><b>What is the typical salinity, depth and water temperature regime/range?</b></p>	
<p><b>What is the normal frequency of site disturbance, both natural and man-made?</b></p>	
<p><b>What is the area of proposed impact (work footprint &amp; far afield)?</b></p>	

**Step 3:** This section is used to describe the anticipated impacts from the proposed action on the physical/chemical/biological environment at the project site and areas adjacent to the site that may be affected.

<b>3. DESCRIPTION OF IMPACTS</b>			
<b>Impacts</b>	<b>Y</b>	<b>N</b>	<b>Description</b>
<b>Nature and duration of activity(s). Clearly describe the activities proposed and the duration of any disturbances.</b>			
<b>Will the benthic community be disturbed? If no, why not? If yes, describe in detail how the benthos will be impacted.</b>			
<b>Will SAV be impacted? If no, why not? If yes, describe in detail how the SAV will be impacted. Consider both direct and indirect impacts. Provide details of any SAV survey conducted at the site.</b>			
<b>Will salt marsh habitat be impacted? If no, why not? If yes, describe in detail how wetlands will be impacted. What is the aerial extent of the impacts? Are the effects temporary or permanent?</b>			

<p><b>Will mudflat habitat be impacted? If no, why not? If yes, describe in detail how mudflats will be impacted. What is the aerial extent of the impacts? Are the effects temporary or permanent?</b></p>			
<p><b>Will shellfish habitat be impacted? If so, provide in detail how the shellfish habitat will be impacted. What is the aerial extent of the impact? Provide details of any shellfish survey conducted at the site.</b></p>			
<p><b>Will hard bottom (rocky, cobble, gravel) habitat be impacted at the site? If so, provide in detail how the hard bottom will be impacted. What is the aerial extent of the impact?</b></p>			
<p><b>Will sediments be altered and/or sedimentation rates change? If no, why not? If yes, describe how.</b></p>			
<p><b>Will turbidity increase? If no, why not? If yes, describe the causes, the extent of the effects, and the duration.</b></p>			

<p><b>Will water depth change? What are the current and proposed depths?</b></p>			
<p><b>Will contaminants be released into sediments or water column? If yes, describe the nature of the contaminants and the extent of the effects.</b></p>			
<p><b>Will tidal flow, currents, or wave patterns be altered? If no, why not? If yes, describe in detail how.</b></p>			
<p><b>Will water quality be altered? If no, why not? If yes, describe in detail how. If the effects are temporary, describe the duration of the impact.</b></p>			
<p><b>Will ambient noise levels change? If no, why not? If yes, describe in detail how. If the effects are temporary, describe the duration and degree of impact.</b></p>			
<p><b>Does the action have the potential to impact prey species of federally managed fish with EFH designations?</b></p>			

**Step 4:** This section is used to evaluate the consequences of the proposed action on the functions and values of EFH as well as the vulnerability of the EFH species and their life stages. Identify which species (from the list generated in Step 1) will be adversely impacted from the action. Assessment of EFH impacts should be based upon the site characteristics identified in Step 2 and the nature of the impacts described within Step 3. The [Guide to EFH Descriptions webpage](#) should be used during this assessment to determine the ecological parameters/preferences associated with each species listed and the potential impact to those parameters.

4. EFH ASSESSMENT			
Functions and Values	Y	N	Describe habitat type, species and life stages to be adversely impacted
Will functions and values of EFH be impacted for:			
<b>Spawning</b> If yes, describe in detail how, and for which species. Describe how adverse effects will be avoided and minimized.			
<b>Nursery</b> If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.			
<b>Forage</b> If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.			
<b>Shelter</b> If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.			

<p>Will impacts be temporary or permanent? Please indicate in description box and describe the duration of the impacts.</p>			
<p>Will compensatory mitigation be used? If no, why not? Describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation plan, if applicable.</p>			

**Step 5:** This section provides the federal agency's determination on the degree of impact to EFH from the proposed action. The EFH determination also dictates the type of EFH consultation that will be required with NOAA Fisheries.

Please note: if information provided in the worksheet is insufficient to allow NOAA Fisheries to complete the EFH consultation additional information will be requested.

<b>5. DETERMINATION OF IMPACT</b>		
<b>Federal Agency's EFH Determination</b>		
<p>Overall degree of adverse effects on EFH (not including compensatory mitigation) will be:  (check the appropriate statement)</p>		<p>There is no adverse effect on EFH or no EFH is designated at the project site.  <b>EFH Consultation is not required.</b></p>
		<p>The adverse effect on EFH is not substantial. This means that the adverse effects are either no more than minimal, temporary, or that they can be alleviated with minor project modifications or conservation recommendations.  <b>This is a request for an abbreviated EFH consultation.</b></p>
		<p>The adverse effect on EFH is substantial.  <b>This is a request for an expanded EFH consultation.</b></p>

**Step 6: Consultation with NOAA Fisheries may also be required if the proposed action results in adverse impacts to other NOAA-trust resources, such as anadromous fish, shellfish, crustaceans, or their habitats as part of the Fish and Wildlife Coordination Act. Some examples of other NOAA-trust resources are listed below. Inquiries regarding potential impacts to marine mammals or threatened/endangered species should be directed to NOAA Fisheries' Protected Resources Division.**

<b>6. OTHER NOAA-TRUST RESOURCES IMPACT ASSESSMENT</b>	
<b>Species known to occur at site (list others that may apply)</b>	<b>Describe habitat impact type (i.e., physical, chemical, or biological disruption of spawning and/or egg development habitat, juvenile nursery and/or adult feeding or migration habitat). Please note, impacts to federally listed species of fish, sea turtles, and marine mammals must be coordinated with the GARFO Protected Resources Division.</b>
<b>alewife</b>	
<b>American eel</b>	
<b>American shad</b>	
<b>Atlantic menhaden</b>	
<b>blue crab</b>	
<b>blue mussel</b>	
<b>blueback herring</b>	



<b>Eastern oyster</b>	
<b>horseshoe crab</b>	
<b>quahog</b>	
<b>soft-shell clams</b>	
<b>striped bass</b>	
<b>other species:</b>	

## **Useful Links**

[National Wetland Inventory Maps](#)

[EPA's National Estuaries Program](#)

[Northeast Regional Ocean Council \(NROC\) Data](#)

[Mid-Atlantic Regional Council on the Ocean \(MARCO\) Data](#)

## **Resources by State:**

### **Maine**

[Eelgrass maps](#)

[Maine Office of GIS Data Catalog](#)

[Casco Bay Estuary Partnership](#)

[Maine GIS Stream Habitat Viewer](#)

### **New Hampshire**

[New Hampshire's Statewide GIS Clearinghouse, NH GRANIT](#)

[New Hampshire Coastal Viewer](#)

### **Massachusetts**

[Eelgrass maps](#)

[MADMF Recommended Time of Year Restrictions Document](#)

[Massachusetts Bays National Estuary Program](#)

[Buzzards Bay National Estuary Program](#)

[Massachusetts Division of Marine Fisheries](#)

[Massachusetts Office of Coastal Zone Management](#)

### **Rhode Island**

[Eelgrass maps](#)

[Narraganset Bay Estuary Program](#)

[Rhode Island Division of Marine Fisheries](#)

[Rhode Island Coastal Resources Management Council](#)

## **Connecticut**

[Eelgrass Maps](#)

[Long Island Sound Study](#)

[CT GIS Resources](#)

[CT DEEP Office of Long Island Sound Programs and Fisheries](#)

[CT Bureau of Aquaculture Shellfish](#)

[Maps CT River Watershed Council](#)

## **New York**

[Eelgrass report](#)

[Peconic Estuary Program](#)

[NY/NJ Harbor Estuary](#)

## **New Jersey**

[Submerged Aquatic Vegetation mapping](#)

[Barnegat Bay Partnership](#)

## **Delaware**

[Partnership for the Delaware Estuary](#)

[Center for Delaware Inland Bays](#)

## **Maryland**

[Submerged Aquatic Vegetation mapping](#)

[MERLIN](#)

[Maryland Coastal Bays Program](#)

## **Virginia**

[Submerged Aquatic Vegetation mapping](#)

**From:**

**Subject:**

**Date:**

Re: DR-4028-MA Merrimack River Bioengineered Bank Stabilization EFH abbreviated assessment

Tuesday, July 25, 2017 2:49:06 PM

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Brandon,

Based upon the information in the EFH assessment, we have determined that the proposed project would have minimal adverse effect on EFH for Atlantic salmon. In addition, the project area will have minimal effects on other NOAA-trust resources, including those covered under the Fish and Wildlife Coordination Act. Therefore, we have no EFH conservation recommendations to provide to you for this action pursuant to Section 305(b)(4)(A) of the Magnuson-Stevens Act.

Thanks,

Mike

On Tue, Jul 25, 2017 at 2:30 PM, [REDACTED] wrote:

Mike,

Please find attached FEMA's EHF assessment worksheet for the Chelmsford, MA bank stabilization project on the Merrimack River. This is a request for an abbreviated EFH consultation and please let me know if you require more information. Thank you.

Brandon M Webb

Environmental Specialist

Mitigation FEMA Region 1

99 High St Boston, MA 02110

[REDACTED]

[REDACTED]

--

Michael R. Johnson  
U.S. Department of Commerce  
NOAA Fisheries  
Greater Atlantic Regional Fisheries Office  
(formerly, Northeast Regional Office)

Habitat Conservation Division  
55 Great Republic Drive  
Gloucester, MA 01930



<http://www.greateratlantic.fisheries.noaa.gov/>



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