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NMFS Comment Letter
Susan Tuxbury
to:
Group South-Terminal-Draft-Comments
08/21/2012 05:07 PM
Cc:
Lou Chiarella, Christopher Boelke, Christine Vaccaro
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From: Susan Tuxbury <susan.tuxbury@noaa.gov>

To: Group South-Terminal-Draft-Comments@EPA

Cc: Lou Chiarella <Lou.Chiarella@noaa.gov>, Christopher Boelke <Christopher.Boelke@noaa.gov>, Christine Vaccaro <christine.vaccaro@noaa.gov>

1 Attachment

South Terminal_New Bedford_NMFS Comment letter.pdf

Dear Elaine Stanley,

Attached are NMFS comments on the Draft Determination for South Terminal in New Bedford, MA. Please contact me with any questions. Thank you.

Sue Tuxbury
Fishery Biologist
Habitat Conservation Division
NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930
978-281-9176 (phone)
978-281-9301 (fax)
susan.tuxbury@noaa.gov

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

AUG 21 2012

Elaine Stanley, EPA New England
5 Post Office Square, Suite 100
Mail Code 0SRR07-4
Boston, MA 02190-3912

Re: Draft Determination for the Proposed South Terminal Project, New Bedford, Massachusetts

Dear Ms. Stanley:

We have reviewed the Draft Determination and Essential Fish Habitat (EFH) Assessment for the proposed South Terminal Project (Project), which describes an application by the Commonwealth of Massachusetts (MA) to construct a confined disposal facility (CDF) as part of the State Enhanced Remedy (SER) within the South Terminal area of New Bedford Harbor in New Bedford, MA. The purpose of the project is to construct a 28.25 acre marine terminal, comprised of a 6.85 acre shoreline CDF adjacent to the existing upland, capable of supporting offshore renewable energy development and other future uses. The secondary project purpose is to provide a site for the disposal of dredged material associated with the SER during construction of the facility and support staging of additional dredged material for beneficial reuse during facility operation. Specifically, project components include (1) installation of a 1,200 linear foot bulkhead in the harbor with placement of approximately 142,000 cubic yards of clean dredge material behind the bulkhead, referred to as the 6.85 acre CDF, (2) dredging to provide navigational access, to realign the Gifford Street Boat Ramp Channel, and create new mooring areas (3) dredging to create a confined aquatic disposal (CAD) cell, (4) disposal of contaminated material into new and existing CAD cells, and disposal of clean dredge material for CAD cell capping , and (5) compensatory mitigation to address impacts to wetlands, intertidal habitat, sub-tidal habitat, and shellfish resources.

This project will provide necessary infrastructure to support the development of offshore renewable energy, and in addition, it will result in activities that remove additional contaminated sediments within the harbor. Although the overall goals of this project provide a benefit to the area as a whole, we believe there are measures that can be incorporated into the proposed plan that would avoid and minimize impacts to fishery habitat.

As you are aware, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act require Federal agencies to consult with one another on projects such as this. Insofar as a project involves EFH, as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH Assessments and generally outlines each agency's obligations in this consultation procedure. In addition, we are providing technical assistance and information relative to the Section 7 Consultation process under the Endangered Species Act.

General Comments

New Bedford Harbor is located on the northern shore of Buzzards Bay and supports a number of marine resources including federally managed fish, shellfish, and protected species. The Acushnet River flows into the northern part of the harbor providing significant freshwater flow supporting a migratory corridor for anadromous fish.

The proposed project would result in permanent loss of 6.85 acres of intertidal and shallow sub-tidal habitats from construction of the CDF. Approximately 20.21 acres of winter flounder spawning and nursery habitat would also be permanently lost due to dredging the harbor to depths unsuitable to support these life history stages. Furthermore, the project would result in the loss of almost 10 million shellfish, eliminating an important forage base for winter flounder and scup, two of the EFH species in the project area (Pereira *et al.* 1999, Steimle *et al.* 2000). Shellfish also provide an important ecological role through water column filtration, sediment stabilization as well as supplying habitat for estuarine species (Zimmerman *et al.* 1989, Coen *et al.* 1999, Newell 2004). The impacts of this project are particularly significant for winter flounder and shellfish due to the permanent loss of intertidal and shallow sub-tidal habitat.

Additional Work Proposed

At the request of the Commonwealth, you have included additional work as part of the Draft Determination evaluation, though the funding for this work is not yet secured. The proposed additional work includes (1) a width increase of 50 feet in the approach channel (from 175 feet to 225 feet); (2) up to 300 feet increase in length of the deep draft dredging area; and (3) expansion of a CAD cell to accommodate the additional volume of dredged contaminated sediment. This expansion of the project would increase the impacts to winter flounder and shellfish habitat. According to the Commonwealth's submittal to your agency, dated June 18, 2012, it is unclear whether this additional work is required to meet the purpose and need of the project. With regard to the channel width expansion, the Commonwealth's June submittal states that the "Commonwealth anticipates that the 175 foot wide channel is sufficient for the design vessel." The 175 foot channel appears to be sufficient to meet the existing purpose and need of the project as described in the Draft Determination. Increasing permanent impacts to shallow water habitat by 2.72 acres for unknown future needs is not supported in the Draft Determination. Furthermore, the expansion of the deep draft berthing area would result in an additional 0.62 to 1.28 acres of habitat impacts. The need for this expansion of deep water dredging is unclear in both your Draft Determination and the Commonwealth's June 18, 2012, submittal. Neither document explains why this expansion is necessary to meet the purpose and need of the proposed project. Though the mitigation areas have been modified to account for this additional work, the impacts of the project have not been minimized to the maximum extent practicable.

Project minimization

There are inconsistencies in the Draft Determination document regarding the minimum total area necessary for the marine terminal. Under Section 4.3 of Appendix E (page 15), you state that the Commonwealth identified a good need for a total wharf and upland area of at least 28 acres. This is consistent with the SER submitted by the Commonwealth on January 18, 2012. However, under alternatives evaluated in Section 4.4 (pages 16, 18, and19) of the Draft

Determination, you state that based on the Commonwealth's submissions, "the minimum acreage necessary to accommodate a marine terminal to support off-shore wind energy development is at least 20 acres, and possibly as large as 28 acres." The total minimum area required to meet the project purpose and need should be clarified in the document.

The Commonwealth is proposing to incorporate a pile supported apron adjacent to the wharf to minimize project impacts by reducing the area of solid fill within shallow sub-tidal habitat. However, this area will still be impacted by deep water dredging, the installation of a concrete blanket of rip rap material, and shading from the deck above. Although this design is proposed to minimize impacts at the project site, more information regarding the bottom rip rap fill should be provided. It is not clear how much area will be filled with rip rap or why this extent of fill would be necessary. It was indicated in the Commonwealth's June 18, 2012, submittal that the rip rap will protect the bottom from propeller wash; however the bottom will already be dredged to significantly greater depths. Also, it is not clear if this rip rap will only be necessary at the pile supported area or if rip rap will also be used along the 1,200 linear feet of bulkhead. If so, this fill should also be included in project impacts. The construction plans for this pile supported area should be clarified.

Impacts from Dredging

The proposed dredging for the project has the potential to impact approximately 53.7 acres of substrate. Dredging impacts can be particularly significant for winter flounder, a species that is suffering historic low levels in the Southern New England area. Winter flounder have demersal eggs and require a shallow depth range of 0.3 to 4.5 meters for spawning, making them particularly vulnerable to shallow water impacts. Converting shallow sub-tidal habitat to depths unsuitable for spawning would result in permanent loss of winter flounder habitat.

Dredging activity results in elevated sediment levels in the water column, which have been shown to restrict or inhibit habitat use and functions, including reproduction. High turbidity can impact fish species through greater expenditure of energy, gill tissue damage and mortality (Johnson *et al.* 2008, Newcombe and Jensen 1996). Particularly, egg and larval life stages may be more sensitive to turbidity impacts (Newcombe and Jensen 1996). Sub-lethal effects to estuarine fishes can include decreased feeding, impacts from lowered oxygen levels, as well as impacts on gills and associated respiratory impacts. Elevated levels of suspended sediments can also interfere with shellfish spawning success, feeding, and growth (Wilber and Clark 2001). Restricting the time of year dredging takes place may minimize some of these impacts, particularly for early life stages.

Impacts from Blasting

Geotechnical data collected at the terminal site indicates there may be a need to blast a fractured rock within the dredge footprint. If the fractured rock cannot be removed with the dredge, then blasting may be necessary. Explosive blasts with a high-level of acoustic exposure have been shown to cause physical damage and/or mortality in fishes (Hastings and Popper 2005). Developing larvae may also have different levels of sensitivity to noise at varying stages of development with potential for impacting larval growth in some fishes (Banner and Hyatt 1973).

Attenuation devices such as bubble curtains or cofferdams may reduce the noise level exposure to surrounding fish species and thus reduce impacts and mortality (Keevin *et al.* 1997). Limiting the time of year when blasting occurs can also help avoid impacts to sensitive life stages and migrating fish.

Mitigation

Mitigation is proposed for the unavoidable impacts to resources including winter flounder habitat, intertidal and sub-tidal habitat, shellfish, and salt marsh. Specifically, the creation of 22.73 acres of winter flounder spawning habitat is proposed for an area just south of the hurricane barrier. Clean sand will cap contaminated sediments in the outer harbor, elevating the bottom to a suitable depth for winter flounder spawning. Since creation of winter flounder habitat is experimental, it is critical this mitigation is closely monitored to ensure this area is functioning as winter flounder spawning habitat. We concur with your conditions for 5 years of monitoring of the bathymetry and the habitat functions of this mitigation site. Additionally, a contingency plan should be incorporated into this mitigation plan which specifies corrective actions that could take place should the ecological goals of the mitigation sites not be achieved.

Similar to the winter flounder mitigation site, 4.47 acres of intertidal habitat and 14.91 acres of sub-tidal habitat will be created south of the hurricane barrier with the use of clean sand from navigational dredging. Bathymetric monitoring is included as a special condition in the Draft Determination. However, it is not clear if monitoring will also be conducted to determine whether or not the ecological goals of this mitigation site are achieved.

To mitigate for the significant loss of shellfish at the project site, you are requiring the Commonwealth to reseed 24,542,803 quahog clams to offset the expected loss of just under 10 million shellfish. This number was selected based on the assumption of a 40% survival rate; however, the document does not indicate whether or not monitoring of the reseeded sites would be required. Though quahogs were found to be the dominate shellfish species at the project site, other species including soft shell clams, bay scallops, blue mussels, and eastern oysters were also found at the project site. It is not clear why only quahog seeding will occur and not the other shellfish species to be impacted by the project.

In Appendix E of the Draft Determination, you list 12 components that must be included in a final mitigation plan. We concur with the development of mitigation plans that include all of these components to ensure the functions and values of these resources are compensated.

Essential Fish Habitat Conservation Recommendations

As noted in the EFH Assessment included in Appendix H of the Draft Determination, New Bedford Harbor has EFH designated for more than twenty species. Of these species including winter flounder (all life stages), windowpane flounder (all life stages), scup (all life stages), and black sea bass (larvae, juveniles and adults) are more likely to be present and impacted by this project. The proposed South Terminal project would adversely affect EFH by filling and dredging intertidal and shallow sub-tidal habitats that are used for spawning, forage and shelter for a variety of fish species. We recommend pursuant to Section 305(b)(4)(A) of the MSA that

you adopt the following EFH Conservation Recommendations:

1. In order to minimize impacts of the projects on shallow sub-tidal habitat to the maximum extent practicable, while meeting the purpose and need of the project, the proposed additional work including increasing the width of the approach channel by 50 feet, increasing the length of the deep draft dredging area by up to 300 feet, and expanding CAD cell 3 to accommodate the extra material, should be eliminated.

2. In order to reduce impacts of fill on sub-tidal habitat, the concrete blanket proposed for the pile supported apron adjacent to the wharf should be reduced to the maximum extent possible.

3. In order to avoid adverse effects to winter flounder spawning and early life stages in New Bedford Harbor, in-water silt producing activity, including blasting, should be avoided between January 15 and May 31 of any year.

4. In order to compensate for the loss of shellfish resources at the project area, a shellfish mitigation plan should include compensation of all shellfish species found at the project site. This would include expanding the proposed reseeding of quahog clams to include other species identified in the shellfish survey.

5. Prior to final approval, all mitigation plans and monitoring reports should be provided to the resource agencies for review and comment.

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH Conservation Recommendations, including a description of measures adopted by EPA for avoiding, mitigating, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that you must explain its reasons for not following the recommendations. Included in such reasoning would be the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k).

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

Fish and Wildlife Coordination Act Recommendations

New Bedford Harbor and the Acushnet River function as important spawning, nursery and feeding grounds for many aquatic organisms, including anadromous species such as alewives (*Alosa pseudoharengus)*, blueback herring (*Alosa aestivalis*), and striped bass (*Morone saxatilis*). In order to avoid adverse impacts to migrating anadromous fish, blasting activity should not occur between April 1 and June 30 of any year.

Endangered Species Act Coordination

As you may know, any discretionary federal action, such as the approval or funding of a project by a Federal agency, that may affect a listed species must undergo consultation pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended. If the proposed project has the potential to affect listed species and it is being approved, permitted or funded by a Federal agency, the lead Federal agency, or their designated non-Federal representative, is responsible for determining whether the proposed action is likely to affect listed species. For the South Terminal Project, if you determine that the proposed action may affect, but will not adversely affect listed species (informal consultation), you must demonstrate that all effects to listed species will be insignificant (on the scale where take will never occur) or discountable (extremely unlikely to occur). If you determine that the project may affect and is likely to adversely affect listed species, then formal consultation with us is required, resulting in a Biological Opinion that will also include an Incidental Take Statement (ITS). You would submit your determination along with justification for your determination and a request for concurrence, to the attention of the Section 7 Coordinator, NMFS Northeast Regional Office, Protected Resources Division. After reviewing this information, NMFS would then be able to conduct a consultation under section 7 of the ESA.

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) are known to use the nearby Taunton River as part of their estuarine/riverine habitat, and could be present anywhere within coastal waters as part of their marine habitat. Atlantic sturgeon in the area of New Bedford Harbor could belong to any of the five distinct population segments (DPS) (Gulf of Maine – threatened; New York Bight, Chesapeake Bay, Carolina, and South Atlantic – endangered). No juvenile or early life stages of Atlantic sturgeon are expected to be near the project area—only sub-adult and adult life stages could pass nearby or forage within or adjacent to the harbor. Since there is reasonable potential that Atlantic sturgeon may be in the vicinity of New Bedford Harbor during certain times of the year, we recommend initiating consultation with us. The following activities associated with the project may affect Atlantic sturgeon: dredging, pile driving, and blasting.

Dredging

Dredging operations have the potential to interact with listed species as well as reduce the forage base of these species via the alteration of existing biotic assemblages. Hydraulic dredges (hopper dredges) have the ability to entrain sub-adult and adult Atlantic sturgeon. While mechanical dredges may also entrain Atlantic sturgeon, it is rare, and the use of an environmental bucket has been shown to reduce this potential even further. We recommend an environmental bucket be used for all dredging on this project. Additionally, time of year restrictions may also reduce the likelihood of any interaction between Atlantic sturgeon and dredging operations. The time of year restrictions for dredging recommended for winter flounder would also be protective of Atlantic sturgeon but would need to be extended through the summer months to provide protection for when Atlantic sturgeon would be expected in the area. Although Atlantic sturgeon do not spawn in New Bedford Harbor or the Acushnet River, spawning adults may pass through during early spring on the way to the Hudson River or the Kennebec River in Maine, where they do make spawning runs. All possible mitigation methods (*i.e.*, time of year restrictions, dredge

types, etc.) that further reduce potential impacts to Atlantic sturgeon migrating or foraging near the action area are recommended to be undertaken.

Pile Driving
The following decibel (dB) levels are used as the "best available" information regarding noise impacts to Atlantic sturgeon and other fish species: 206 dB cSEL peak (may cause serious injury/mortality), 187 db cSEL (may cause injury/harm--no mortality), and 150-155 db cSEL (causes avoidance behavior)*(i.e.,* injury or "harm" in terms of the ESA).

For pile driving activities, we offer the following guidance to meet these sound criteria:

1) Piles installed in-the-dry during low water or in-water between Nov. 15 - March 15; or

2) Piles must be drilled and pinned to ledge; or

3) Vibratory hammers used to install any size and quantity of wood, concrete or steel piles; or

4) Impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any size, concrete piles ≤18-inches diameter, steel piles <12-inches diameter if the hammer is ≤3000 lbs and a wood cushion is used between the hammer and steel pile.

Any in-water work should take the following specification into consideration to be determined as "not likely to adversely affect" Atlantic sturgeon:

1) In-water noise levels shall not exceed >187dB SEL re 1ìPa or 206dB peak re 1ìPa at a distance >10m from the pile being installed; and

2) In-water noise levels >155dB peak re 1μPa shall not exceed 12 consecutive hours on any given day and a 12 hour recovery period (i.e., in-water noise below 155dB peak re 1μPa) must be provided between work days.

Blasting
Blasting sound decibel levels should be assessed if time of year restrictions are not imposed. Similar to pile driving, Atlantic sturgeon would be unlikely to be in the vicinity of any blasting activity between November and March. However, during other times of the year, Atlantic sturgeon adults and sub-adults may be foraging or passing through or nearby New Bedford Harbor. If blasting is being performed during this time frame (March to November), a zone of passage, free of decibel levels higher than those discussed previously, should be available to avoid potential impacts to Atlantic sturgeon.

Conclusions

In summary, we recommend that the Commonwealth minimize impacts to EFH by eliminating the proposed additional work that expands the width of the channel and berthing area and reduce the amount of rip rap associated with the pile supported apron. We recommend that no dredging or blasting occur between January 15 and May 31 any year in order to minimize adverse impacts to winter flounder. In order to protect migrating anadromous fish, no blasting should occur between April 1 and June 30. In addition, we request the opportunity to review and comment on resource mitigation plans prior to final approval. Finally, we have provided technical assistance relative to the Endangered Species Act Consultation process. We look forward to your response to our EFH Conservation Recommendations as well as our other recommendations on this project. Should you have any questions about our comments, please contact Sue Tuxbury at susan.tuxbury@noaa.gov or 978-281-9176. For questions regarding the Endangered Species Act please contact Christine Vaccaro at christine.vaccaro@noaa.gov or 978-281-9167.

Sincerely,

John K. Bullard
Regional Administrator

References

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