



REPLY TO  
ATTENTION OF

## DEPARTMENT OF THE ARMY

PHILADELPHIA DISTRICT, CORPS OF ENGINEERS  
WANAMAKER BUILDING, 100 PENN SQUARE EAST  
PHILADELPHIA, PENNSYLVANIA 19107-3390

Environmental Resources Branch

**JUN 19 2009**

Mr. Peter D. Colosi, Jr.  
Assistant Regional Administrator for Habitat Conservation  
National Marine Fisheries Service  
Northeast Region  
55 Great Republic Drive  
Gloucester, Massachusetts 01930-2276

Dear Mr. Colosi:

This is in response to your April 16, 2009 letter which provided Essential Fish Habitat Conservation and Fish and Wildlife Coordination Act recommendations on the Essential Fish Habitat Assessment (EFHA) prepared by our office for the Delaware River Main Stem and Channel Deepening Project, Delaware, New Jersey and Pennsylvania (the Project). Our responses to your recommendations are attached.

We would also like to clarify some points raised in your letter. The placement plan for the Project only includes the use of the existing Federally owned upland dredged material placement sites along the Delaware River. These sites are currently used for maintenance of the 40-foot project. Based upon a detailed analysis, these sites have been determined to have sufficient capacity to accommodate the initial construction and 50 years of project maintenance quantities for both the existing 40-foot project and the increment associated with the 45-foot deepening Project. No new placement sites will be required during this 50-year time frame. The detailed capacity analysis was performed, taking into account available site acreages, existing disposal area elevations, dredging bulk and shrinkage factors, material types, dike raising, and upland disposal area best management practices. The summary capacity analysis can be found in Appendix A of the April 2009 Environmental Assessment prepared by our office. The Buoy 10 site will not be used for initial construction, but will continue to be used for maintenance as is the practice for the 40-foot Delaware River project. This site is approved for the placement of sand dredged from the lower Delaware Bay. Finally, you are correct in pointing out that the estimated maintenance dredging quantity for the 45-foot Project is approximately 20 percent higher, not the 10 percent cited, than the current maintenance dredging quantity for the 40-foot project.

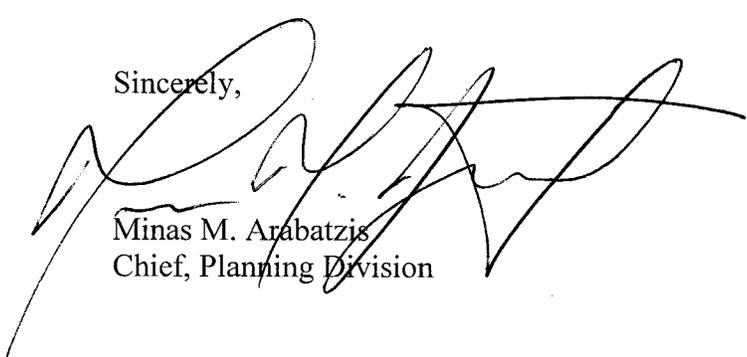
With regard to selection of Kelly Island over Egg Island Point, there has been a significant decrease in the estimated amount of sand available in the Delaware Bay portion of the project. As such, all three beneficial use projects (Kelly Island, Egg Island Point and Broadkill Beach) can not be constructed. Of the three projects, the Egg Island Point project has the highest degree of uncertainty associated with construction and maintenance of the planned structures. The

planned project was highly reliant on geotubes, which would be placed in open water and exposed to constant direct wave attack. Since the inception of the design in the early 1990's, empirical results of open water geotube structures have been met with varied degrees of success. The site is adjacent to several large oyster lease areas and the risk of premature failure of the tube structure was considered in the decision to defer the project over the more-proven and minimal-risk projects at Broadkill Beach and Kelly Island. Both of those projects are designed using conventional and proven beach fills and shoreline stabilization techniques.

The Broadkill Beach beneficial use project will not be used for placement of sand dredged from the maintenance of the deepening Project. Broadkill Beach was the subject of the Delaware Bay Coastline – Delaware and New Jersey, Broadkill Beach, Delaware Interim Feasibility Study. A final Feasibility Report and Environmental Impact Statement were prepared in September 1996, and the project was authorized for construction by the Water Resources Development Act of 1999. Since dredging for the deepening Project in the vicinity of Broadkill Beach will yield high quality sand, there is opportunity to synchronize the deepening Project with the Broadkill Beach project and beneficially use the sand as a source for constructing the authorized Broadkill Beach project. Sand required for future nourishment of the Broadkill Beach project will be obtained from the sand borrow area approved for the project.

We appreciate your attention to this matter. If you have any questions or need additional information, please contact Jerry Pasquale of my staff at (215) 656-6560 or at [Jerry.J.Pasquale@usace.army.mil](mailto:Jerry.J.Pasquale@usace.army.mil).

Sincerely,



Minas M. Arabatzis  
Chief, Planning Division

Attachment  
Copy Furnished:  
Karen Greene  
Assistant Regional Administrator for Habitat Conservation  
National Marine Fisheries Service  
Northeast Region  
55 Great Republic Drive  
Gloucester, Massachusetts 01930-2276

**USACE Responses to NMFS  
Recommendations Provided April 16, 2009**

**EFH Conservation Recommendations**

1. The ACOE should form a regional dredging team and develop a regional dredged material management plan to evaluate the long-term dredging needs and disposal options for the dredging projects within the Delaware River and Estuary.

Response: Existing Federally owned dredged material disposal sites along the Delaware River, which are currently used for maintenance of the 40-foot project have sufficient capacity to accommodate initial construction and 50 years of project maintenance for the Delaware River Main Stem and Channel Deepening Project. As such, a Dredged Material Management Plan for this project is not needed. However, the Corps and the U.S. Environmental Protection Agency Region III are in the early stages of developing a regional dredging team for the Delaware River and Estuary.

2. Should Buoy 10 be used for any dredged material disposal, an EFH consultation must be completed.

Response: While the Buoy 10 site will not be used for construction of the deepening project, it is currently used for maintenance of the 40-foot project and will be used for maintenance of the 45-foot project. An EFH Assessment for Buoy 10 maintenance operations will be prepared and submitted to NMFS for review.

3. Any wetlands created at Kelly Island should be open to unrestricted tidal flow in perpetuity. Provide copies of the construction plan, planting plan, and a long-term monitoring and maintenance plan to NMFS. If an impoundment is constructed, provide mitigation for the loss of shallow water habitat.

Response: The objective of the Kelly Island wetland restoration project is to restore intertidal wetlands. The site will initially be constructed as an impoundment and remain as such until the sediments consolidate and vegetation becomes established. At that time, the site will be opened to tidal inundation. Construction, planting, and monitoring plans will be coordinated with NMFS.

4. Coordinate with NMFS, the Delaware Fish and Wildlife Management Cooperative, and Delaware State fisheries biologists on the potential need and appropriateness of mitigation or relocation of the *Sabellaria* reefs or the creation of suitable substrate for recolonization.

Response: Surveys for *Sabellaria* were conducted in 2001 and 2004, and findings and measures to minimize potential impacts are summarized on pages 125-127 of the EA. However, Kelly Island and Broadkill Beach will be reevaluated prior to construction to determine potential impacts to *Sabellaria* and the most appropriate course of action to offset any losses. This is stated on page 127 of the April 2009 Environmental Assessment. The evaluation will be

coordinated with NMFS, the Delaware Fish and Wildlife Management Cooperative, and the Delaware Department of Natural Resources and Environmental Control.

5. Develop a full and complete assessment of the cumulative impacts of the deepening project, including impacts on EFH and federally-managed species and their prey.

Response: The need for an assessment of cumulative impacts was considered in the April 2009 Environmental Assessment (see page 147). It was concluded, as summarized below that there is no need for such an assessment.

The authorized project is formulated with the conclusion that the mix and volume of cargoes coming to the benefiting terminals will be equivalent for the current 40-foot or proposed 45-foot channel depths. There is no induced tonnage as a result of the deepening project in the Corps' economic analysis. The project's navigation benefits from the channel deepening are based upon transportation cost savings from more efficiently managing vessel operating costs. The future volume of cargo passing through the Delaware River port system is determined by macroeconomic factors that are not affected in any measureable way by the channel depth. The purpose of the deepening project is to make it possible to handle that macroeconomically-determined flow of cargo in a more efficient way. This efficiency takes the form of more-heavily-loaded vessels. With the deeper channel, fewer total vessel calls will be required because it will be possible to handle more cargo per ship.

Speculative proposals, such as the Philadelphia Regional Port Authority's (PRPA) "Southport" plan at the Philadelphia Navy Yard, are not considered port expansions that are reasonably foreseeable (the criteria that is applied under NEPA) to occur as a result of the 45-foot channel deepening. For example, as stated in the 2005 PRPA news release referenced in your April 16, 2009 letter, for "Southport" to be constructed, "millions of yards of the materials collected during the channel deepening would directly aid the Southport effort by filling in areas between Piers 122 and 124, as well as a parcel at the east end of the Philadelphia Naval Shipyard. These are areas that need to be filled in to create the necessary acreage for this state of the art project". This speculative use of Delaware River dredged material and other port-related proposals listed in NMFS' letter are not, nor ever been, part of the reasonably foreseeable planned construction of the Delaware River 45-foot project and should not be considered as part of a realistic cumulative impact assessment. For an action to be reasonably foreseeable there would need to be more than a news release or an artist's rendition on a brochure. Items such as letters of intent, signed agreements, permits, committed funding sources, and designs beyond the conceptual, etc., would be necessary to support the assertion that a plan should be considered a reasonably foreseeable proposal.

### **Fish and Wildlife Coordination Act Recommendations**

1. For protection of the Atlantic sturgeon, restrict hopper dredging below RM 32 from June 1 to November 30. If hopper dredging does occur during this time period, an observer should be placed on board the dredge to monitor for entrainment of Atlantic sturgeon.

Response: Because of a competing restriction with over-wintering blue crab it is not possible to observe the June 1 to November 30 restriction. Hopper dredging will be required during the month of June for construction of the Broadkill Beach beneficial use project and during the months of June, July and August for construction of the Kelly Island beneficial use project. For the protection of sea turtles, a trained observer(s) is required on board any hopper dredge working below the Delaware Memorial Bridge during June through November. These observers will also be responsible for monitoring hopper dredge activity and potential impacts to Atlantic sturgeon.

2. Undertake a comprehensive SAV survey of the Delaware River deepening project area to identify the location and extent of SAV that may be affected directly or indirectly by the deepening and widening of the federal navigation channel.

Response: Currently, no impact to SAV's is anticipated as a result of deepening the Delaware River federal channel and widening the bends from 40- to 45 feet. The concern is to the shallow areas outside the federal channel. Toward that end the issue of SAV's was raised for the first time as part of the process to get the current Water Quality Certification (August 2007) for continued maintenance of the existing Delaware River Philadelphia to the Sea navigation channel. The certificate requires a wild celery survey to ensure that pipelines coming onshore would not impact existing plants. The entire Pedricktown North shoreline was surveyed in 2008, but no submerged aquatic vegetation was found. These surveys will continue in the future as sites are prepared for use to collect more information on the potential impact of dredging and dredged material disposal on submerged aquatic vegetation.

3. Updated oyster, blue crab, and horseshoe crab surveys should be undertaken. The ACOE should coordinate with the states of New Jersey and Delaware, the Haskins Shellfish Research Lab, NMFS and others, as appropriate, to evaluate the existing data and update the surveys as needed.

Response: While the District recognizes that the in-situ water quality monitoring conducted in 2000/2001 is now eight years old, the District believes the data collected still characterizes the current conditions adequately. However, as part of the commitment to monitor the situation, the District plans on collecting additional information at a series of 8 oyster beds in the lower Delaware Bay. This work will be coordinated with the states of New Jersey and Delaware, the Haskin Shellfish Research Laboratory, and NMFS. There is no need to conduct additional overwintering blue crab surveys as dredging in Delaware Bay below River Mile 32 is scheduled to occur outside of the overwintering season. Spawning horseshoe crab surveys will be conducted after the Kelly Island and Broadkill Beach restorations are complete to document habitat improvements.