UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
FIVE POST OFFICE SQUARE – SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

September 6, 2013

Via electronic and first-class mail
John.Bullard@noaa.gov
John Bullard
Regional Administrator
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 Mr. Bullard:

On May 6, 2013, EPA and the National Marine Fisheries Service ("NMFS") completed consultation under the Endangered Species Act on changes to the New Bedford Harbor-South Terminal Project that the Commonwealth of Massachusetts had requested EPA to approve, including the use of blasting to remove rock at the project site. The information that EPA conveyed during that consultation supported the Agencies' conclusion that the South Terminal Project, including the use of blasting with a maximum charge weight of 50 lbs per delay, is not likely to adversely affect any species listed as threatened or endangered by NMFS.

The Commonwealth has recently determined, as a result of conducting additional sediment borings, that it will need to remove more rock via blasting at the site than it originally estimated, and that it will need to use a greater charge weight per delay. The initial estimate was 7500 cubic yards, and the revised estimate is now 23,200 cubic yards of rock. In addition, the thickness of the rock to be blasted has been revised as well. Previously, the thickest anticipated section of rock was believed to be 5 feet. Recent borings have shown areas of rock 15 feet thick. As a result, the Commonwealth believes a charge of 50 lbs per delay is insufficient to remove rock that is 15 feet thick and has requested an increase in the maximum charge weight to 150 lbs per delay.

EPA deems this request to be a significant project change that has the potential to impact marine resources of concern to NMFS. Thus, we are reinitiating consultation under the Endangered Species Act, the Magnuson-Stevens Act and the Fish and Wildlife

Coordination Act. This letter and the attached submissions from the Commonwealth serve to satisfy our obligations for consultation.

EPA requested the Commonwealth to have its consultant (JASCO Applied Sciences) do additional acoustic modeling to predict the potential impact from the larger charge weight. EPA received a revised acoustic modeling report from the Commonwealth on September 4, 2013. EPA has reviewed the results and conclusions of this new report, which suggest that the difference in the potential area of impact between 50 lb and 150 charges is relatively small. The projected difference in impact area is depicted in the attached Figures from the JASCO report.

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 through November.

In-Water Activities that Could Impact Atlantic Sturgeon and other Aquatic Species

Blasting

The major conclusions of the revised modeling report from JASCO are reiterated below:

1. The difference in potential impact area between a 50 lb charge and the 150 lb charge is small (See Attached Figures 18 and 19 from revised JASCO report).
2. Potential acoustic impacts would be primarily limited to behavioral (avoidance) effects.
3. Potential acoustic impacts seem to be limited to an area surrounding the project site that represent less than approximately 1/3 of the cross-sectional area of the river. This leaves ample room for fish passage.
4. Bubble curtains can be employed as an effective means of minimizing the potential area of impact.

To minimize potential impacts from blasting to the Atlantic sturgeon and to other aquatic species, EPA intends to include the following conditions in its approval:

1. All blasting must be conducted with clean parent material left in place.

2. The blasting program must minimize the total weight of explosive charges per shot and the number of shots for the project, and in no case shall the total weight of explosive charges exceed 150 pounds per delayed charge, with a minimum time delay of 25 ms between charges.

3. Blasting shall only be conducted in the three locations depicted on page 4 of the Commonwealth's May 20, 2013 letter to EPA. Blasting at the site closest to the bulkhead construction area may occur between September 15 and January 15. Blasting at the other two locations may occur between November 15 and January 15, and might also be able to occur earlier than November 15 if EPA specifically approves in writing an earlier start date for one or both sites following completion of the blasting at the bulkhead site and EPA's evaluation of the monitoring results (discussed further below).

4. For any blasting that occurs before November 15, a silt curtain must be erected north of the blast at an angle and length sufficient to deflect juvenile anadromous fish migrating from the Acushnet River to the ocean. The details of the location, length, and angle of the silt curtain must be identified in the final blasting plan.

5. There must be an adequate fish deterrent system in place and properly functioning at least 24 hours prior to blasting, and such system shall remain in place for the duration of all blasting activities.

6. Pre-blast monitoring for the presence of fish in the projected impact zone must be conducted immediately prior to the initiation of blasting. If fish are detected within the impact zone, the fish startle system must be deployed in an attempt to move fish out of the area.

7. After a blasting event is completed, the Commonwealth must monitor the area within and near the impact zone looking for fish that may have been injured or killed. Monitoring must commence immediately following the completion of each the blasting event and continue until no more bodies are recovered. Dead and injured fish must be enumerated and sorted by species and the information must be reported to EPA.

8. The Commonwealth must use angular stemming material of sufficient length in drill holes to reduce energy dispersal to the aquatic environment.

9. The Commonwealth must subdivide the charge, using detonating caps with delays or delay connectors with detonating cord, to reduce total pressure, and must avoid use of submerged detonation cord.

10. The Commonwealth must use decking when possible in lengthy drill holes to reduce total pressure.

11. The Commonwealth must used shaped charges to focus the blast energy when the submerged surface charges are necessary, reducing energy released to the aquatic environment during demolition.

Conclusion

EPA is still reviewing the revised JASCO report to ensure that it supports the conclusion that there would not be a significant increase in impacts to aquatic species using a maximum 150 lb charge weight compared to a 50 lb charge weight, but in light of the Commonwealth's desire to stay on schedule, we are sending you the Commonwealth's submissions and our tentative conclusion pending completion of that review. EPA has reached a tentative conclusion that, although the proposed modification to the NBH-South Terminal project has the potential to affect the Atlantic sturgeon, due in large part to the limited presence of the sturgeon in the area and the mitigative measures that will be employed, the project is unlikely to adversely affect the species. EPA has also reached the tentative conclusion that the change in potential impact will not result in any significant impacts to Essential Fish Habitat or resources protected under the Fish and Wildlife Coordination Act. We expect to complete our review of the JASCO report early next week and Michael Marsh will convey our final conclusion at that time in fulfillment of our consultation obligations under the Endangered Species Act, Magnuson-Stevens Act and the Fish and Wildlife Coordination Act. If you have any questions, please contact Michael Marsh next week at (617) 918-1556, or you may contact me the following week at (617) 918-1506.

Sincerely,

Phil Colarusso

Phil Colarusso, Marine Biologist
Coastal and Ocean Protection Section

Attachments
Figures 18 and 19 from 9/4/2013 JASCO report

cc via email:

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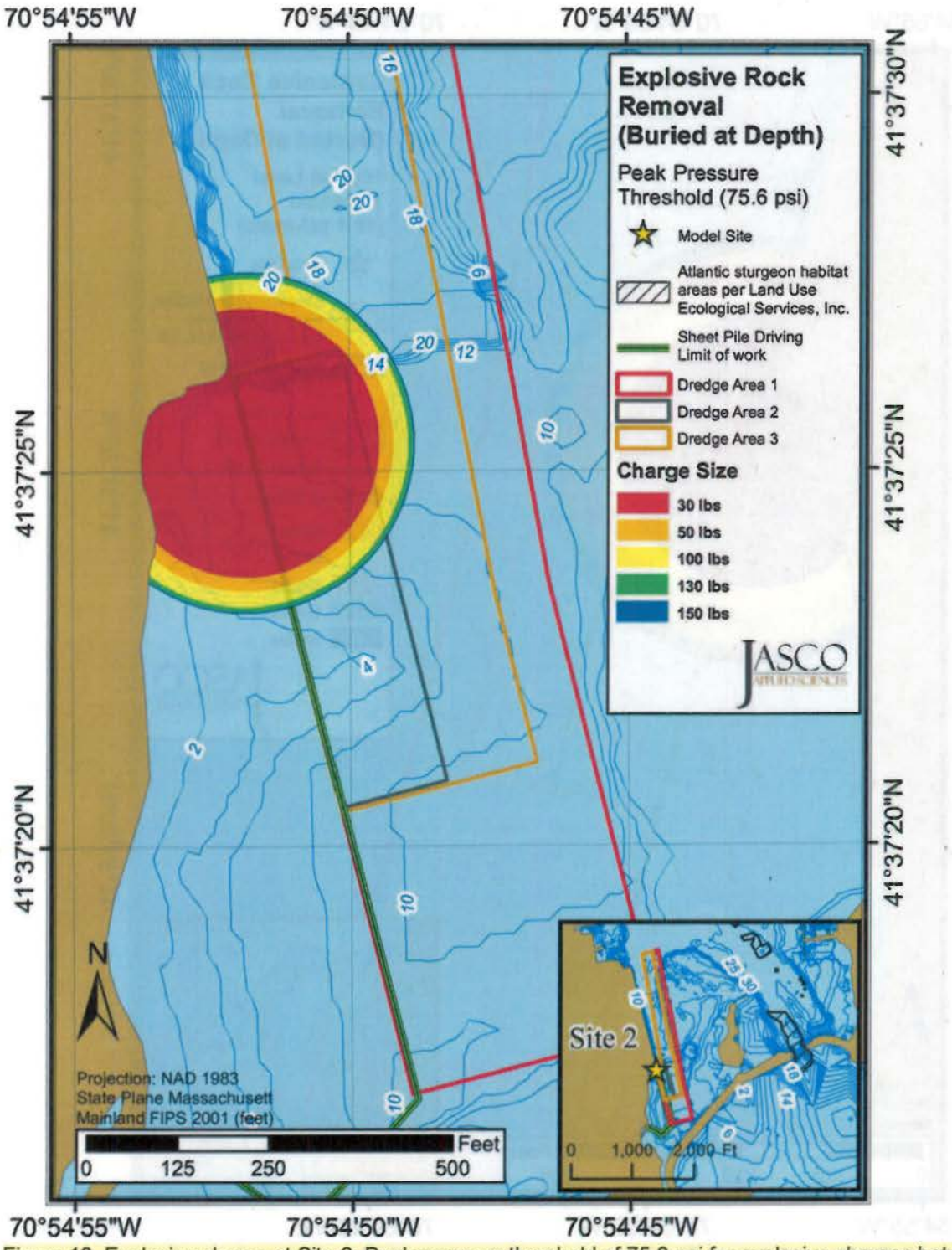

Figure 18. Explosive charge at Site 2: Peak pressure threshold of 75.6 psi for explosive charges between 30 and 150 lbs. Blue contours indicate water depth in feet.

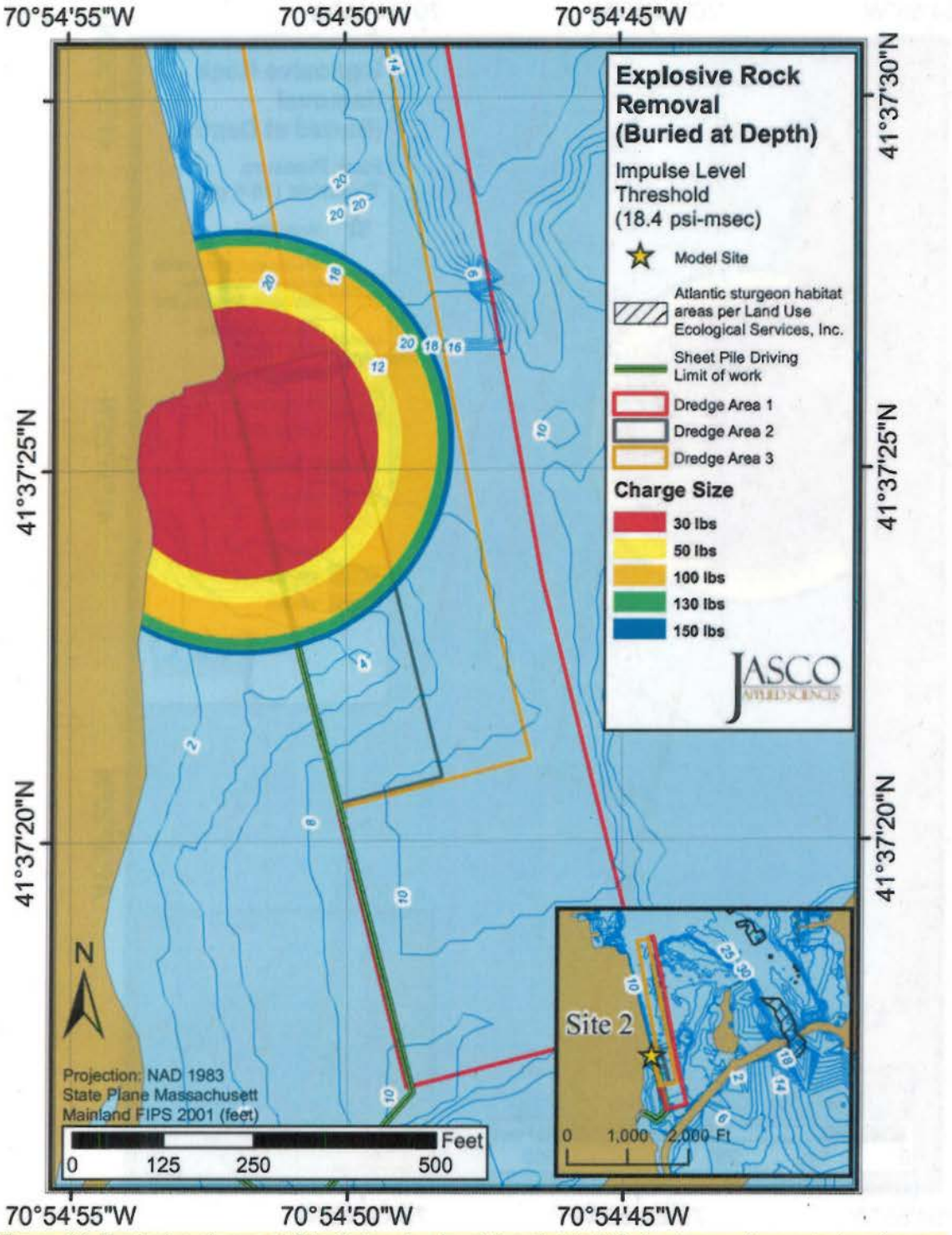

Figure 19. Explosive charge at Site 2: Impulse level threshold of 18.4 psi·msec for explosive charges between 30 and 150 lbs. Blue contours indicate water depth in feet.