



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

FIVE POST OFFICE SQUARE - SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

April 18, 2013

Christine Vaccaro  
Section 7 Coordinator  
National Marine Fisheries Service  
Northeast Regional Office  
Protected Resources Division  
55 Great Republic Drive  
Gloucester, MA 01930-2276

Re: New Bedford Harbor-South Terminal Project

Dear Ms. Vaccaro:

The Commonwealth of Massachusetts has requested a modification to EPA's Final Determination Document on the proposed marine South Terminal Project in New Bedford Harbor. The Commonwealth seeks EPA's approval to allow expanded dredging of approximately 6 acres beyond what EPA approved in the Final Determination, and to allow blasting for rock removal. EPA intends to approve these proposed project modifications with conditions, as discussed further below. The intent of this letter is to re-initiate consultation under Section 7 of the Endangered Species Act of 1973, as amended, and provide our biological assessment and conclusions regarding potential effects of the project modifications on the Atlantic Sturgeon. EPA's November 19, 2012 Final Determination specifically contemplated the need to re-initiate consultation in the event that the Commonwealth decided to pursue these modifications.

### **Proposed Project Modifications**

The Commonwealth has provided additional documentation on the size of vessels that may use the port and thus has requested to expand the dredge footprint of the project.<sup>1</sup> The approach channel to the terminal will be expanded in width by 50 feet. This expansion will occur on the western edge of the proposed channel (Figure 1). The Commonwealth will expand the deep draft berthing area 200 feet to the north (Figure 2). In addition, the Commonwealth proposes to use blasting as a method for removal of rock in the terminal area. The potential impacts associated with blasting, as well as other rock

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<sup>1</sup> The Commonwealth has also committed to funding the additional dredging and accomplishing it at the same time as the rest of the project, in contrast with its original proposal, thereby addressing concerns about the speculative nature of the original proposal.

removal techniques, can be evaluated based on the November 15, 2012 acoustic modeling report prepared by JASCO Applied Sciences, which describes peak pressure level and impact level thresholds of explosive charges up to 50 pounds. EPA received this report from the Commonwealth on November 16, 2012, and we provided it to your office on January 17, 2013.

### **Atlantic Sturgeon**

There have been no recorded sightings of Atlantic Sturgeon in New Bedford Harbor. Atlantic sturgeon have been known to utilize the nearby Taunton River for spawning. It is our understanding from discussions with NMFS that sturgeon eggs, larvae and juveniles are not expected to occur within New Bedford Harbor, but sub-adult and adult sturgeon could use the area for foraging. If sturgeon did use New Bedford Harbor, it would most likely be from March to November.

### **In-Water Activities that Could Impact Atlantic Sturgeon**

#### **Dredging**

The proposed modifications will result in approximately an additional 6 acres of dredging of the seafloor.<sup>2</sup> Dredging is proposed to begin in April and continue for about 7 months. Thus, dredging will occur during the time of year when Atlantic sturgeon could be present.

To mitigate potential impacts to Atlantic sturgeon and other fishery resources, EPA will require the following measures:

1. The use of an environmental bucket for dredging of fine grained materials;
2. The implementation of turbidity monitoring with action levels, which may trigger the use of silt curtains or other engineering controls;
3. The use of a series of barriers that will form the basis of a fish exclusion system around the project area. The Commonwealth will erect silt barriers that will be anchored to the bottom and build a bubble curtain to encircle the project area. In addition, weir nets will be deployed outside of these barriers to provide a second obstacle to benthic fish movement. These fish exclusion devices will be deployed prior to construction begins in January and will remain in place until June 15<sup>th</sup> to protect winter flounder spawning; and
4. A fish monitoring program will be instituted for the project area during the period of time when the fish exclusion devices are in place. On a weekly basis, the Commonwealth will monitor for the presence of fish in the project area. If fish are present, multiple fish startle systems will be deployed in an attempt to get the fish to move out of the project area.

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<sup>2</sup> This additional acreage includes a small amount of dredging (0.22 acres) that may be necessary for expansion of CAD cell #3.

## **Blasting**

Based on our review of JASCO's acoustic modeling report and other information in the record, our conclusions are summarized below:

1. Potential acoustic impacts from explosive charges  $\leq$  50 pounds would be primarily limited to behavioral (avoidance) effects.
2. Blasting results in a larger area of a potential impact zone than other rock removal techniques.
3. Potential acoustic impacts can be expected to be limited to an area surrounding the project site that represents less than approximately 1/3 of the cross-sectional area of the river. This leaves ample room for fish passage.
4. From the initiation of construction in January through June 15, a large percentage of the zone of potential acoustic impact will already be blocked off with fish exclusion devices (silt curtains, bubble curtains and fish weirs) designed to keep benthic fish out of the project zone. A fish startle system will also be available for deployment if necessary to keep fish out of the project zone. During that period of time, sturgeon will be physically shielded from a large part of the area that could cause them harm.
5. Bubble curtains can be employed as an effective means of minimizing the potential area of impact.

EPA will include the following conditions in its approval that will minimize potential impacts from blasting. First and foremost, EPA will require that blasting be limited to a charge of no greater than 50 pounds. This condition will be necessary to protect the hurricane barrier and also will serve to limit potential impacts on the Atlantic sturgeon.

Second, EPA will require the Commonwealth to have an adequate fish deterrent system (some combination of silt and bubble curtains and fish weirs) in place and properly functioning 24 hours prior to blasting. The fish deterrent system shall stay in place for the duration of all blasting activities. EPA will require monitoring for the presence of fish in the projected impact zone, immediately prior to the initiation of blasting. If fish are detected within the impact zone, the fish startle system will be deployed in an attempt to move fish out of the area. After a blasting event is completed, the Commonwealth will monitor the area within and near the impact zone looking for fish that may have been injured or killed. Dead or injured fish will be enumerated and sorted by species and the information will be reported to EPA.

## **Conclusion**

EPA has reviewed the request for additional dredging and has concluded that while it may affect the Atlantic sturgeon, it is unlikely to adversely affect the species either on its own or when combined with the other dredging impacts associated with this project, due in large part to the limited presence of the sturgeon in the area and the mitigative measures that will be employed.

With respect to blasting, EPA has reviewed the acoustic modeling report and discussed it with NMFS. Based on the available information, EPA concludes that, although the proposed blasting has the potential to affect the Atlantic sturgeon, the project is unlikely to adversely affect the species due in large part to the limited presence of the sturgeon in the area and the mitigative measures that will be employed.<sup>3</sup> If you have any questions on this letter, please contact me at (617) 918-1506.

Sincerely,

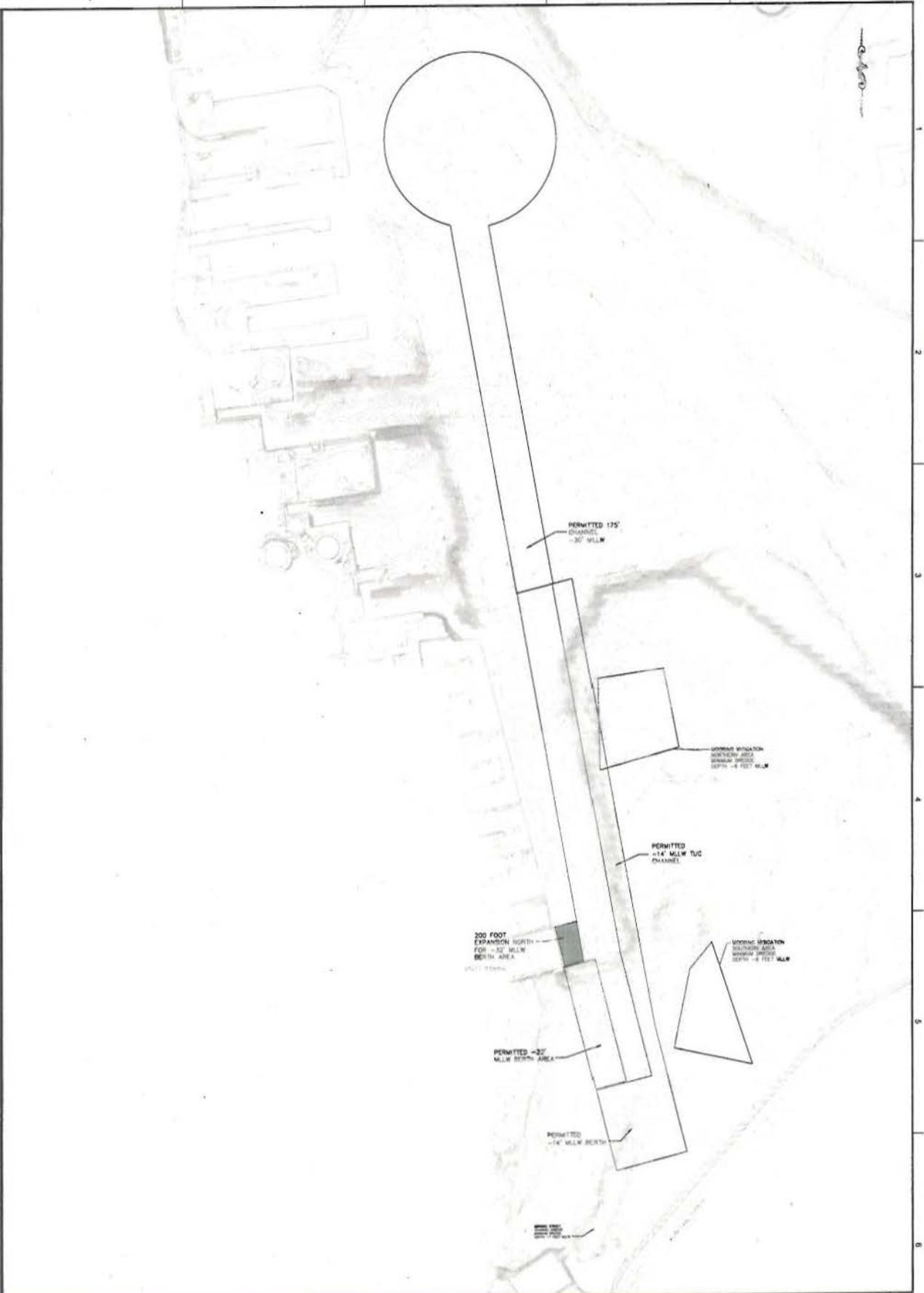
Phil Colarusso, Marine Biologist  
Coastal and Ocean Protection Section

cc: Gary Davis, Mass EOE  
Paul Diodati, Mass DMF  
Kathryn Ford, Mass DMF

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<sup>3</sup> EPA is also considering whether to include additional conditions on blasting pursuant to other applicable statutes, but we believe that the conditions identified above are sufficient to support our conclusion under the ESA that blasting is not likely to adversely affect the Atlantic sturgeon.





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