



DEPARTMENT OF THE ARMY  
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS  
FORT HAMILTON MILITARY COMMUNITY  
GENERAL LEE AVENUE, BLDG 301  
BROOKLYN, NY 11252-6700

REPLY TO  
ATTENTION OF:

CENAD-RBT

DEC 14 2012

MEMORANDUM FOR Commander, Philadelphia District, ATTN: CENAP-EC (Mr. Tranchik),  
Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107-3390

SUBJECT: Review Plan Approval for Implementation Documents – Delaware River Main  
Channel Deepening Project; PA, NJ and DE

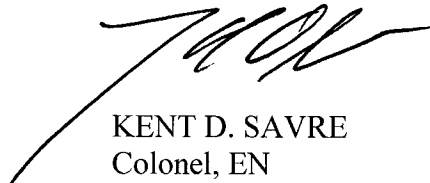
1. References:
  - a. E-Mail, CENAP-DP-CW (Mr. Evans), 10 Dec 12, subject: NAP Review Plans
  - b. EC 1165-2-209 Change 1, Water Resources Policies and Authorities – Civil Works Review Policy, 31 Jan 12
2. The enclosed Review Plan for the Implementation Documents – Delaware River Main Channel Deepening Project has been prepared in accordance with Reference 1.b. The project includes: deepening the existing Delaware River Federal Navigation Channel from 40 to 45 feet Mean Lower Low Water (MLLW) from Philadelphia, PA and Camden, NJ, to the mouth of the Delaware Bay; appropriate bend widening; partial deepening of the Marcus Hook anchorage; and relocation and addition of aids to navigation. The project is currently in the initial construction phase, and four construction contracts have been awarded to date. Of the four, two are complete, one is currently underway, and the last is scheduled to begin in January 2013.
3. NAD Business Technical Division is the Review Management Organization (RMO) for the Agency Technical Review (ATR). Initial analysis indicates that Independent External Peer Review is not required since the project does not involve potential hazards which pose a significant threat to human life. However, a more detailed risk assessment needs to be completed to verify the determination.
4. The enclosed Review Plan for Implementation Documents – Delaware River Main Channel Deepening Project is approved. The Review Plan is subject to change as circumstances require, consistent with study development under the Project Management Business Process. Subsequent revisions to this Review Plan or its execution will require new written approval from this office.
5. In accordance with Reference 1.b, Appendix B, Paragraph 5, this approved Review Plan shall be posted on your district website for public review and comment. The plan will also be posted on NAD's website for review and comment.

CENAD-RBT

SUBJECT: Review Plan Approval for Implementation Documents – Delaware River Main Channel Deepening Project; PA, NJ and DE

6. The Point of Contact in Business Technical Division for this action is Alan Huntley, 347-370-4664 or Alan.Huntley@usace.army.mil.

Encl  
as



KENT D. SAVRE  
Colonel, EN  
Commanding

CF (w/ encl):  
CEMP-NAD (C. Shuman)  
CENAP-DP-CW (S. Evans)  
CENAD-PD-X (L. Cocchieri)

# REVIEW PLAN

## DELAWARE RIVER MAIN CHANNEL DEEPENING PROJECT PENNSYLVANIA, NEW JERSEY, AND DELAWARE IMPLEMENTATION DOCUMENTS

U.S. Army Corps of Engineers  
Philadelphia District



**10 December 2012**

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS, PHILADELPHIA DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.



US Army Corps  
of Engineers <sup>®</sup>

**REVIEW PLAN**

**DELAWARE RIVER MAIN CHANNEL DEEPENING PROJECT  
PENNSYLVANIA, NEW JERSEY, AND DELAWARE  
IMPLEMENTATION DOCUMENTS**

**TABLE OF CONTENTS**

**1. PURPOSE AND REQUIREMENTS..... 1**

**2. PROJECT INFORMATION AND BACKGROUND..... 1**

**3. DISTRICT QUALITY CONTROL ..... 4**

**4. AGENCY TECHNICAL REVIEW ..... 4**

**5. INDEPENDENT EXTERNAL PEER REVIEW..... 5**

**6. MODEL CERTIFICATION AND APPROVAL..... 5**

**7. BUDGET AND SCHEDULE..... 5**

**8. POINT OF CONTACT ..... 6**

**c. Project Description.** The project includes: deepening the existing Delaware River Federal Navigation Channel from 40 to 45 feet Mean Lower Low Water (MLLW) from Philadelphia, Pennsylvania, and Camden, New Jersey, to the mouth of the Delaware Bay; appropriate bend widening; partial deepening of the Marcus Hook anchorage; and relocation and addition of aids to navigation. Cutter-suction, hopper, and mechanical dredges will be used to remove material from the channel. The dredged material from the Delaware River portion of the project will be placed in Federally-owned confined upland disposal facilities. Dredged material from the Delaware Bay portion of the project will be used for two beneficial use projects.

For construction, the project was divided into six Reaches: AA, A, B, C, D, and E. (See Figure 1). Reaches AA and A extend from the upper project limit at Allegheny Avenue in Philadelphia to Billingsport Range, located near the Philadelphia International Airport. Reach B extends from Tinicum Range, located opposite of the airport to Cherry Island Range, located opposite of Wilmington, Delaware. Reach C extends from Deepwater Point Range, located below Wilmington, DE to New Castle Range, located at the mouth of the Chesapeake and Delaware (C&D) Canal. Reach D extends from Reedy Island Range, located south of the C&D Canal to Liston Range, located just north of Delaware Bay. Reach E covers the remaining portion of the project area from the lower portion of Liston Range in the upper portion of Delaware Bay to naturally deep water in the lower portion of the bay.

**d. Project Status.** The project is currently in the initial construction phase. Four construction contracts have been awarded to date. Of the four, two are complete, one is currently underway, and one is scheduled to begin in January 2013. A summary of the contracts is listed below:

**Table 1 – Construction Contracts Awarded**

<b>Contract No.</b>	<b>Reach</b>	<b>Start</b>	<b>Finish</b>
1	Reach C	March 2010	September 2010
2	Lower Reach B	November 2011	January 2012
3	Reach A	September 2012	January 2013*
4	Reach D	January 2013*	June 2013*

\* Indicates scheduled date

Construction contracts for the remaining portions of the project (Reaches AA, Upper Reach B, and Reach E) will be awarded based on availability of funds. Implementation documents (P&S) for the remaining contracts will be prepared and reviewed as discussed in this Review Plan.

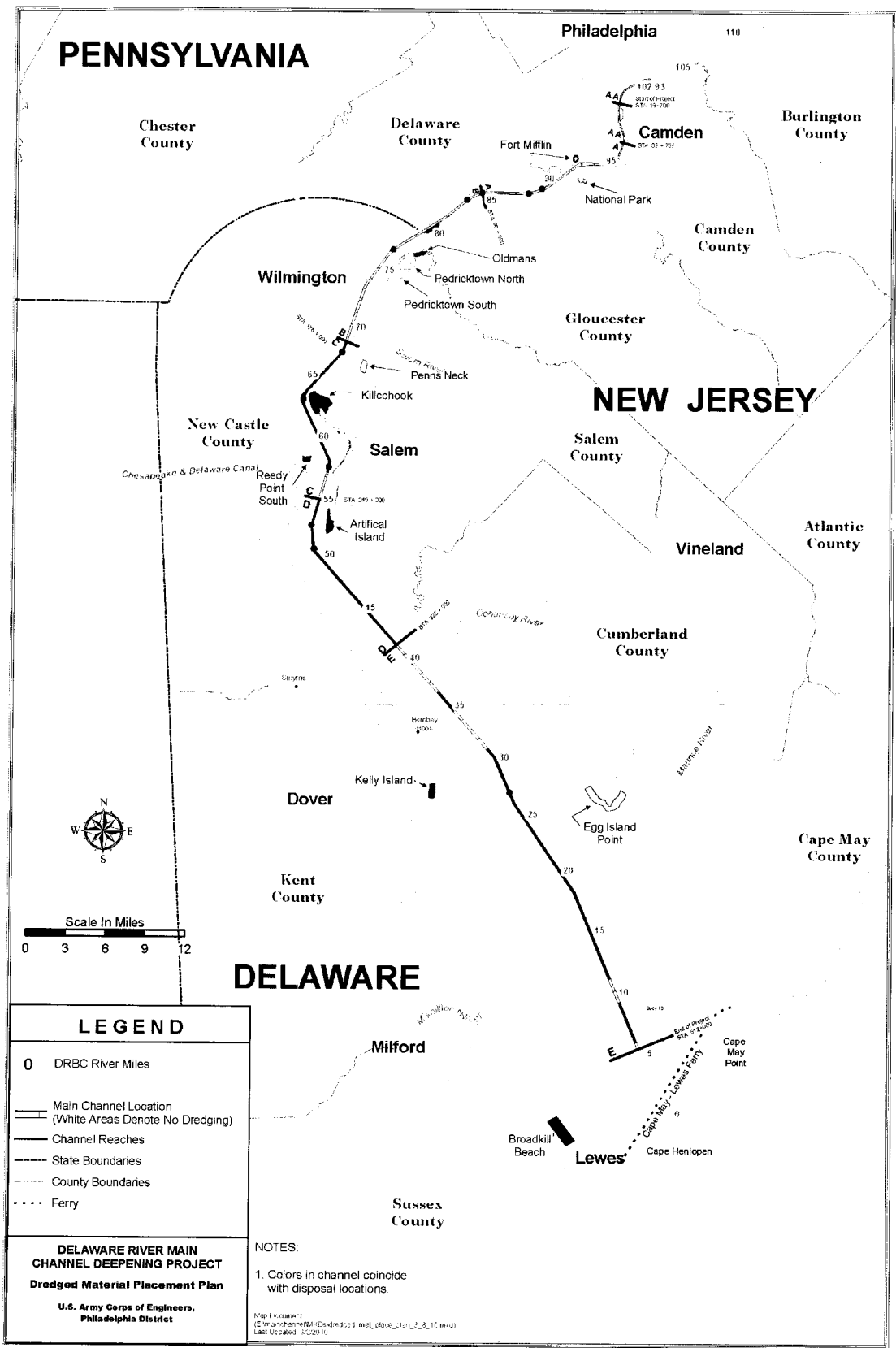


Figure 1 - Delaware River Main Channel Deepening

### 3. DISTRICT QUALITY CONTROL

District Quality Control (DQC) and Quality Assurance (QA) activities for implementation documents (plans and specifications) are stipulated in ER 1110-1-12, Engineering & Design Quality Management. The contract P&S will be prepared by the Philadelphia District using NAP procedures and will undergo DQC. DQC Certification will be verified by the Agency Technical Review Team.

### 4. AGENCY TECHNICAL REVIEW

**a. Scope.** Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-209 and ER 1110-1-12. An ATR will be performed on the P&S pre-final submittals.

ATR will be conducted by individuals and organizations outside Philadelphia District. The ATR Team Leader will be a Corps of Engineers expert from outside North Atlantic Division. The required disciplines and experience are described below.

ATR comments are documented in the DrChecks<sup>sm</sup> model review documentation database. DrChecks<sup>sm</sup> is a module in the ProjNet<sup>sm</sup> suite of tools developed and operated at ERDC-CERL ([www.projnet.org](http://www.projnet.org)).

At the conclusion of ATR, the ATR Team Leader will prepare a Review Report that summarizes the review. The report will consist of the ATR Certification Form and the DrChecks<sup>sm</sup> printout of the closed comments.

**b. ATR Disciplines.** As stipulated ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS); appointed subject matter experts (SME) ; senior level experts; Center of Expertise staff; contractors; academic or other technical experts; or a combination of the above. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

Geotechnical Engineering and Engineering Geology. The team member should be a registered professional. Experience needs to encompass geologic and geotechnical analyses that are used to support the development of P&S for dredging and shore protection projects.

Civil Engineering/Dredging Operations. The team member should be a registered professional engineer with dredging operations and/or civil/site work project experience that includes dredging and disposal operations, embankments, channels, revetments and shore protection project features.

NEPA Compliance. The team member should have experience in NEPA compliance activities and preparation of Environmental Assessments and Environmental Impact Statements for dredging, navigation, and shore protection projects.

ATR Team Leader. The ATR Team Leader will be from outside North Atlantic Division and should have experience with Navigation and/or Shore Protection Projects. ATR Team Leader may be a co-duty to one of the review disciplines.

**5. INDEPENDENT EXTERNAL PEER REVIEW**

**a. General.** EC 1165-2-209 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be managed and conducted outside the Corps of Engineers.

**b. Type I Independent External Peer Review (IEPR) Determination.** A Type I IEPR is associated with decision documents. No decision documents are addressed or covered by this Review Plan; therefore, a Type I IEPR is not applicable to the implementation documents covered by this Review Plan.

**c. Type II Independent External Peer Review (IEPR) Determination (Section 2035).** A Type II IEPR is not required for the DRMCD Project because it is not a hurricane and storm risk management or flood risk management project, and non-performance of the project does not present a significant threat to human life. Therefore, a Type II IEPR review will not be conducted on the project and is not included in this Review Plan.

**6. MODEL CERTIFICATION AND APPROVAL**

The DRMCD Project does not require the use of any engineering models that have not been approved for use by USACE.

**7. BUDGET AND SCHEDULE**

**a. DQC Schedule and Cost.** Seamless DQC review will be conducted on all P&S as they are prepared and finalized for each of the remaining construction contracts. Costs for the DQC for each contract will be presented in scopes of services for each discipline and included in the annually updated PMP.

**b. ATR Schedule and Cost.**

<b>Contract</b>	<b>Estimated Cost</b>	<b>Due Date</b>
Reach AA	To Be Determined	To Be Determined
Upper Reach B	To Be Determined	To Be Determined
Reach E	To Be Determined	To Be Determined



## 8. POINT OF CONTACT

Per guidance, the names of the following individual will not be posted on the Internet with the Review Plan. Their titles and responsibilities are listed below.

### Philadelphia District POCs:

Review Plan, ATR and QM Process, Cameron Chasten  
215-656-6920  
[Cameron.P.Chasten@usace.army.mil](mailto:Cameron.P.Chasten@usace.army.mil)

Project Information (PM) & (ETL), Scott Evans  
215-656-6680  
[Scott.r.evans@usace.army.mil](mailto:Scott.r.evans@usace.army.mil)

Jose Alvarez  
215-656-6634  
[Jose.R.Alvarez@usace.army.mil](mailto:Jose.R.Alvarez@usace.army.mil)

North Atlantic Division Alan Huntley  
347-370-4664  
[Alan.Huntley@usace.army.mil](mailto:Alan.Huntley@usace.army.mil)