

**Delaware River Main Channel Deepening Project
USACE Responses to Questions from the DNREC Hearing Officer
Provided July 27, 2010**

In a letter dated July 27, 2010, the U.S. Army Corps of Engineers, Philadelphia District (Corps), received a list of questions from the Hearing Officer appointed by the Delaware Department of Natural Resources and Environmental Control (DNREC). The Corps' responses are provided below. Additional information provided as attachments are denoted by superscripts and listed at the end of the document.

QUESTIONS AND RESPONSES

1. Does the Corps intend to reply to the remaining questions posed by DNREC at your joint meeting on June 14 and in their June 15, 2010 letter? If so, when do you anticipate those responses will be sent (the Corps June 24, 2010 letter committed the response would be received prior to the Public Hearings)?

Response: *Responses were provided to DNREC in a letter dated August 18, 2010 from LTC Secrist to Secretary O'Mara.*

2. Please provide a chart or graphic depiction of all pertinent dredge windows by species. Please indicate whether the project proposes to comply with each window. If a modified window is proposed, specify reduction in window felt necessary, justification for the request, and document agency concurrence or attempts to gain concurrence for each proposed modification.

Response: *The Delaware River Basin Fish and Wildlife Management Cooperative (Cooperative) Recommended Dredging Restrictions for Protection of Fishery Resources in the Delaware River and Bay are included in Appendix C of the 2009 EA. The Appendix includes charts depicting restrictions for: Overboard Disposal/Sand Placement; Blasting; Bucket Dredging; Hydraulic Dredging; and Hopper Dredging.*

As noted in the 2009 EA (Section 2.7), all "windows" will be met in Reaches AA, A, B, C, D, and E above River Mile 32. Dredging below River Mile 32 and shoreline work at Kelly Island and Broadkill Beach cannot meet the recommended windows because the only period of time that meets all recommended restrictions for these areas is the first half of the month of April. The impact of not adhering to the recommended restrictions in these areas is discussed in detail in Section 4 of the 2009 EA.

The Cooperative has not recommended any hopper dredging restrictions for protection of the sandbar shark but has recommended restricting hopper dredging from 1 June through 31 March for protection of Atlantic sturgeon and overwintering blue crab. Restrictions are also recommended for work along the shoreline from 15 April to 15 September from the mouth of the

bay to River Mile 12 for protection of the sandbar shark. This restricted shoreline includes the Broadkill Beach portion of the project. As stated in the 2009 EA, in order to best meet these competing restrictions, the Broadkill Beach portion of the project was scheduled to take place between 1 April and 30 June. To protect sandbar shark during this period, the plan was to float the dredge pipe to avoid disruption of sandbar shark movements and to stockpile sand above mean high water from 15 April to 15 September. After 15 September, sand was to be graded below mean high water to widen the beach. However, during the May 13, 2010 project coordination meeting between the Corps, DNREC, and Dr. Dewayne Fox, an Atlantic sturgeon researcher (Associate Professor, Agriculture and Natural Resources Department, Delaware State University) it was decided that a more acceptable time of year for construction of the Broadkill Beach project is from 15 September to 15 December. Dredging and shoreline work during this time would avoid any impacts to the sandbar shark, the sand tiger shark, the horseshoe crab, and local residents and vacationers using the beach during the summer months. According to Dr. Fox, dredging at this time would not impact Atlantic sturgeon, as his data show they are not using this area at this time of year. The Corps will coordinate this change with NMFS and also work with DNREC to develop a dredging plan that minimizes impacts to overwintering blue crab during the month of December (i.e. schedule dredging in December in areas least utilized by blue crab). The attached updated project schedule incorporates this change.¹

The Kelly Island construction schedule remains the same as presented in the Corps' April 2009 Environmental Assessment. Hopper dredging would be required in Delaware Bay between 1 April and 31 August. The Cooperative recommends that hopper dredging be restricted in Delaware Bay from 1 June to 30 November for the protection of Atlantic sturgeon. Construction work along the Kelly Island shoreline would occur between 1 April and 30 September. The Cooperative also recommends that shoreline work in this portion of the bay be restricted from 15 April to 15 September for the protection of horseshoe crab. As stated in LTC Secrist's August 18, 2010 letter, which responded to comments provided by Secretary O'Mara in a letter dated June 15, 2010, the Corps is willing to discuss revisions or modifications of the construction schedule for Kelly Island with regard to environmental windows.

3. Please provide copies of any comments received in response to the April, 2009 Environmental Assessment (the Record does contain USF&W and NMFS comments).

Response: The Corps received three letters in response to the issuance of the April 2009 EA: two letters from NJDEP, dated June 23, 2009² and August 25, 2009,³ and one from EPA Region III, dated July 1, 2009.⁴ As requested, these letters are attached. The Corps has not received any comments from either the USFWS or NMFS in response to the issuance of the EA. Both agencies did provide comments in response to the Corps' December 2008 public notice and NMFS provided comments during consultation on the Essential Fish Habitat and Biological Assessment.

4. Please provide a copy of the complete project sponsor contractual agreement and any supporting documents.

Response: Attached are the Project Partnership Agreement, executed June 23, 2008,⁵ and Amendment No. 1 to the Project Partnership Agreement, executed February 23, 2010.⁶

5. Please provide reasoning why the endangered piping plover has not been included in any project documentation.

Response: Please refer to the response letter from USFWS regarding endangered species consultation for the deepening project, dated January 18, 1996.⁷ Piping plovers are not known to nest at the Broadkill Beach and Kelly Island locations nor along the remainder of the Delaware Bay shoreline. According to information available on DNREC's web site, in the last seven years piping plovers have only nested within Cape Henlopen State Park.

6. Please provide documentation from Bombay Hook National Wildlife Refuge that the Corps conceptual proposal to restore Kelly Island has their concurrence and permission.

Response: During the development of the Kelly Island design, technical meetings were held with Bombay Hook NWR to get their input. As stated in our August 18, 2010 letter, the Kelly Island project is not a conceptual proposal. The Corps' 1997 SEIS documents the extensive environmental and engineering studies that were conducted during the development of the design (refer to Sections 3.3 and 9.0). Furthermore, the project was designed in coordination with Federal and State regulatory agencies including DNREC.

The final design as presented in the 1997 SEIS was coordinated with the Refuge and they had no objections in constructing this project. It was agreed during these meetings that, prior to construction, the Corps would coordinate with the USFWS and other appropriate state and Federal resource agencies to finalize the details of managing the Kelly Island site and obtain a Special Use Permit from the Refuge.

7. The Record to date reveals significant concern regarding the conceptual Kelly Island beneficial use component of the project. Other than Egg Island, the Corps submittal of May 21 indicates no other potential beneficial sites have been examined, and states there are administrative impediments in considering other sites. Please elaborate and explain why other potential mitigation or beneficial use sites cannot be considered at this time.

Response: We do not agree that the record to date disputes the need to restore the eroded Kelly Island wetlands. In the past, while the Kelly Island feature was under development, there were technical questions and follow-up responses, but the need to restore Kelly Island was historically viewed by DNREC as an important and positive aspect of the overall deepening project. During the development of the design of Kelly Island DNREC participated actively and worked with the Corps to insure that the project would provide both the erosion protection and wetland creation. The Kelly Island Project design reflects changes that DNREC requested during the development of the project design. In fact at no time other than very recently, while the deepening project was

under construction, was the need to restore the wetlands at Kelly Island questioned. In addition, the plan is not conceptual, but has long been developed to the proper design level as discussed in our letter of August 18, 2010.

Recognizing the importance to beneficially use suitable dredged material whenever possible, the Corps embarked on extensive coordination with DNREC many years ago. Numerous sites and alternate methods were examined, and as a result of that investigation and coordination, and at the request of DNREC, the Kelly Island wetland restoration feature of the project was identified; subsequently, a restoration plan was formulated, and then designed. The Corps expended significant amounts of funds, work effort and time, to investigate, collect data, and to utilize the best design approach for this wetland restoration, while coordinating with the appropriate affected entities, including the Corps' subject matter experts at the Waterway Experiment Station (WES, now known as the US Army Engineer Research and Development Center, ERDC). The results were documented in the 1997 SEIS, and acknowledged in the 2003 Hearing Officer's Report to DNREC. It should be noted that the historical erosion rate at Kelly Island is the most severe rate on the entire Delaware Bay coast. The shoreline has continued to erode up to 500 feet since 1997 and over a half mile since 1936, resulting in the loss of over 175 acres of marsh. This further demonstrates the need to stabilize the shoreline at this location. As noted in previous responses, the Corps is willing to discuss design refinements with DNREC.

Comments questioning the need to construct Kelly Island were only received at this late stage while the project was under construction, as part of DNREC's review of the information submitted by the Corps in March 2010. In response, the Corps has provided additional information on the characteristics of the sand to be used in construction, and predictive shoreline erosion and longshore transport modeling, which demonstrates the validity of the previous Corps' conclusions. Furthermore, there has been no substantive documentation by DNREC, at least to the level of identification, formulation, and design developed by the Corps for the Kelly Island Project, which would indicate a superior alternative for beneficial use of dredged material from the perspective of environmental benefits and construction cost. However, should DNREC conduct and complete, in a timely manner so as to not delay construction, the appropriate administrative requirements, engineering analyses, and documentation (including the provision of all necessary permits, required NEPA documentation, and an agreement to pay for any costs over and above the estimated cost of Kelly Island) that identifies and demonstrates a different and at least as beneficial alternative, the Corps and the non-Federal sponsor (PRPA) would consider pursuing such a plan.

8. Please provide the planned procedure, by species, should the authorized "take" of any protected species be met or exceeded during dredging or blasting.

Response: *The National Marine Fisheries Services' July 17, 2009 Biological Opinion for the project provides Reasonable and Prudent Measures (RPMs) and Terms and Conditions (T&C) for meeting the RPMs. The Terms and Conditions are non-discretionary. RPM #8 states "All interactions with listed species during dredging operations must be properly documented and promptly reported to NMFS." T&C 11 through 20 provide the requirements for complying with RPM #8. The Biological Opinion also states the following:*

"As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of taking specified in the incidental take statement is exceeded; (2) new information reveals effects of the action that may not have been previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to listed species; or (4) a new species is listed or critical habitat designated that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, Section 7 consultation must be reinitiated immediately."

9. Does the Corps have any plans to address the continuing wake-generated erosion on the south side of Pea Patch Island? In your opinion, will larger vessels accelerate the rate of erosion?

Response: *In a series of four contracts dating from August 1999 to March 2005, the Corps constructed 2,700 linear feet of riprap seawall and revetment along the south side of Pea Patch Island. In addition to the riprap sections, 1,260 linear feet of historically correct stone seawall was reconstructed. (Figure 1 is an aerial photo of Pea Patch Island showing the constructed seawall and revetment.) The project has stabilized the shoreline. The Corps has previously identified the erosion at Pea Patch Island to be a consequence of the vessels transiting the shipping channel. Since the deepening project is primarily based upon the more efficient use of the existing fleet of vessels that call on the ports along the River, it is not anticipated that the deepening will cause any further erosion and the protection in place is sufficient.*



Figure 1 – Pea Patch Island

10. There was considerable testimony at the Public Hearings regarding benefit of the project to the Port of Wilmington. Yet, several Record documents reveal the Corps does not attribute any benefit to Delaware industry or ports. Will the Corps include examination of Wilmington port benefit and associated costs in the updated economic reassessment being prepared for GAO? If not, do you have any comment on this apparent discrepancy?

Response: *Magellan LP (formerly Delaware Terminals) is expected to benefit from the Delaware Deepening, and will be included in the Updated Assessment of Relevant Market and Industry Trends being prepared in response to the March 2010 GAO report recommendations. The Port of Wilmington's facilities are primarily located along the Christina River, which is a separate Federally-authorized and maintained project, constrained to a maximum depth of 38 feet. The Christina River is not part of the authorized deepening of the Delaware River and therefore it will not be included in the Updated Assessment of Relevant Market and Industry Trends. The Port of Wilmington does have an automobile RoRo berthing facility along the*

Delaware River; however, vessels engaged in this type of commerce do not require further deepening.

Of course, there is the possibility that in the future, as part of a Port of Wilmington improvement or expansion effort, for a berth to be constructed adjacent to the Delaware River, which could service commodities with vessels requiring drafts of 40 feet or greater. However, such an occurrence is uncertain, and therefore cannot be part of the basis for the economic justification of the project.

List of Attachments

¹ Updated Project Schedule, June 2010

² Letter from NJDEP, dated June 23, 2009

³ Letter from NJDEP, dated August 25, 2009

⁴ Letter from EPA Region III, dated July 1, 2009

⁵ Project Partnership Agreement, executed June 23, 2008

⁶ Amendment No. 1 to the Project Partnership Agreement, executed February 23, 2010

⁷ Letter from USFWS, dated January 18, 1996