



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NORTH ATLANTIC DIVISION
FORT HAMILTON MILITARY COMMUNITY
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CENAD-PD-P


MAR 11 2015

MEMORANDUM FOR Commander, Philadelphia District, (CENAP-PC/Jeff Gebert),
Wanamaker Building, Room 600, 100 Penn Square East Philadelphia, PA 19107-3390

SUBJECT: Review Plan Approval for Delaware Bay Coastline, DE & NJ, Broadkill
Beach, Delaware Limited Reevaluation Report

1. Reference, Review Plan for the Delaware Bay Coastline, DE & NJ, Broadkill Beach, Delaware Limited Reevaluation Report prepared by Philadelphia District dated February 2015.
2. The Coastal Storm Risk Management Planning Center of Expertise of the North Atlantic Division is the lead office to execute the referenced Review Plan. The Review Plan does not include Independent External Peer Review, as it is not required.
3. The above referenced Review Plan has been approved for execution and is subject to change as study 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.
4. Point of contact is Mr. Larry Cocchieri, 347-370-4571, Lawrence.J.Cocchieri@usace.army.mil.

Encl
Review Plan, Delaware Bay Coastline
Broadkill Beach LRR



KENT D. SAVRE
Brigadier General, USA
Commanding

REVIEW PLAN

LIMITED REEVALUATION REPORT

**DELAWARE BAY COASTLINE, DELAWARE & NEW JERSEY
BROADKILL BEACH, DELAWARE**

**Philadelphia District
P2# 145902**

**MSC Approval Date:
Last Revision Date: 2/12/2015**

**REVIEW PLAN
LIMITED REEVALUATION REPORT**

**DELAWARE BAY COASTLINE, DE & NJ
BROADKILL BEACH, DELAWARE**

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan (RP) defines the scope and level of peer review for a Limited Reevaluation Report (LRR) for the “Delaware Bay Coastline, DE & NJ, Broadkill Beach, Delaware” project (hereafter referred to as the “Broadkill Beach” project).

b. References

- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review Policy, 15 December 2012
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007, and Appendix G, Planning Reports and Programs, Amendment #1, 30 June 2004.

c. Requirements. This RP was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-214), and planning models are subject to certification/approval (per EC 1105-2-412).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this RP. The RMO for the peer review effort described in this Review Plan is the National Planning Center for Coastal Storm Risk Management (PCX-CSR). The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

3. PROJECT BACKGROUND

a. Decision Document. The purpose of this Limited Reevaluation Report is to update the feasibility study benefits and costs to current price levels at the applicable FY15 Federal discount rate, in order to verify the economics of periodic nourishments for the project. The LRR is required to support the development, approval, and execution of a Project Partnership Agreement (PPA) with the non-Federal sponsor, the Delaware Department of Natural Resources and Environmental Control (DE DNREC) for project monitoring and periodic nourishment of the project, estimated as recurring at five-year intervals after initial construction. The LRR will also support future budgetary submissions required by higher authority for the project. A review of the Environmental Assessment has also been conducted to consider any environmental changes since completion of the feasibility report. The document is to be approved at the Major Subordinate Command level by the North Atlantic Division (NAD), and additional Congressional Authorization is not required.

b. Authorization. The Broadkill Beach project was authorized for construction by Title I, Section 101 (a) (11) of WRDA 1999. The authorizing language is presented below.

(11) DELAWARE BAY COASTLINE, DELAWARE AND NEW JERSEY-BROADKILL BEACH, DELAWARE.—The project for hurricane and storm damage reduction, Delaware Bay coastline, Delaware and New Jersey-Broadkill Beach, Delaware; Report of the Chief of Engineers dated August 17, 1998, at a total cost of \$9,049,000, with an estimated Federal cost of \$5,674,000 and an estimated non-Federal cost of \$3,375,000, and at an estimated average annual cost of \$538,200 for periodic nourishment over the 50-year life of the project, with an estimated annual Federal cost of \$349,800 and an estimated annual non-Federal cost of \$188,400.

c. Study/Project Description. Philadelphia District (NAP) completed the "Delaware Bay Coastline, Delaware and New Jersey - Broadkill Beach, Delaware Final Integrated Feasibility Report and Environmental Assessment" in September 1996. The feasibility report formed the basis for the Report of the Chief of Engineers issued 17 August 1998, and the project was authorized for construction by WRDA 1999.

Broadkill Beach is an unincorporated community located in Sussex County, Delaware, approximately three miles northwest of Lewes, and includes approximately three miles of bay frontage. The area has experienced coastal storm damage, and continued erosion has resulted in a reduction in the height and width of the beachfront. In addition, the lack of a continuous dune system and proximity of private and public infrastructure to the shoreline leads to significant risk of coastal storm damage. The authorized plan for Broadkill Beach includes a 100 ft wide berm at elevation +8 ft NGVD and a dune at elevation +16 ft NGVD with a crest

width of 25 ft. The selected plan includes dune grass, dune fencing and periodic nourishment to ensure the integrity of the design.

To date the project has received \$293,000 in Construction General (CG) appropriations but has had no physical construction. However, the entire initial construction of the Broadkill Beach project will be accomplished as part of the Delaware River Main Channel Deepening. New work dredged material (sand) from Reach E of the Delaware Bay portion of the Main Channel will be placed on Broadkill Beach as a “beneficial use of dredged material” feature. NAP awarded the contract for Reach E construction on 6 June 2014, with work scheduled to be completed by April 2016. This action will complete the entire initial construction of the Broadkill Beach project with 100% of the cost covered by the Delaware River Main Channel Deepening. Therefore, ***this LRR analyses will be limited to the costs and benefits of future periodic nourishment and will reflect the fact that there are “zero” initial construction costs attributed to the Broadkill Beach project.***

4. REVIEW

EC 1165-2-214 describes four levels of review: District Quality Control (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR) Type I and Type II, and Policy and Legal Compliance Review. In addition to these levels of review, study documents are subject to cost engineering review and certification.

Factors Affecting the Scope and Level of Review. This section discusses the factors affecting the risk informed decisions on the appropriate scope and level of review. The discussion is intended to be detailed enough to assess the level and focus of review and support the PDT, PCX, and vertical team decisions on the appropriate level of review and types of expertise represented on the various review teams. Factors affecting the risk informed decisions on the appropriate scope and level of review include the following:

- *If parts of the study will likely be challenging (with some discussion as to why or why not and, if so, in what ways – consider technical, institutional, and social challenges, etc.);*
There are no challenging aspects of this study. This project is a simple dredge-and-place sand beachfill that is similar to numerous other projects constructed by NAP in NJ and DE over the past two decades. The initial construction of the Broadkill Beach project is being accomplished as part of the Delaware River Main Channel Deepening. This LRR addresses only the economics associated with future periodic nourishment of the authorized project, in order to demonstrate that the project remains economically justified.

- A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be (e.g., what are the uncertainties and how might they affect the success of the project); There are no known additional risks associated with future periodic nourishment of the authorized project. The authorized project template will not change. Uncertainties in construction cost estimates will be captured during development of the cost estimate.
- If the project is likely to have significant economic, environmental, and/or social effects to the Nation (with some discussion as to why or why not and, if so, in what ways); The project is not likely to have significant negative economic, environmental, or social effects to the Nation, and no additional effects are anticipated to result from the future periodic nourishment.
- If the project likely involves significant threat to human life/safety assurance (with some discussion as to why or why not and, if so, in what ways – consider at minimum the safety assurance factors described in EC 1165-2-214 including, but not necessarily limited to, the consequences of non-performance on project economics, the environmental and social well-being [public safety and social justice; residual risk; uncertainty due to climate variability, etc.]; The future periodic nourishment of the project will not present a significant threat to human life/safety.
- If the project/study is likely to have significant interagency interest (with some discussion as to why or why not and, if so, in what ways); The proposed renourishment is not expected to have significant interagency issues.
- If the project/study will be highly controversial (with some discussion as to why or why not and, if so, in what ways); The project and this LRR are not highly controversial. The non-Federal sponsor of the project, DE DNREC, placed sand on Broadkill Beach several times prior to the WRDA 1999 authorization to construct the project.
- If the project report is likely to contain influential scientific information or be a highly influential scientific assessment (with some discussion as to why or why not and, if so, in what ways); The project report does not contain influential scientific information and is not a highly influential scientific assessment. The purpose of the LRR is to demonstrate that the project economics remain justified.
- If the information in the decision document or proposed project design will likely be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices (with some discussion as to why or why not and, if so, in what ways); Neither the information in the LRR nor the project design are based on novel methods, nor do they use innovative materials or

techniques or present complex challenges. The project is not precedent setting, and will not change prevailing practices. The anticipated dredging techniques are the same as those used commonly in other constructed beachfill projects and have been successfully used on periodic nourishment of other projects.

- *If the proposed project design will require redundancy, resiliency, and/or robustness (with some discussion as to why or why not and, if so, in what ways – see EC 1165-2-214, Appendix E, Paragraph 2 for more information about redundancy, resiliency, and robustness);* The Broadkill Beach project is a simple beachfill, with dune and berm features for coastal storm risk reduction. The project, and specifically the periodic nourishment component of the project (which is the subject of this LRR), do not require any special redundancy, resilience, or robustness beyond that which is inherent in the project design and anticipated performance. Beachfill projects for coastal storm risk reduction are inherently redundant in that periodic nourishment is a part of the project plan. The project is resilient in that the beach naturally recovers to some extent after storms, even if additional beachfill is required to restore the project after an especially large storm event. Beach nourishment projects are inherently robust because they add sand to the natural system and consequently reduce damages.
- *If the proposed project has unique construction sequencing or a reduced or overlapping design construction schedule (with some discussion as to why or why not and, if so, in what ways).* There is no unique construction sequencing or unique design/construction schedule required for this project.

4a. District Quality Control (DQC)

District Quality Control is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements. All work products undergo DQC. Basic quality control tools include quality checks and reviews, supervisory reviews, and Project Delivery Team (PDT) reviews. The home district is responsible for managing the DQC.

Quality checks and reviews occur during the development process and are carried out as a routine management practice. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts.

PDT reviews are performed by members of the PDT to ensure consistency and effective coordination across all project disciplines. Additionally, the PDT is responsible for a complete reading of any reports and accompanying appendices prepared by or for the PDT to assure the

overall coherence and integrity of the report, technical appendices, and the recommendations before approval by the District Commander.

DQC review is a standard requirement for all studies. All DQC comments will be formally answered in a normal comment/response format and compiled. The DQC comments and responses and the back-check will be provided to the ATR team and will become a permanent part of the study documentation.

4b. Agency Technical Review (ATR)

The objective of the ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated Review Management Organization (RMO) and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the study. The National Planning Center for Coastal Storm Risk Management (PCX-CSR) will select the ATR team members except for the cost engineer. The Cost Engineering Directory of Expertise (DX), located in the Walla Walla District, will provide the cost engineering review and resulting certification. A Plan Formulation Regional Technical Specialist (RTS) will be the lead in addition to performing the Plan Formulation review, and will certify the ATR. As stipulated in ER 1110-1-12, ATR members are sought from the following disciplines and sources: regional technical specialists (RTS); appointed subject matter experts (SME) from other districts; senior level experts from other districts; Center of Expertise staff, appointed SME or senior level experts from the responsible district; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. The ATR lead will be from outside the home MSC.

4b1. Products to Undergo ATR. During the planning process, the draft LRR and final LRR will undergo ATR.

4b2. Required ATR Team Expertise. The ATR reviewers' objective is to develop, maintain, and apply the best and most appropriate nationally available expertise, science, and engineering technology. The ATR team will be comprised of personnel from following disciplines:

(1) ATR Lead - The ATR lead must be a senior professional preferably with experience in coastal projects and conducting ATRs. The ATR lead must have a minimum of 5 years experience in Corps civil works. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental etc). At this time, it is anticipated that the lead ATR will also be the lead planner.

(2) Plan Formulator – The Plan formulator must have recent experience in conducting the plan formulation process for beach renourishment projects and have a minimum of 5 years experience as a Plan formulator.

(3) Economist – The ATR team member must be an Economist and have recent experience with coastal projects and renourishment.

(3) Environmental/Biologist - The ATR team member will review the Environmental Assessment (EA). This person must also review the EA from a cultural resources standpoint. They must also have a good understanding of coastal projects and renourishments, and have a thorough understanding of coordination requirements with federal and state agencies.

(4) Hydraulics and Hydrology – This ATR member must have a minimum of 10 years relevant experience in coastal projects and be a register professional engineer with a good understanding of coastal projects and renourishments and have a thorough understanding of coordination requirements with federal and state agencies.

(5) Cost Estimator- Team member(s) should be familiar with the most recent version of MII software and total project cost summary. The Cost Reviewer is required to coordinate with the Walla Walla Cost DX staff for further cost engineering review and resulting certification.

(6) The Real Estate reviewer is to have expertise in the real estate planning process for cost shared and full federal civil works projects, relocations, report preparation and acquisition of real estate interests including Coastal Storm Damage Reduction projects. The reviewer should have a full working knowledge of EC 405-2-12, Real Estate Planning and Acquisition Responsibilities for Civil Works Projects and Public Law 91-646. The reviewer should be able to identify areas of the REP that are not in compliance with the guidance set forth in EC405-2-12 and should make recommendations for bringing the report into compliance. All estates suggested for use should be reviewed to assure they are sufficient to allow project construction, and the real estate cost estimate should be validated as being adequate to allow for real estate acquisition.

4b3. Documentation of ATR. DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process.

Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern. In some situations, especially to address incomplete or unclear information, ATR Team members may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district and MSC), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-2-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing their review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and attributions, or represent the views of the group as a whole, including any disparate and dissenting views.

The ATR will be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review will be completed prior to the MSC review.

4c. Independent External Peer Review (IEPR)

Type I IEPR is required for all decision documents except where no mandatory triggers apply, criteria for exclusion are met, and a risk-informed recommendation justifies exclusion. An IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, will be made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

Type I IEPR. Type I IEPR reviews are managed outside USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214.

Based on the guidance provided by HQUSACE, an LRR does not trigger the need for an IEPR unless "verification of the project economics or the NEPA update ultimately results in the need to reformulate the project such that a modification of the authority is required." Therefore, per guidance in EC 1165-2-214 this LRR is considered an "Other Work Product" and Type I IEPR is not proposed for this project.

For this study, the PDT reviewed the mandatory triggers that warrant Type I IEPR and reached the following conclusions were reached:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than \$45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS);
- The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
- The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;

- The information in the study document or anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices; and
- The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule.

Type II IEPR. Type II IEPRs, or Safety Assurance Reviews (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare. The District Chief of Engineering, as the Engineer-in-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review since the project does not require design and construction activities and present no significant threat to human life.

Failure of the project will not pose a significant threat to human life. Therefore, no Type II IEPR is planned at this time.

4d. Policy and Legal Compliance Reviews

Documents will be reviewed throughout the project development process for their compliance with law and policy. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in study documents.

4e. Cost Engineering Directory of Expertise (DX) Review and Certification

All study documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX.

5. ENGINEERING AND PLANNING MODELS

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

EC 1105-2-412 does not cover engineering models used in planning. The process the Hydrology, Hydraulics and Coastal Community of Practice (HH&C CoP) of USACE follows to validate engineering software for use in planning studies and to satisfy the requirements of the Corps' Scientific and Engineering Technology (SET) initiative is provided in Enterprise Standard (ES)-08101 Software Validation for the Hydrology, Hydraulics and Coastal Community of Practice. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

- a. **Planning Models.** No economic models will be used. Economic calculations will all be based on standardized economic analysis spreadsheets that convert a lifecycle stream of costs to equivalent annual cost values.
- b. **Engineering Models.** There are no engineering models that will be applied to perform this economic analysis update of periodic nourishment costs and benefits.

6. REVIEW SCHEDULES AND COSTS

Review of the Broadkill Beach LRR will occur during FY2015. Per guidance from Mr. Lawrence Cocchieri of the NAD PCX-CSR, it is estimated that ATR will cost \$25K and that the Walla Walla Cost Engineering DX review will cost \$10K. No IEPR is required and hence there are no costs associated with IEPR for this LRR.

7. PUBLIC PARTICIPATION

It is not anticipated that any public participation will be required or performed for this LRR. The purpose of the LRR is to update the feasibility study benefits and costs to current price levels at the applicable FY15 Federal discount rate, in order to verify the economic justification of periodic nourishment of the project. The LRR is required to support the development, approval, and execution of a Project Partnership Agreement (PPA) with the non-Federal sponsor, DE DNREC, for project monitoring and periodic nourishment. The LRR will also support future budgetary submissions required by higher authority for the project. The document is to be approved at the Major Subordinate Command level by the North Atlantic Division (NAD), and additional Congressional Authorization is not required.

8. REVIEW PLAN APPROVAL AND UPDATES

The North Atlantic Division Commander is responsible for approving this RP. This RP is a living document and may change as the project progresses. The Philadelphia District is responsible for keeping the RP current. Minor changes to the RP since the last North Atlantic Division Commander approval will be documented and included in the latest RP. Significant changes to the RP (such as changes to the scope and/or level of review) must be re-approved by the North Atlantic Division Commander following the process used for initially approving the Plan. The latest version of the RP, along with the Commanders' approval memorandum, will be posted on the home District's webpage.

9. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this RP can be directed to the following point of contact:

Philadelphia District LRR Manager, Jeff Gebert at (215) 656-6573

NAD Program Manager, Chris Ricciardi at (347) 370-4534

National Planning Center for Coastal Storm Risk Management (PCX-CSR) LRR manager, Larry Cocchieri at (347) 370-4571

ATTACHMENT 1

TEAM ROSTERS

PROJECT DELIVERY TEAM

Project Manager: Scott Evans, CENAP-DP-CW (215) 656-6680

Plan Formulator: Jeff Gebert, CENAP-PL (215) 656-6573

Economist: Robert Selsor, CENAP-PL-D (215) 656-6569

Biologist: Barbara Conlin, CENAP-PL-E (215) 656-6557

Project Engineer: Glenn McKenzie, CENAP-EC-EC (215) 656-XXXX

Cost Engineer: Luis Alfredo Montes, CENAP-EC- EE (215) 656-6639

Real Estate: TBD, CENAB-RE-C (410) 962-4944

MAJOR SUBORDINATE COMMAND

*Once selected, the ATR team will be added in the next revision of the Review Plan.

ATTACHMENT 2

SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrCheckssm.

SIGNATURE

Name

Date

ATR Team Leader

Office Symbol

SIGNATURE

Name

Date

Review Management Office Representative

Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE

Name

Date

Chief, Engineering Division

Office Symbol

ATTACHMENT 3

ACRONYMS AND ABBREVIATIONS

Term Definition Term Definition

ATR: Agency Technical Review

QMP: Quality Management Plan

PCX-CSR: National Planning Center for Coastal Storm Risk Management

QA: Quality Assurance

QC: Quality Control

DQC: District Quality Control/Quality Assurance

RP: Review Plan

DX: Directory of Expertise

EA Environmental Assessment RMO Review Management Organization

EC: Engineer Circular RTS Regional Technical Specialist

EIS: Environmental Impact Statement

SAR: Safety Assurance Review

H&H CoP: Hydraulics and Hydrology and Coastal community Practice

SET: Scientific and Engineering Technology

HQUSACE: Headquarters, U.S. Army Corps of Engineers

SME: Subject Matter Experts

IEPR: Independent External Peer Review

USACE: U.S. Army Corps of Engineers

LRR: Limited Reevaluation Report

WRDA: Water Resources Development Act

MSC: Major Subordinate Command

NEPA: National Environmental Policy Act

OMRR&R: Operation, maintenance, repair, replacement, and rehabilitation

PCX: Planning Center of Expertise

PDT: Project Delivery Team

PAC: Post Authorization Change

PMP: Project Management Plan

PL: Public Law