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U.S. ARMY CORPS OF ENGINEERS, NORTH ATLANTIC DIVISION
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JUL 02 2014

CENAD-PD-P

MEMORANDUM FOR Commander, New York District, (CENAN-PP-C/Nathanael T. Wales) 26 Federal Plaza, New York, NY 10278

SUBJECT: Review Plan Approval for Lake Montauk Harbor, New York

1. Reference, Lake Montauk Harbor, New York Review Plan prepared by New York District dated 17 June 2014.
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 was deemed not required by Headquarters, U.S. Army Corps of Engineers on 31 July 2013.
3. The referenced Review Plan was 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.

Encl
Review Plan, Lake Montauk
Harbor



KENT D. SAVRE
Brigadier General, USA
Commanding

REVIEW PLAN

LAKE MONTAUK HARBOR
NEW YORK
Feasibility Report
New York District

MSC Approval Date: 5 December 2012
Last Revision Date: 17 June 2014



**US Army Corps
of Engineers®**

REVIEW PLAN

LAKE MONTAUK HARBOR, NEW YORK
Feasibility Report

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Lake Montauk Harbor, New York, Feasibility Report.

b. References:

- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 12
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 11
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 06
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 07
- (5) Lake Montauk Harbor PMP
- (6) New York District Quality Management Plan

c. Requirements. This Review Plan 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, operations, maintenance, repair, replacement, and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control (DQC)/Quality Assurance, 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 model certification and approval (per EC 1105-2-412).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

a. The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. Based on the current formulation of this study, the RMO for the peer review effort described in this Review Plan is the PCX-CSRM (the "Coastal PCX").

b. The RMO will coordinate with the Civil Works Cost Engineering Mandatory Center of Expertise (MCX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies. The PCX-CSR will coordinate with the small Boat Harbor Planning Sub-Center of Expertise (SBH-PSCX) for this study. There are no other PCX's necessary at this time.

3. STUDY INFORMATION

a. Decision Document. The document is Lake Montauk Harbor, New York, Chief's Report. Lake Montauk Harbor, New York is an existing shallow draft Federal navigation project originally authorized by the River and Harbor Act of March 2, 1945 (HD 369, 76th Congress, 1st Session). The shoreline area to the west, which is downdrift of the project's inlet jetties, has been eroding at an accelerated pace and increasing the existing shoreline development to exposure to damaging coastal storms. This is a multi-purpose feasibility study report to investigate additional navigation improvements and alternative measures to reduce the risk of coastal storm damages. The level of approval for the document is the Chief of Engineers. Because this study is incorporated with work done under PL113-2, initial construction will be approved by the Assistant Secretary of the Army for Civil Works, but proposed renourishments require Congressional authorization. The National Environmental Policy Act (NEPA) documentation is an Environmental Assessment (EA) prepared with the document.

b. Study/Project Description. The Lake Montauk Harbor Federal Navigation Project is located on the north shore of the south fork of Long Island, three miles west of Montauk Point in the Town of East Hampton. The Lake (a tidal estuary) is connected with Block Island Sound by an inlet channel subject to shoaling, protected by two rock jetties, and requiring regular maintenance dredging by the New York District Corps of Engineers; the shoreline along the Sound to the west of the jetties (downdrift) is additionally subject to severe erosion. The study area additionally encompasses the Block Island Sound shorelines bounded by Fort Pond Bay on the west and Shagwong Point on the east. Lake Montauk and this channel serve as an important base for the fishing industry as well as for other commercial and recreational watercraft.

(1) The existing project provides for:

(a) A channel 12 feet deep at mean low water (MLW) and 150 feet wide, extending from the 12 foot contour in Block Island Sound to the same depth in the existing yacht basin east of Star Island. The length of the existing channel is approximately .7 miles.

(b) A boat basin, 10 feet deep at MLW, 400 feet wide and 900 feet long, located northwest of Star Island.

(c) Two rock jetties. The east and west jetties are approximately 1100 and 980 long, respectively with top elevations of +8 feet MLW and are separated by 500 feet.

(2) The feasibility study primarily considers alternatives to accommodate large fishing vessels that off-load their catch at docks in the Lake and investigates the Federal interest of providing coastal storm risk management measures for the developed shoreline downdrift of the inlet.

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

(1) If parts of the study will likely be challenging (with some discussion as to why and why not and, if so, in what ways – consider technical, institutional, and social challenges, etc.):

- There are no challenging aspects in this study. The existing project is small and frequently maintenance dredged. Larger vessels have been using the channel to improve economic efficiency. The study is considering basic measures such as a deeper channel to allow safe passage of the larger vessels and to minimize delays as some vessels must wait for favorable tides to use the channel. Standard study techniques will also be used to examine the exposure of the downdrift/westerly shores to coastal storms and to consider measures such as increased use of bulkheading and beach fill to reduce the risk of storm damage.

(2) A preliminary risk 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):

- The only anticipated risks are associated with the unpredictability of the number and severity of future storm events that might affect the duration of the beach fill and renourishment benefits for the downdrift shores. Similarly, there is some risk associated in the forecasts of future sediment movements particularly those that tend to shoal the inlet channel requiring maintenance dredging. This project has an extensive dredging record and erosion history, therefore the risks associated with forecasting future shoaling rates for the channel and future renourishment rates are relatively small.

(3) If the project will be justified by life safety or if the project likely involves significant threat to human life/safety assurance, consider at minimum the safety assurance measures described in EC 1165-2-214 including, but not necessarily limited to, the consequences of non-performance of project economics, the environmental and social well-being (public safety and social justice); residual risk; uncertainty due to climate variability, etc.:

- No. The project will consider deeper channel depths which will only increase navigation safety, while seeking to increase economic efficiency for the fishing industry. The downdrift shores are already largely bulkheaded and adding more bulkheads or beach fill will reduce the current risk to residents during storms. The elevation of the downdrift properties is relatively high and no raising of the top elevation of bulkheads will likely be a project feature. Beach fill measures

would only move the damaging forces of coastal storms further offshore and away from existing residential and commercial structures.

(4) If there is a request by the Governor of an affected state for a peer review by independent experts:

There has not been such a request.

(5) If the project is likely to involve significant public dispute as to the size, nature, or effects of the project:

- It is anticipated that public issues would not be significant and would not require preparation of an Environmental Impact Statement. There have been no significant public issues with the past maintenance dredging which usually calls for placement of the dredged material on the downdrift/western shores and none are expected for the placement of potentially more beach fill with renourishments.

(6) If the project is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project:

- It is anticipated that public issues would not be significant and would not require the preparation of an Environmental Impact Statement. It is generally accepted that a deeper channel is needed, and downdrift placement of dredged material is generally desirable as a measure to reduce the risk of storm damages.

(7) If information in the decision document or anticipated project design is 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:

- Standard methods of analysis will be employed including surveys of the fishing industry practices and channel users as well as well-documented techniques for evaluating coastal processes.

(8) If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or reduced or overlapping design construction schedule:

- The project is likely to utilize standard dredging equipment that has been used many times in the past. The downdrift placement of dredged material has been employed historically. This project will utilize larger amounts of dredged material and the beach fill could utilize terminal groins common to many beach fill designs. This is not expected to require redundancy, unusual resiliency and/or

robustness, unique construction sequencing or reduced or overlapping design construction schedule.

d. **In-Kind Contributions.** The in-kind products and analyses to be provided by the non-Federal sponsor, the New York State Department of Environmental Conservation, include coordination in such matters as soliciting public involvement and local cost sharing support.

4. 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 Project Management Plan (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.

a. **Documentation of DQC.** District Quality Control will be documented through the use of a Quality Control Report, which is managed in the New York District and signed by those members performing the DQC as well as the Division Chiefs of the major technical offices responsible for producing this report.

b. **Products to Undergo DQC.** Interim and final products and ultimately the Feasibility report and appendices and the EA

c. **Required DQC Expertise.** The expertise of the DQC review team will consist of Section Chiefs and subject matter experts or regional technical specialists in the fields of Plan Formulation, NEPA compliance, and Engineering Design and Analysis as well as Real Estate.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of 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 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 project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by

outside experts as appropriate. The ATR team lead will be from outside the home MSC.

a. Products to Undergo ATR.

ATR will be conducted on the Draft Chief's Report (including NEPA and supporting documentation) and Final Report (including NEPA and supporting documentation). Additional ATR of key technical and interim products, MSC-specific milestone documentation, and In-Progress Review (IPR) documentation, if such documentation becomes necessary, should occur depending on the study needs and the requirements of MSC/District Quality Management Plans. Where practicable, technical products that support subsequent analyses will be reviewed prior to being used in the study and may include: surveys & mapping, hydrology & hydraulics, coastal engineering, geotechnical investigations, economic, environmental, cultural, and social inventories, annual damage and benefit estimates, cost estimates, real estate requirements etc.

b. Required ATR Team Expertise.

An ATR Team Leader and eight technical disciplines were determined to be appropriate for review of the products leading to the feasibility report and EA including: plan formulation, economics, environmental resources, coastal engineering, geotechnical engineering, civil engineering, cost engineering and real estate. All should be well versed in the conduct of navigation and coastal storm damage risk reduction studies. In particular, experience in the development and evaluation of user surveys and small boat harbor and small navigation project benefits is essential. Reviewers should be from outside the project district and the review lead should be from outside the project MSC. For this ATR effort, the effort will be managed by SAD.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). For this effort, this individual will be from SAD.
Plan Formulation	The Planning reviewer should be a senior water resources planner with experience in the plan formulation process. The reviewer should be familiar with evaluation of alternative plans for shallow draft navigation and coastal storm damage reduction projects.

Economics	The economics reviewer should be a senior water resource economist with experience in navigation and coastal storm damage reduction projects.
Environmental Resources	The environmental resources reviewer should be a senior NEPA compliance specialist with experience in shallow draft navigation and coastal storm damage reduction projects.
Coastal Engineering	The coastal engineering reviewer should be a senior engineer with experience with coastal inlet navigation and coastal storm damage reduction projects.
Geotechnical Engineering	The geotechnical reviewer should be a senior engineer experienced in geotechnical analyses for coastal inlet navigation and storm damage reduction projects.
Civil Engineering	The civil engineering reviewer should be a senior engineer with experience in coastal inlet navigation and storm damage reduction projects.
Cost Engineering	The cost engineering reviewer should be a senior engineer with experience in coastal inlet navigation and storm damage reduction projects. A separate process and coordination is also required through the Walla Walla District MCX for cost engineering and ATR.
Real Estate	The real estate reviewer should be a senior real estate specialist with experience in navigation and coastal storm damage reduction projects.
Risk Analysis	The risk analysis reviewer will be experienced with performing and presenting risk analyses in accordance with ER 1105-2-101 and other related guidance, including familiarity with how information from the various disciplines involved in the analysis interact and affect the results. This review can be combined with either the Economics or H&H reviews.

c. **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 been 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 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, 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 1110-1-12 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, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. 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 1165-2-214, 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:

(1) 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 1165-2-214.

(2) 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.

b. Decision on IEPR. The Lake Montauk Harbor, New York multipurpose feasibility study is limited in scope in terms of size, cost, impacts and complexity. This project has little risk and would most likely not benefit from IEPR.

c. An exclusion of this feasibility study from Type I IEPR was approved by HQUSACE on 31 July 2013. A decision on Type II IEPR will be made during the design and implementation phase of any recommended and approved project.

Risk Informed Decision:

- The project does not meet the mandatory triggers for Type I IEPR described in Paragraph 11.d.(1) and Appendix D of EC 1165-2-214. Additionally:

1. What are the consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice)?

There are minimal consequences. This project will promote economic efficiency for commercial navigation interests and reduce the present and future risk of coastal storm damages. If in the future such potential benefits are no longer considered viable, the project could be re-examined to modify the future investment of the nation's resources.

2. Are the products likely to contain influential scientific information or be highly influential scientific assessment?

No. No innovative information is expected to result from the study or the potential project.

3. Does the decision document meet any of the possible exclusions described in Paragraph 11.d.(3) and Appendix D of EC 1165-2-214, and if so, how?

No. See below.

4. Is there a significant threat to human life?

No. The project would only reduce the chance of navigation accidents and reduce the risk of damage from coastal storms. Design storm exceedence would not **increase such risks.**

5. Does the estimated cost of the project, including mitigation costs, exceed \$45 million?

No.

6. Has the Governor of the affected State (New York) requested a peer review by independent experts?

No.

7. Has the head of a Federal or state agency charged with reviewing the project study determined that the project is likely to have a significant adverse impact on environmental, cultural, or other resources under the jurisdiction of the agency after implementation of proposed mitigation plans and has he/she requested IEPR?

No. An EIS is not required for this project. Although the project might affect certain species as identified in the Environmental Assessment, the appropriate coordination will be completed under the Endangered Species Act.

8. Is there significant public dispute as to size, nature or effects of the project?

No. The potential for significant public dispute has not been identified.

9. Is there significant public dispute as to economic or environmental cost or benefit of the project?

No. Significant public dispute is not anticipated.

10. Is information based on novel methods, or does the study present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?

No. This project is not complex and the study is not expected to present challenges for interpretation, set precedents, etc.

11. Has the Chief of Engineers identified any other circumstances to determine that Type I IEPR is warranted?

No.

In summary a Type I IEPR is not consider to be warranted. A Type II IEPR/SAR is not currently planned, because at this time it is not anticipated that the project would produce potential hazards which pose a significant threat to human life. However, the need for SAR will be revisited in a follow-on, implementation phase review plan.

b. Products to Undergo Type I IEPR. Not-Applicable

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

d. Documentation of Type I IEPR. Not-Applicable

7. 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.

8. COST ENGINEERING MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering MCX, located in the Walla Walla District. The MCX 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 MCX will also provide the Cost Engineering certification. The RMO is responsible for coordination with the Cost Engineering MCX.

9. MODEL CERTIFICATION AND APPROVAL

- a. 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).
- b. 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 in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
Spreadsheet model	Commonly-used Application that calculates coastal damages to an inventory of structures (including use of AtRisk)	Not certified

The Planning spreadsheet model will undergo an approval as per EC 1105-2-412.

(2) Engineering Models. The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
M2D: a hydrodynamics model	This is a widely-used model. This is a software model that models hydrodynamics, including tides, currents, and sedimentation, within navigation channels.	not certified and not CoP-listed; developed after the Shore Protection Manual
STWave: model of wave climate	This is a widely-used model. This is a software model that takes historic wind, fetch, and wave data to simulate the wave climate along a shoreline and probabilistically predict wave action and surge elevations into the future.	not certified; CoP-preferred
spreadsheet model for storm damages on bulkheads and structures behind them	This is widely used by New York District. This model uses wave equations and assumptions of wave scour from the USACE Shore Protection Model, and wave overtopping equations recommended in USACE EM-1110-2-1614 "Design of Coastal Revetments, Seawalls, and Bulkheads" to simulate failure conditions for bulkheads and wave undermining of roads.	not certified and not CoP-listed, referenced in Shore Protection Manual
EDUNE	This is widely used by New York District. This model calculates erosion and wave climate prediction, and is based on the equilibrium profile theory, as is the Corps model, SBEACH. The erosion prediction is utilized in simulating structure undermining.	not certified and not CoP-listed; developed after the Shore Protection Manual

10. REVIEW SCHEDULES AND COSTS

- a. **ATR Schedule and Cost.** *The estimated schedule for ATR has ATR beginning in Apr 2015. The ATR budget of \$60,000 includes participation of the ATR Lead in milestone conferences and the Civil Works Review Board (CWRB) meeting to address the ATR process and any significant and/or unresolved ATR concerns.*
- b. **Type I IEPR Schedule and Cost.** Not-Applicable
- c. **Model Certification/Approval Schedule and Cost.** The planning spreadsheet model will start model certification process in the 1st Quarter of FY15.

11. PUBLIC PARTICIPATION

There have been and will be opportunities for public comment. Public comments and questions will be made available in the final EA. The EA will be scoped in accordance with regulation.

12. REVIEW PLAN APPROVAL AND UPDATES

The CENAD 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) will 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, will be posted on the Home District's webpage. The latest Review Plan will also be provided to the RMO and home MSC.

13. REVIEW PLAN POINTS OF CONTACT

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

- Nathanael Wales, Plan Formulator, 917-790-8731
- Hibba Wahbeh, NAD, 347-370-4779
- Lawrence Cocchieri, PCX-CSR, 347-370-4571

ATTACHMENT 1: TEAM ROSTERS - PDT

Project Manager	Ronald Pinzon	Ronald.R.Pinzon@usace.army.mil	917-790-8627
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Technical Manager	Jennifer Schmeltzle	<u>Jennifer.L.Schmeltzle@usace.army.mil</u>	917-790-8345
Economist	Johnny Chan	Johnny.C.Chan@usace.army.mil	917-790-8706
Biologist	Howard Ruben	Howard.Ruben@usace.army.mil	917-790-8723
Chief, Environmental Section	Pete Weppler	Peter.M.Weppler@usace.army.mil	917-790-8634
Cultural Specialist	Heather Morgan	Heather.M.Morgan@usace.army.mil	917-790-8730
Real Estate Specialist	David Andersen	<u>David.C.Andersen@usace.army.mil</u>	917-790-8456

ATR Team Members to be designated by the PCX- CSRM; the lead for this effort will be SAD

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

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager

Office Symbol

Date

SIGNATURE

Name

Architect Engineer Project Manager¹

Company, location

Date

SIGNATURE

Name

Review Management Office

Representative

Office Symbol

Date

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

Chief, Engineering Division

Office Symbol

Date

SIGNATURE

Name

Chief, Planning Division

Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
24 Oct. 2013	Update text in accordance with latest template, including the name of the Cost Engineering and ATR Mandatory Center of Expertise	Throughout
24 Oct. 2013	Type of report in accordance with PL113-2 implementation guidance	Paragraph 3a
24 Oct. 2013	Updated the then-pending IEPR exclusion request to state that it was for exclusion from Type I IEPR and that it was approved by HQUSACE	Paragraph 6a
18 Mar. 2014	Updated relevant study schedule	Paragraph 10

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
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
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMC	Risk Management Center
IEPR	Independent External Peer Review	RMO	Review Management Organization
ITR	Independent Technical Review	RTS	Regional Technical Specialist
LRR	Limited Reevaluation Report	SAR	Safety Assurance Review
MSC	Major Subordinate Command	USACE	U.S. Army Corps of Engineers
		WRDA	Water Resources Development Act