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| **Feasibility Phase** DECISION DOCUMENT REVIEWPLAN |

**TANGIER ISLAND JETTY**

**ACCOMACK COUNTY, VIRGINIA**

**SECTION 107**

**NAVIGATION PROJECT**

****

**U.S. Army Corps of Engineers**

**Norfolk District**

**803 Front Street**

**Norfolk, Virginia 23510-1096**

**August 2012**

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1. **PURPOSE AND REQUIREMENTS**
   1. **Purpose.** This Review Plan defines the scope and level of peer review for the Tangier Island Jetty, Accomack County, Virginia, Section 107 Navigation Project Detailed Project Report (DPR). This Plan is an attachment to the Project Management Plan (PMP). Section 107 of the River and Harbor Act of 1960, as amended, gives the Norfolk District, US Army Corps of Engineers (USACE) the authority to conduct an investigation to determine if a small Federal navigation project is justified. This project is strongly supported by the Town of Tangier (their #1 priority) and is high on the Governor’s priority list as well.
   2. **Applicability.** This review plan is based on the model National Programmatic Review Plan for Section 14, 107, 111, 204, 206, 208 and 1135 project decision documents, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in Engineering Regulation (ER) 1165-2-209 Civil Works Review Policy. Section 14, 107, 111, 204, 206, 208, and 1135 projects do not require IEPR if ALL of the following specific criteria are met:

* 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;
* Based on the information available, the project/study is not anticipated to 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 decision 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;
* The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and
* There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.

If any of the above criteria are not met, the model National Programmatic Review Plan is not applicable and a study specific review plan must be prepared by the home district, and approved by the home Major Subordinate Command (MSC) in accordance with Engineering Circular (EC) 1165-2-209. Applicability of the model National Programmatic Review Plan for a specific project is determined by the home MSC. If the MSC determines that the model plan is applicable for a specific study, the MSC Commander may approve the plan (including exclusion from IEPR) without additional coordination with a Headquarters, USACE. The initial decision as to the applicability of the model plan should be made no later than the Federal Interest Determination (FID) milestone (as defined in Appendix F of ER 1105-2-100, F-10.e.1) during the feasibility phase of the project. A review plan for the project will subsequently be developed and approved prior to execution of the Feasibility Cost Sharing Agreement (FCSA) for the study. In addition, per EC 1165-2-209, the home district and MSC should assess at the Alternatives Formulation Briefing (AFB) whether the initial decision on Type I IEPR is still valid based on new information. This review plan does not cover implementation products. A review plan for the design and implementation phase of the project will be developed prior to approval of the final decision document in accordance with EC 1165-2-209.

**c. References**

* + - EC 1165-2-209, Water Resources Policies and Authorities, Civil Works Review Policy, 31 Jan 2010
    - EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005
    - ER 1110-2-12, Quality Management, 30 Sep 2006
    - ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
* ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
* Feasibility Phase Project Management Plan, Tangier Island Jetty, Accomack County, Virginia, August 2012
* 22500-NAD, USACE North Atlantic Division Regional Quality Assurance Program (R-QAP), March 27, 2012

**d. Requirements.** This review plan was developed in accordance with EC 1165-2-209, 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 levels of review: DQC, ATR, IEPR, and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering and certification (per EC1165-2-209) and planning model certification/approval (per EC 1105-2-407).

* + - District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. The MSC/District quality management plans address the conduct and documentation of this fundamental level of review.
    - Agency Technical Review (ATR). ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assure that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.
    - Independent External Peer Review (IEPR). 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. IEPR is generally for feasibility and reevaluation studies and modification reports with EISs. IEPR is managed by an outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c) (3), is exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project.
    - Policy and Legal Compliance Review. Decision documents will be reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Washington-level determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100, Planning Guidance Notebook. When policy and/or legal concerns arise during DQC or ATR that are not readily and mutually resolved by the PDT and the reviewers, the District will seek issue resolution support from the MSC and Headquarters, USACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration polices, nor are they expected to address such concerns. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency.
    - Safety Assurance Review. In accordance with Section 2035 of Water Resources Development Act (WRDA) of 2007, EC 1105-2-410 requires that all projects addressing flooding or storm damage reduction undergo a safety assurance review of the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare. A future circular will provide a more comprehensive Civil Works Review Policy that will address the review process for the entire life cycle of a Civil Works project. That document will address the requirements for a safety assurance review for the Pre-Construction Engineering Phase, the Construction Phase, and the Operations Phase. The decision document phase is the initial design phase; therefore, ER 1105-2-410 requires that safety assurance factors be considered in all reviews for decision document phase studies.
    - Model Certification/Approval. EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models 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 EC does not cover engineering models used in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed.

1. **REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION**

The RMO is responsible for managing the overall peer review effort described in this review plan. The RMO for Section 107 decision documents is the home MSC. The MSC will coordinate and approve the review plan and manage the ATR. The home District will post the approved review plan on its public website.

1. **STUDY INFORMATION**
2. **Decision Document.** The Tangier Island Jetty, Accomack County, Virginia decision document will be prepared in accordance with ER 1105-2-100, Appendix F. The approval level of the decision document (if policy compliant) is the home MSC. An Environmental Assessment (EA) will be prepared along with the decision document.
3. **Study Description.** Tangier Island is located in the Chesapeake Bay approximately 65 miles north of Norfolk, Virginia and approximately 90 miles southeast of Washington, DC and is entirely within the political boundaries of Accomack County on Virginia's Eastern Shore. The exposure of the Federal navigation channel and adjacent harbor to direct wave attack from northwest winds, as well as sheets of ice pushed into the inner channel and harbor during winter, has created serious problems.

A solution to these problems was originally developed in a March 1995 Continuing Authorities Program (CAP) reconnaissance report. The report found that the proposed jetty plan was not economically feasible with a benefit to cost ratio (BCR) of 0.50. Notwithstanding the BCR, the Water Resources Development Act (WRDA) of 1996 (Public Law 104-303) authorized the project, stating that: “in view of the historic preservation benefits resulting from the project…, the overall benefits of the project exceed the costs of the project”. A memorandum from the Assistant Secretary of the Army (Civil Works) dated 25 June 2012 concurred with the USACE North Atlantic Division Regional Integration Team’s recommendation to begin the Feasibility Phase. This allowed the Norfolk District to proceed with negotiating and executing an FCSA.

The preliminary plan, as discussed in the 1995 reconnaissance report, now calls for a jetty that would extend south approximately 300 feet from the north shore of the channel on the western side of the island, into the Federal channel, and then dogleg southwest approximately 200 feet, paralleling the channel. About 170 feet of revetment would armor the shoreline at the base of the structure. In addition, a small, 50-foot spur jetty would be constructed off the seawall on the south shore adjacent to the North Channel to reduce wave refraction.

The purpose of this project is to protect the inner channel and harbor from direct wave attack and sheets of ice. It will also reduce erosion of the shoreline and sediment inflow to the existing Federal navigation channel. Specifically, these problems cause hazards to navigation, delays, and inflict damage on vessels.

# Factors Affecting the Scope and Level of Review. This study does not have significant technical or policy issues outside the norm for Section 107 studies in this region of the country. Given the mandate of WRDA 1996, the economic analysis will consist of a least cost analysis only. In addition, this is not a typical Section 107 study, since it deals with a jetty only. Methods and models used in this study are standard of all Section 107 studies and are not expected to present greater challenges or changes to prevailing practices. There has been no reported loss of life as a result of the wave attack and ice flows in the North Channel or the Harbor. The project does not involve a significant threat to human life since the immediate project area is not highly populated. There has been no request by the governor for a peer review by independent experts. Due to the emergent nature of this project, it is not likely to involve significant public dispute in regards to the size, effects, economic or environmental effects of the project. In fact, this project is strongly supported by the Town of Tangier (their #1 priority) and is high on the Governor’s priority list. Project performance may be affected by sea level change, but not by climate variability.

**d. In-Kind Contributions.** Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The anticipated quantity and categories of the non-Federal sponsor’s in-kind contributions are outlined in the PMP.

1. **DISTRICT QUALITY CONTROL (DQC)**

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

There will be DQC review performed on the Planning and Design Analysis Plan Formulation Report. Basic quality control tools include checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and recommendations.

1. **AGENCY TECHNICAL REVIEW (ATR)**

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.) The ATR shall ensure that the product is consistent 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 the results in a reasonably clear manner for the public and decision makers. ATR is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR lead will be from outside the home MSC. The leader of the ATR team will participate in milestone conferences to address review concerns.

* 1. **Products to Undergo ATR.** ATR will be performed throughout the study in accordance with the District and MSC Quality Management Plans. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include: the Feasibility Scoping Meeting documentation, Alternative Formulation Briefing, and the Draft and Final Reports.
  2. **Required ATR Team Expertise.**

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| **ATR Team Members/Disciplines** | **Expertise Required** |
| ATR Lead | The ATR lead should be a senior professional with extensive experience in preparing Section 107 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). The ATR lead must be from outside the Norfolk District. |
| Planning | The Planning reviewer should be a senior water resources planner with experience in navigation studies. Team member will be an expert in the field of plan formulation and have a thorough understanding of planning principles and procedures. The planner must have an in-depth knowledge of planning guidance such as ER-1105. |
| Economics | The Economics reviewer should be a senior water resources planner with experience in navigation studies. Team member will be an expert in the field of economics and have a thorough understanding of economic analysis procedures as it relates to a least cost analysis. |
| Environmental Resources | The Environmental Resources reviewer should be a senior environmental resource professional with experience in the field of Environmental Planning and have a thorough understanding of the National Environmental Policy Act (NEPA) as it relates to coastal storm damage reduction and ecosystem restoration. They should also be experienced in the cultural resource coordination necessary for this type of study. |
| Hydrology and Hydraulic/Coastal Engineering | The hydrology and hydraulic/coastal engineering reviewer will be an expert in the field and have a thorough understanding of sediment transport in an open channel system. They should also have experience with hydrodynamic modeling—specifically the Surface-Water Management System (version 11.0) and structural construction techniques, especially with respect to jetty construction. The reviewer should also have experience in coastal processes as they relate to navigation. |
| Cost Engineering | The Cost Engineering reviewer should be a senior cost engineer certified by the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District. |

* 1. **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:
     + The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
     + The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
     + 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
     + 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 addressing incomplete or unclear information, comments may seek clarification in or 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 coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), 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 the 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
* Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may 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 should be completed prior to the District Commander signing the final report. A sample Statement of Technical Review is included in Attachment 2.

1. **INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

IEPR may be required for decision documents under certain circumstances. 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 1165-2-209, is 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 the 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 1165-2-209. For Section 14, 107, 111, 204, 206, 208 and 1135 decision documents prepared under the model National Programmatic Review Plan, Type I IEPR is not required.
* Type II IEPR. Type II IEPR, or Safety Assurance Review (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 will 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 shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

For Section 14, 107, 111, 204, 206, 208 and 1135 decision documents prepared under the model National Programmatic Review Plan. Type II IEPR is not anticipated to be required in the design and implementation phase, but this will need to be verified and documented in the review plan prepared for the design and implementation phase of the project.

**a. Decision on IEPR.** Based on the information and analysis provided in the preceding paragraphs of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis. If any of the criteria outlined in paragraph 1(b) are not met, the model National Programmatic Review Plan is not applicable and a study specific review plan must be prepared by the home district, and approved by the home MSC in accordance with EC 1165-2-209.

**b. Products to Undergo Type I IEPR**. Not applicable.

**c. Required Type I IEPR Panel Expertise**. Not Applicable.

1. **Documentation of Type I IEPR.** Not Applicable.
2. **POLICY AND LEGAL COMPLIANCE REVIEW**

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. 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 decision documents.

1. **COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION**

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. For decision documents prepared under the National Programmatic Review Plan Model, Regional cost personnel that are pre-certified by the DX will conduct the cost engineering ATR. The DX will provide the Cost Engineering DX certification. The RMO will coordinate with the Cost Engineering DX on the selection of the cost engineering ATR team member.

1. **MODEL CERTIFICATION AND APPROVAL**

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 responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. 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).

* 1. **Planning Models.** The following planning models are anticipated to be used:

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| **Model Name and Version** | **Brief Description of the Model and How It Will Be Applied in the Study** | **Approval Status** |
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* 1. **Engineering Models.** The following engineering models are anticipated to be used.

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| **Model Name and Version** | **Brief Description of the Model and How It Will Be Applied in the Study** | **Approval Status** |
| STWAVE (Smith et al. 2001) and /or CMS-Wave  CGWAVE  BOUSS-2D | Spectral (phase-averaged) wave models that will provide locally-generated wind wave estimates at the project site. However, this class of model has limitations for modeling wave diffraction, reflection, and transmission caused by structures.  Phase-resolving wave models designed to model wave-structure interactions that cannot be as completely represented by other types of models will be used as necessary. | CoP Preferred  CoP Preferred |

1. **REVIEW SCHEDULES AND COSTS**
   1. **ATR Schedule and Cost.** ATR will be completed prior to submission of documentation to the vertical team for a decision. ATR cost for the PDR is expected to be approximately $50,000.
   2. **IEPR Schedule and Cost.** Not-applicable
   3. **Model Certification/Approval Schedule and Cost.** For decision documents prepared under the model National Programmatic Review Plan, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through the ATR process. The ATR team will apply the principles of EC 1105-2-407 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. If specific uncertified models are identified for repetitive use within a specific district or region, the MSC(s) and home District(s) will identify a unified approach to seek certification of these models.
2. **PUBLIC PARTICIPATION**

State and Federal agencies may be invited to participate in the study covered by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of any public and agency comments.

The non-Federal sponsor will be given the opportunity to review the decision document and provide comments. Once the Detailed Project Report is approved by the home MSC and is considered final, it will available for distribution to the public.

1. **REVIEW PLAN APPROVAL AND UPDATES**

The Home MSC Commander is responsible for approving this Review Plan. The Commander’s approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders’ approval memorandum, should be posted on the Home District’s webpage. The latest Review Plan should also be provided to the RMO and home MSC.

1. **REVIEW PLAN POINTS OF CONTACT**

Public Questions and/or comments on this review plan can be directed to the following points of contact:

* + - U.S. Army Corps of Engineers, Norfolk District

ATTN: Tangier Jetty CAP 107 PTTL Lawrence H. Ives, CENAO-WR-PR

803 Front Street

Norfolk, VA 23510-1096

* U.S. Army Corps of Engineers, North Atlantic Division

ATTN: Supervisory Civil Engineer, CENAD-PD-P

302 General Lee Ave

Brooklyn, NY 11252

**ATTACHMENT 1: TEAM ROSTERS**

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| Project Role | PDT Member | Organization |
| Planning and Policy Branch |  | WR-P |
| PM / Coordination and Public Involvement | Tom Lochen | WR-PR |
| Plan Formulation / Report Preparation | Larry Ives  (PTTL) | WR-PR |
| Economic Studies | Andrew Bazzle | WR-PR |
| Socio-Economic/Cultural Resources Studies | John Haynes | WR-PE |
| Environmental Studies | David Schulte | WR-PE |
| USFWS | TBD | TBD |
| Flood Plain Studies | Paul Moye | WR-PF |
| Operations Branch |  | WR-O |
| GIS Studies | Karin Dridge | WR-OG |
| Navigation and Survey Support | Chris Rowley | WR-ON |
| Technical Support | Hurley Foulk | WR-OT |
| Regulatory Studies | Robert Cole | WR-R |
| Engineering Studies |  | EC-E |
| H&H Studies | Alicia Farrow | EC-EH |
| Geo-Environmental Studies | Jeremy Pianalto | EC-EG |
| Cost Engineering | Mike Hall | EC-EE |
| Coastal and Hydraulics Laboratory | Zeki Demirbilek | ERDC |
| Real Estate Studies | David Parson | RE-A |
| Contracting Support | Veronica McGuire | CT |
| Programs Support | Williams Ogunleye | PM-R |
| Office of Counsel Studies | Kyle Guess | OC |
| Public Affairs Support | Patrick Bloodgood | PA |
| Resource Management Support | Marsha Turner | RM |
| ATR Support | TBD | TBD |
| Non-Federal Partner | Town of Tangier | TBD |
| Non-Federal Partner | Commonwealth of Virginia | TBD |

1. Other PDT members may be added as warranted.

**ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS**

**COMPLETION OF AGENCY TECHNICAL REVIEW**

The Agency Technical Review (ATR) has been completed for the Feasibility Study for Tangier Jetty, Section 107 Navigation Project. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-209. 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.

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|  |  |  |
| *Name* |  | Date |
| ATR Team Leader |  |  |
| *Office Symbol/Company* |  |  |

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| --- | --- | --- |
|  |  |  |
| *Name* |  | Date |
| Project Manager |  |  |
| *Office Symbol* |  |  |

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| --- | --- | --- |
|  |  |  |
| *Name* |  | Date |
| Architect Engineer Project Manager1 |  |  |
| *Company, location* |  |  |

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| --- | --- | --- |
|  |  |  |
| *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.

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| *Name* |  | Date |
| Chief, Engineering Division |  |  |
| *Office Symbol* |  |  |

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|  |  |  |
| *Name* |  | Date |
| Chief, Planning Division |  |  |
| *Office Symbol* |  |  |

1 Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

|  |  |  |
| --- | --- | --- |
| **Revision Date** | **Description of Change** | **Page / Paragraph Number** |
|  |  |  |
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**ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS**

| **Term** | **Definition** | **Term** | **Definition** |
| --- | --- | --- | --- |
| AFB | Alternative Formulation Briefing | NED | National Economic Development |
| ASA(CW) | Assistant Secretary of the Army for Civil Works | NER | National Ecosystem Restoration |
| ATR | Agency Technical Review | NEPA | National Environmental Policy Act |
| CSDR | Coastal Storm Damage Reduction | O&M | Operation and maintenance |
| DPR | Detailed Project Report | OMB | Office and Management and Budget |
| DQC | District Quality Control/Quality Assurance | OMRR&R | Operation, Maintenance, Repair, Replacement and Rehabilitation |
| DX | Directory of Expertise | OEO | Outside Eligible Organization |
| EA | Environmental Assessment | OSE | Other Social Effects |
| EC | Engineer Circular | PCX | Planning Center of Expertise |
| EIS | Environmental Impact Statement | PDT | Project Delivery Team |
| EO | Executive Order | PAC | Post Authorization Change |
| ER | Ecosystem Restoration | PMP | Project Management Plan |
| FDR | Flood Damage Reduction | PL | Public Law |
| FEMA | Federal Emergency Management Agency | QMP | Quality Management Plan |
| FRM | Flood Risk Management | QA | Quality Assurance |
| FSM | Feasibility Scoping Meeting | QC | Quality Control |
| GRR | General Reevaluation Report | RED | Regional Economic Development |
| Home District/MSC | The District or MSC responsible for the preparation of the decision document | RMC | Risk Management Center |
| HQUSACE | Headquarters, U.S. Army Corps of Engineers | RMO | Review Management Organization |
| IEPR | Independent External Peer Review | RTS | Regional Technical Specialist |
| ITR | Independent Technical Review | SAR | Safety Assurance Review |
| LRR | Limited Reevaluation Report | USACE | U.S. Army Corps of Engineers |
| MSC | Major Subordinate Command | WRDA | Water Resources Development Act |
|  |  |  |  |