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FW: DRAFT EEA Ltr to EPA on Terminal
Davis, Gary (DCR)
to:
Carl Dierker
09/28/2012 09:29 AM
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From: "Davis, Gary (DCR)" <gary.davis@state.ma.us>

To: Carl Dierker/R1/USEPA/US@EPA

History: This message has been forwarded.

2 Attachments



image001.png EEA Letter to EPA on Terminal.docx

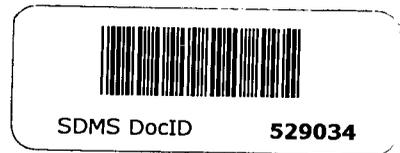
Hi Carl. Here you go. NMFS is still reviewing but agreed that we should share with you.

Sent from my Verizon Wireless Droid

-----Original message-----

From: "White, Bill (EEA)" <Bill.White@MassMail.State.MA.US>
To: "Davis, Gary (ENV)" <Gary.Davis@MassMail.State.MA.US>, Eric Macaux <EMacaux@MassCEC.com>, Jay Borkland <jborkland@apexc.com>, Chet Myers <cmyers@apexc.com>, "Hines, Eric" <ehines@lemessurier.com>, "Diodati, Paul (FWE)" <Paul.Diodati@MassMail.State.MA.US>, "abartonmcdevitt@masscec.com" <abartonmcdevitt@masscec.com>
Sent: Thu, Sep 27, 2012 20:16:59 GMT+00:00
Subject: FW: DRAFT EEA Ltr to EPA on Terminal

Team,



Here is the latest on where we stand. Many thanks for all your work. See you tomorrow at 1:30 PM at EEA Legal.

Bill

Bill White
 Assistant Secretary for Federal Affairs
 MA Executive Office of Energy & Environmental Affairs
 (617) 626-1008

From: White, Bill (EEA)
Sent: Thursday, September 27, 2012 4:09 PM
To: John Bullard
Cc: 'Allison McHale'
Subject: DRAFT EEA Ltr to EPA on Terminal

John,

As we discussed last week and Allison requested below, attached is a proposed letter from the Commonwealth to EPA aimed at addressing the issues NMFS raised in its August comment letter on the New Bedford Marine Commerce Terminal. As you can see from our proposed draft, we did an aggressive and thorough response in the hope of reaching concurrence tomorrow and moving this historic project forward.

We would welcome your feedback. Let me know if you would like to discuss before tomorrow's meeting at 1:30 PM. I'd also like to share a draft with Carl Dierker at EPA prior to tomorrow's meeting, but would like your input before sending.

Many thanks for your leadership,

Bill

Bill White
 Assistant Secretary for Federal Affairs
 MA Executive Office of Energy & Environmental Affairs
 (617) 626-1008

From: Allison McHale [<mailto:allison.mchale@noaa.gov>]
Sent: Tuesday, September 25, 2012 2:41 PM
To: White, Bill (EEA)
Cc: John Bullard
Subject: South Terminal follow-up

Hi Bill,

I connected with Kim Damon-Randall, and she confirmed that we need further details on the project, particularly the pile driving activities (e.g., number of piles to be driven, size of piles, etc.). If EPA puts that information into a letter and provides a basis for the conclusion that the project is not likely to adversely affect ESA listed species (e.g., sturgeon), we will then write a letter concurring with that determination. She also stated that we can turn that letter around very quickly once we have the information. So the letter should come from EPA as the Federal action agency, not from the State.

Hope this helps,

Allison

Allison McHale

Special Assistant to the Regional Administrator

Communications Team Leader

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NOAA FISHERIES

DRAFT

September 27, 2012

Curt Spaulding/ Carl Dierker
Regional Administrator/ Regional Counsel
U.S. Environmental Protection Agency New England Region
5 Post Office Square, Suite 100
Boston, MA 02190

Re: Response to National Oceanic and Atmospheric Administration – National Marine Fisheries Service, Northeast Region Comments on the Draft Determination for the Proposed South Terminal Project, New Bedford, Massachusetts

Dear Curt/Carl,

Following an August 21, 2012 comment letter to EPA from the National Marine Fisheries Service (NMFS) on the Draft Determination for South Terminal in New Bedford, MA, the Commonwealth convened our team, including our fisheries experts at the Massachusetts Division of Marine Fisheries and project engineers, to meet with NOAA's Regional Administrator John Bullard and NMFS staff to provide a full briefing of the project and detail the project's significant environmental benefits to New Bedford Harbor. At the meeting, we explained the extensive mitigation that the Commonwealth has committed to fund related to winter flounder habitat, salt marsh restoration, and shellfish reseeding. Additionally, we had the opportunity to clarify and address NMFS concerns regarding impact to fisheries. This letter serves to summarize the Commonwealth's conversation with NMFS and detail the collective approach that has been devised that allows the project to be completed in a manner that protects the potentially impacted resources while maintaining the critical project elements to meet the intended project purpose.

At the meetings, which took place at the Massachusetts Executive Office of Energy and Environmental Affairs on September 21 and 28, 2012, we discussed three main points relative to impacts on fishery resources regarding the South Terminal project: mitigating potential impacts to the endangered Atlantic sturgeon, designing engineering controls to protect winter flounder and anadromous fish species, and rationalizing the Commonwealth's proposed shellfish mitigation plan.

Atlantic Sturgeon

Atlantic sturgeon (*Acipenser oxyrinchus*) is a migratory anadromous species, migrating from the open ocean to coastal rivers to spawn in the spring. All coastal waters along the East Coast, including Buzzards Bay and New Bedford Harbor, are *potential* habitat for Atlantic sturgeon. However, according to NMFS, Atlantic sturgeon are only currently present in approximately 32 rivers from from St. Croix, ME to the Saint Johns River, FL. In Massachusetts, Atlantic sturgeon have been observed along the coast, but have not been observed spawning in the Taunton River (the closest historical spawning river to New Bedford Harbor) for over 15 years

(NMFS letter to EPA dated 6-19-12). Additionally, DMF has never spotted the species at or near New Bedford Harbor. In fact, according to NOAA's Distribution and Abundance of Fishes and Invertebrates in Mid-Atlantic estuaries, Atlantic sturgeon have not been observed in Buzzards Bay, and furthermore are listed as rare in Buzzard's Bay under the basis of "reasonable inference" (Stone et al. 1994).

DMF assesses the potential for spawning and forage habitat in all waterbodies for species of concern with respect to impacts from construction projects, including Atlantic sturgeon (Evans et al. 2011). However, New Bedford Harbor has several important characteristics that make it an unlikely environment for Atlantic sturgeon including: a severely restricted entrance (the hurricane barrier) that is constantly monitored, a large amount of vessel traffic, a large seafaring population surrounding the harbor, an extensive Superfund dredging project, frequent navigational dredging conducted under EPA authority, and an anadromous fish restoration project in the Achushnet River. And despite the vulnerability of Atlantic sturgeon to vessel strikes and the relative ease with which these large fish are seen compared to other fish, there have been no reported incidents of vessel strikes to Atlantic sturgeon near or within the New Bedford Harbor.

Furthermore, no Atlantic sturgeon were caught in monthly surveys conducted in New Bedford Harbor for Dredge Material Management Planning (DMMP, Normandeau 1999). Therefore, DMF concluded that Atlantic sturgeon were not present in New Bedford Harbor. Accordingly, we do not make recommendations pertaining to Atlantic sturgeon during our environmental review of the large number of federal and state projects that occur in the harbor. However, we recognize the importance of the Endangered Species Act (ESA) listing and offer the following information and mitigation strategies based on guidance provided by NMFS.

As background, the project calls for the installation of a 1,000 lineal foot coffer-dam style bulkhead with an overhanging pile-supported concrete deck along the quay-side. In order to do this, the Commonwealth will be installing flat sheet piles (to create the coffer-dam structure), z-shaped sheet piles (for the southern return wall) and pipe piles (to support the overhanging concrete deck). The sheet pile driving and pipe pile driving information can be divided into three categories including cofferdam, return wall area, and concrete decking.

For the cofferdam, the Commonwealth will be driving approximately 3,034 thin flat steel sheets that are approximately 19" long and approximately 0.5" thick. These will be installed to form the cellular structure of the cofferdams.

For the return wall area, the Commonwealth will be driving approximately 175 z-shaped steel sheet piles that are approximately 30" long and approximately 3/8" thick. These sheets will be installed along the southern end of the facility in association with the return wall.

For support of the concrete decking, the Commonwealth will be installing three different types of pipe pilings. The first set will include 65 pipe piles that are 24" diameter and have 5/8" wall thickness. These will be installed after the cofferdams are installed and will be installed outside of the cofferdams. However, these pilings will be installed by drilling a "rock socket" in place, placing the piling in the hole, and then grouting it in place. This first set of pilings will not

require driving and will be installed in accordance with the “drill and pin to ledge” criteria that NMFS has already stated would be acceptable for installation at all times of the year.

The second set will include 22 pipe piles that are 30” diameter and have 3/4” wall thickness. These will be installed after the cofferdams are installed and will be installed outside of the cofferdams. These pilings will also be installed by drilling a “rock socket” in place, placing the piling in the hole, and then grouting it in place. Similar to the first set, the second set of pilings will not require driving and will be installed in accordance with the “drill and pin to ledge” criteria that NMFS has already stated would be acceptable for installation at all times of the year.

The third set will include 94 pipe piles that are 30” diameter and have 3/4” wall thickness. These will be installed after the cofferdams are installed and filled, and be installed inside of the footprint of the completed cofferdams. These pilings will be driven. However, because the cofferdams will be completed, and the pilings will be driven into earth (i.e. – dry land), this work will not contribute to noise impacts to fisheries resources.

The project also requires the removal of a relatively small quantity of rock from some of the deeper dredge areas near the quay-side portion of the future vessel berth area. NMFS has expressed concern that acoustic and vibrational energy from the driving of the piles and the bedrock removal methods may adversely impact ESA listed Atlantic sturgeon within their normal migratory ranges. NMFS offered the following guidance to promote mitigation of potential impacts to that species: install piles between November 15th and March 15th; or institute engineering controls to ameliorate vibrational energy in the water column if pile driving must occur outside the recommended time frame. Additionally, NMFS provided additional specifications regarding noise impacts to Sturgeon if vibration-causing activities: in-water noise levels should not exceed [187 dB re 1 $\mu\text{Pa}^2 \cdot \text{s}$ (cSEL) for 12 consecutive hours on any given day, or 206 dB re 1 μPa (peak SPL) at a distance of >10 meters from the work area, and should not exceed 150 dB re 1 $\mu\text{Pa}^2 \cdot \text{s}$ (SEL).

The construction methods anticipated for the various activities noted above include:

- Sheet pile driving activities utilizing a vibratory and/or impact hammer pile driving system (pipe piles are not currently anticipated to contribute to noise impacts, as discussed above);
- Drilling activities associated with “rock-socketing” of pipe piles drilled into rock;
- Mechanical fracturing of shallow rock patches within the dredge footprint where rock may be encountered (either utilizing a bucket dredge, a “hoe-ram”, or hydraulic dredge capable of removing rock); and
- Drilling of small holes into small patches of shallow rock outcroppings in the dredge areas and the injection of expanding grout into those holes for the fracturing of rock so that it can be dredged by traditional means.

Because the critical path nature of the project timeline anticipates the potential for work during the March to November timeframe, the Commonwealth proposes to implement the following engineering controls to mitigate the potential for the noted construction activities impacting the resource:

- “Rock-socketing”, or drilling the pipe piles into bedrock;
- Limiting the installation methods to the use of vibratory hammers for the installation of piles to the extent practicable;
- If impact-hammers are necessary, attempt to, if practicable, limit the use to one hammer and no more than 50 piles installed per day.

Additionally, prior to the start of construction, the Commonwealth will conduct acoustical modeling of the potential noise-generating construction activities noted above to demonstrate that in-water noise levels will not exceed thresholds for physiological impacts or mortality referenced in the 2008 Agreement In Principal for Interim Criteria for Injury to Fish from Pile Driving Activities (FHWG, 2008). Should modeling indicate that acoustical noise levels will exceed the levels indicated above, then additional engineering controls in the form of noise attenuating bubble curtains around the work area would be applied for work that would occur outside the November to March timeframe.

On the potential impacts to Atlantic sturgeon from blasting, the Commonwealth restates that blasting would only be utilized as a measure of last resort if other methods of rock removal are ineffective at removing material within the project channel and berthing areas to the required depths. Based upon drilling information from test borings installed within the project site, the Commonwealth anticipates that most of the rock that requires removal from the dredge footprint of the project can be removed using conventional dredging methods or through non-blasting rock removal techniques. However, the possibility does exist that some small volume of rock may need to be removed using blasting techniques. The blasting technique the Commonwealth anticipates utilizing involves the drilling of a series of small blast holes into the rock surface to the depth of desired removal at regular intervals (approximately every 8-15 feet). A small amount of explosive material would then be installed into the blast holes, tamped and covered, and detonated to fracture the rock so that it could be removed using conventional dredging methods.

NMFS recommends that blasting activities occur between November and January 15 to avoid impacts to the various noted species, or to implement engineering controls to mitigate the potential for the noted blasting activities impacting the resource. Because the critical path for this project timeline precludes the Commonwealth from ruling out blasting activities (should they be needed), the Commonwealth proposes to implement the following engineering controls to mitigate the potential for the noted blasting activities impacting the Atlantic Sturgeon resource:

- Prior to any potential blasting, the Commonwealth will conduct acoustical modeling to demonstrate that in-water noise levels will not exceed thresholds for physiological impacts or mortality referenced in the 2008 Agreement In Principal for Interim Criteria for Injury to Fish from Pile Driving Activities (FHWG, 2008).
- Should modeling indicate that acoustical noise levels will exceed the levels indicated above, then additional engineering controls in the form of noise attenuating bubble

curtains around the blast work area would be applied to work that would occur outside the November to March timeframe.

Shellfish

NMFS has correctly noted that multiple shellfish species in New Bedford Harbor are impacted by the proposed project but that the mitigation plan focuses on quahogs only. There are a couple of reasons for this approach. First, the project area was sampled for shellfish and the dominant species captured was quahog (*Mercenaria mercenaria*). Second, a goal of the mitigation proposed was to be as on-site as possible, so all mitigation activity was targeted in the City of New Bedford. Typically once a transplant is conducted, there is a period of time during which the restoration site is closed to shellfishing to protect the newly planted shellfish. The city already has large, permanent shellfish closures due to poor water quality and relatively little water space, so the mitigation strategy was designed to minimize additional closures while maximizing the number of shellfish planted.

Third, mono-specific quahog transplanting was the most efficient approach since quahogs can tolerate a wide range of depth, sediment type, and water quality conditions. Fourth, another goal of the proposed mitigation is to implement the plan in a timely fashion to limit time lag (the time period between the original loss of ecosystem function and the restoration of ecosystem function). Because of the resilience of quahogs, the transplant success rate is more predictable than with other species.

Finally, the infrastructure to culture and grow-out seed at the scale of this project (millions of seed each year) is not commonplace. With substantial capital investment, the Commonwealth has repurposed its former lobster hatchery to accommodate the anticipated culture of quahogs. The existing infrastructure will be fully utilized focusing on a single species. Ultimately, the goal is to have as successful a shellfish restoration as possible in as short a time as possible. By keeping the project focused on quahogs, the risks of failure and time lag are minimized.

Winter Flounder

Winter flounder spawn in shallow estuarine waters in the late winter and early spring. The eggs are demersal and adhesive, and have well-recognized vulnerability to sedimentation (Berry et al. 2003). The Commonwealth has had significant experience with the use of engineering controls in New Bedford Harbor through the work that has previously been conducted as part of the Superfund State Enhanced Remedy (SER) for navigational dredging. As part of the SER dredging program, the Commonwealth and the USEPA established a set of SER "Performance Standards" (detailed in the Commonwealth's restated application to USEPA) that guide all work under the SER process in the Harbor. The SER Performance Standards prescribe a set of activities that must be implemented when necessary beneficial cleanup dredging occurs during a time of year restriction period. These standards include the actions recommended by NMFS in its August 21, 2012 letter to EPA:

- The use of an environmental bucket for dredging of fine grained materials;

- The use of silt curtains (or equivalent) combined with turbidity monitoring with action levels.

The Commonwealth is aware that NMFS has raised concerns that the mitigation efforts that would be undertaken through the SER process for this project would not fully take into account impacts to demersal eggs from Winter Flounder that might stray into pending dredge work zones during the spawning season (January 15 through May 31) and lay eggs in the portions of the work zone that are at the spawning depth range (generally shallower than 16-feet).

The Commonwealth notes that for projects of relatively short incursion into the “no-dredge window,” the likelihood that this scenario would produce significant impact to the species in the area is low. However, in recognition of the special circumstances associated with this project, the Commonwealth is proposing to adopt a series of enhanced engineering controls that consist of:

- Cordoning off the entire depth-relevant time-critical construction areas noted above during the time of year that Winter Flounder could potentially be spawning (January 15 through May 31) to make those areas unavailable to spawning fish through the spawning period. The areas would be cordoned off by installing a subsurface curtain wall consisting of a combination of silt curtains (in areas that will not significantly impede vessel traffic) and bubble curtains (in areas where navigational servitude will need to be maintained).
- Use of a fish startle system within the time-critical work area prior to the January 15 cordoning-off date to remove existing fish from the zone prior to installing the curtain wall.
- Conducting periodic weekly camera and/or diving inspections of the silt curtain/bubble curtain wall to ensure its integrity, and completing necessary repairs in a timely fashion for damage or entanglement of the curtain wall that would impeded its effectiveness.
- Documentation of curtain wall monitoring activities in a weekly report to the EPA, the SER committee, and NMFS.

The above noted enhanced engineering controls would be utilized concurrently with the typical SER Performance Standard actions of water quality monitoring (both inside and outside the curtained area), and use of the environmental bucket for the dredging of fine grained sediments that can be dredged with the environmental bucket – to ensure that silt suspension from the dredging process is minimized to the extent practicable. The Commonwealth believes that the use of this combined set of engineering controls would effectively mitigate the impacts from dredging during sensitive time periods for Winter Flounder. The enhanced engineering controls would also have the added benefit of mitigating impacts of dredging on anadromous fish species that might be present in the Harbor, as the controls would deter fish from entering the work area and reduce the potential for siltation in the water column.

Conclusion

The Commonwealth believes that the measures proposed will allow the project to advance along a timeline that meets the project intended purpose and need, while protecting and minimizing

any temporary impacts the construction might have on the fisheries resources found in New Bedford Harbor. The Commonwealth believes that this remediation, coupled with the engineering controls when activities must occur during time of year periods, provide better long term benefits to the fisheries resources present in New Bedford Harbor.

The Commonwealth's Natural Resource agencies, including the Division of Marine Fisheries, shares a common mission and goal as both EPA and NMFS, and we are committed to a constructive collaboration with you to protect the natural resources of New Bedford Harbor as we construct this historic project. We request for EPA to concur with the information and analysis contained in this letter that was developed in partnership with the National Marine Fisheries Service.

As always, the Commonwealth is available to discuss any aspect of the project approach presented herein, and we look forward to working with you and your staff to advance the Final Decision for the project in the near future.

Sincerely,

Richard K. Sullivan Jr.
Secretary

Paul Diodati
Director, MA Division of Marine Fisheries

CC: NOAA's Northeast Regional Administrator John Bullard

References

Berry, W., N. Rubinstein, B. Melzian, and B. Hill. 2003. The Biological Effects of Suspended and Bedded Sediment (SABS) in Aquatic Systems: A Review. EPA Internal Report. <http://www.epa.gov/waterscience/criteria/sediment/pdf/appendix1.pdf>.

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Normandeau Associates, Inc. 1999. Dredged Material Management Plan Fisheries Resources Survey for New Bedford Final Report. Prepared for Massachusetts Office of Coastal Zone Management. December 1999.

FHWG (Fisheries Habitat Working Group). 2008. Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities. Memorandum of Agreement between NOAA Fisheries Northwest and Southwest Regions; USFWS Regions 1 and 8; California, Washington, and Oregon Departments of Transportation; California Department of Fish and Game; and Federal Highways Administration. June 12, 2008.

Pereira, J.J., R. Goldberg, J.J. Ziskowski, P.L. Berrien, W.W. Morse, and D.L. Johnson. 1999. Winter Flounder, *Pseudopleuronectes americanus*, Life History and Habitat Characteristics.

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Stone, S.L. et al. 1994. Distribution and abundance of fishes and invertebrates in Mid-Atlantic estuaries. Estuarine Living Marine Resources Program Report Number 12. NOAA/NOS Strategic Environmental Assessments Division, Silver Spring, MD.

<http://archive.org/details/distributionabun00unit> See pages 9 and 30.