DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, U.S. ARMY CORPS OF ENGINEERS
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FORT SHAFTER, HAWAII 96858-5440

CEPOD-PDC (1105)

JUL 26 2022

MEMORANDUM FOR Commander, Honolulu Engineer District (CEPOH-PPC/Cindy Acpal), Building 230, Fort Shafter, HI 96858-5440

SUBJECT: Review Plan Approval for Ofu Coastal Storm Damage Reduction (Section 14), American Samoa, Feasibility Study

1. References:

a. Engineering Regulation 1165-2-217, Civil Works Review Policy, 1 May 21.

b. Review Plan for Ofu Coastal Storm Damage Reduction (Section 14) (Encl).

2. The Pacific Ocean Division is the lead office to execute this Review Plan. The Review Plan does not include an Independent External Peer Review or Safety Assurance Review.

3. I hereby approve this Review Plan, which is subject to change as circumstances require, consistent with work product development under the Project Delivery Business Process. Subsequent revisions to this Review Plan or its execution due to significant changes in the study/scope or level of review will require Division Commander written approval.

4. POC is Mr. Russell Iwamura, Team Leader for Planning and Policy, Pacific Ocean Division, at 808-835-4625 or at Russell.K.Iwamura@usace.army.mil.

Encl

KIRK E. GIBBS
Brigadier General, USA
Commanding

REVIEW PLAN

OFU COASTAL STORM DAMAGE REDUCTION, AMERICAN SAMOA

Continuing Authorities Program (CAP) Section 14

Feasibility Study

Honolulu District

MSC Approval Date: 26 July 2022
Last Revision Date: None

US Army Corps
of Engineers ®

PLANNING DECISION DOCUMENT REVIEW PLAN
July 2022

OVERVIEW

Project Name: Ofu Coastal Storm Damage Reduction, American Samoa
(Please note that this is a Section 14 Shoreline Erosion Protection project)
P2 Number: 484673

Decision Document Type: Feasibility Report

Project Business Line: Emergency Shoreline Protection

District: Honolulu District (POH)
District Contact: Project Manager, 808-835-4259

Major Subordinate Command (MSC): Pacific Ocean Division (POD)
MSC Contact: CAP Manager, 808-835-4621

Review Management Organization (RMO): POD
RMO Contact: Chief of Planning & Policy, 808-835-4625
Note: The RMO is the MSC for CAP projects not requiring or expected to require SAR.

Key Review Plan Dates

Date of RMO Endorsement of Review Plan: 26 July 2022
Date of MSC Approval of Review Plan: 26 July 2022
Date of IEPR Exclusion Approval: N/A
Has the Review Plan changed since RMO Endorsement? N/A
Date of Last Review Plan Revision: N/A
Date of Review Plan Web Posting: 27 July 2022
Date of Congressional Notifications: N/A

Milestones and Other Key Dates

	Scheduled	Actual	Complete
FCSA Execution:	11 MAR 2022	11 MAR 2022	Yes
Tentatively Selected Plan:	17 NOV 2022		No
Release Draft Decision Document:	17 JAN 2023		No
Concurrent Review Starts (ATR, NEPA, Policy, Public Comment Period):	18 JAN 2023		No
Final Report Transmittal:	4 AUG 2023		No
Final Decision Document Approval:	17 NOV 2023		No

Project Fact Sheet
July 2022

Project Name: Ofu Coastal Storm Damage Reduction, American Samoa
(Please note that this is a Section 14 Shoreline Erosion Protection project)

Location: Ofu, American Samoa

Authority: Section 14 of the 1946 Flood Control Act, as amended

Sponsor: American Samoa Government represented by the Department of Port Administration

Type of Study: Feasibility

SMART Planning Status: This CAP study is on a two year timeline. No policy waivers are anticipated at this time.

Project Area: American Samoa is located in the mid-South Pacific Ocean, a part of the Samoan Islands archipelago in Polynesia approximately 2,300 miles southwest of Hawaii. The island of Ofu is in the Manu'a Island group of American Samoa, located about 66 miles east of Tutuila Island.

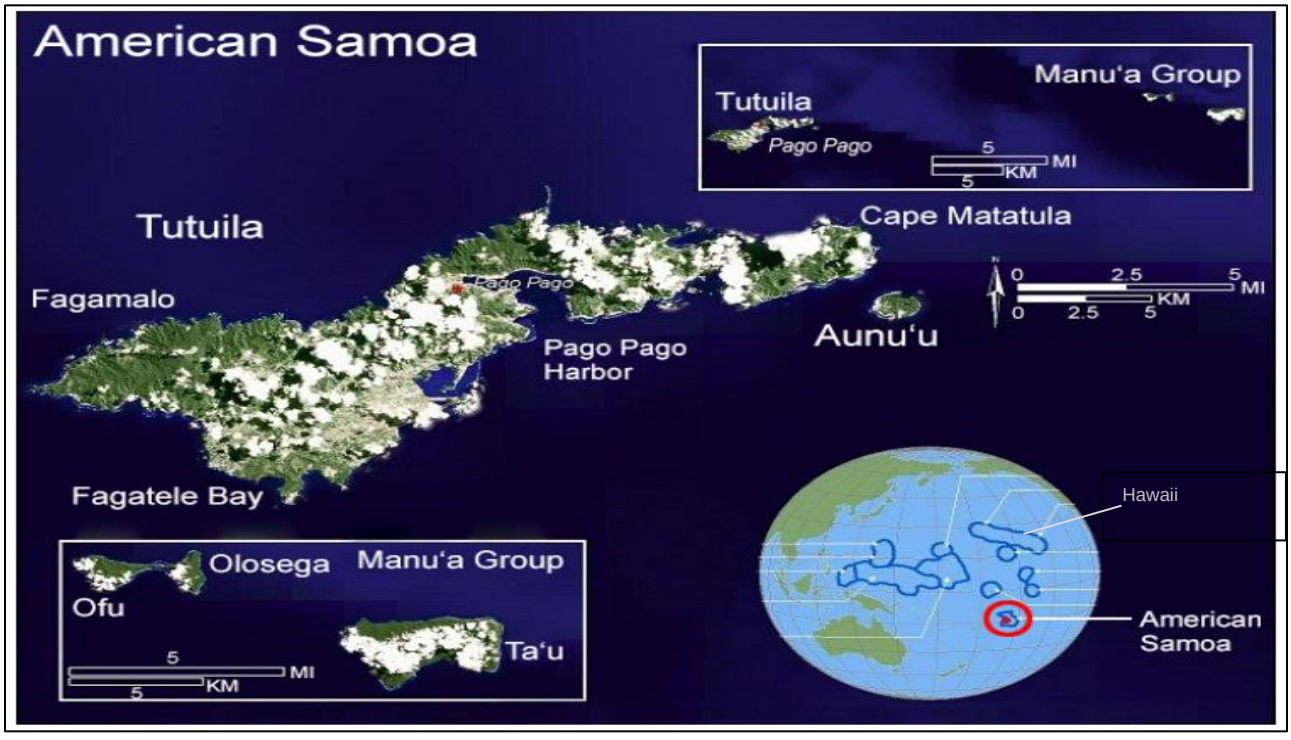

Figure 1: Territory of American Samoa and location maps

Ofu Airport (study area) is located on the southern coast of Ofu Island. The 18-acre public airport is operated by the Department of Port Administration (DPA) of the

American Samoa Government on property leased from local families. The airport is intended to serve the aviation needs of Ofu and Olosega islands. American Samoa is a U.S. territory represented by a delegate in the U.S. Congress. The American Samoa delegate at the time of this report is Ms. Uifa'atali Amata Coleman Radewagen (R).

Problem Statement: The low-lying coastline fronting Ofu Airport is subject to frequent storm and wave attack. The west end of the runway shoreline is progressively eroding with the coastline receding further into Ofu Airport's Runway Safety Area (RSA). This coastline erosion was accelerated during Tropical Storm Evans in 2012 and again more recently by Tropical Storm Gita that devastated the islands in 2018. Future sea level rise will continue to exacerbate this condition and cause erosion and the resulting damage to accelerate. Continual erosion will result in the imminent closure of the runway.

Federal Interest: The Federal Interest Determination (FID) was approved by POD on 4 August 2021 and demonstrated federal interest for conducting shoreline protection measures at Ofu Airport, American Samoa. The Feasibility Cost Share Agreement (FCSA) was executed with the non-Federal sponsor on 11 March 2022.

The NFS will provide Work-In-Kind (WIK), as described in the FCSA, to fulfill their total feasibility study cost-sharing requirement estimated at $20,000. Proposed WIK includes project management support, participation in PDT and agency meetings, research and investigation, site visits for investigation, coordination with American Samoa government agencies, sponsor review of deliverables, and public engagement with stakeholders and the community. A letter from the NFS, dated 8 November 2021, proposes $24,245.59 in WIK efforts to cover the $20,000 cost share; the NFS understands that in order to be creditable, WIK must be integral to the study and that WIK credits may not exceed the non-Federal cost share.

The feasibility study will identify the least cost alternative for stabilizing the shoreline on the west end of the airport that is both effective and environmentally acceptable. The identified plan will have federal interest if the cost to construct the shoreline protection measure is less than the cost to relocate the airport.

Inventory and Forecast: In the existing and future without project (FWOP) conditions, the Ofu Airport runway safety area (RSA) will continue to sustain significant erosion damage from direct wave impact and swell energy from storm events. Climate change and sea level rise will result in more extreme and frequent wave damage, further accelerating coastal erosion rates. Loss of the RSA will lead to the imminent risk of closure of Ofu Airport, cutting off the only means of air transportation for residents of both Ofu and Olosega islands. Air travel for residents of these islands is essential for emergency access to healthcare, medicine, food, and other critical supplies. Elimination of the only airport serving these two islands will increase the risk to life and safety of the local population.

In the future with project (FWP) conditions, the Ofu Airport RSA is stabilized and the airport remains operational, allowing for continued access to emergency services via air travel to the main island of Tutuila. Measures considered for emergency shoreline protection include, but are not limited to, rock and tribar revetments, concrete rubble masonry (CRM) wall, concrete-capped sheet pile wall, and beach fill. These measures will be formulated into alternatives and further evaluated through the feasibility study process.

Risk Identification: None of the risks identified pose a significant threat to human life associated with aspects of the study or failure of the proposed project. Consistent with ER 1165-2-217, Mr. Todd Barnes, POH Chief of Engineering and Construction, concurs with the assessment that there is not a significant threat to human life associated with aspects of the study or failure of the proposed project. The primary risk identified is that the sandy beach near the project area is a known nesting site for the Federally endangered hawksbill turtle. In addition, the proposed action area also includes the Ofu Va'oto Marine Park, classified as a territorial nature preserve, which supports a highly diverse ecosystem that includes corals, marine invertebrates, algae, and fish. Close coordination with the Federal Aviation Agency (FAA) will be required to ensure that design is within FAA guidelines and regulations, as the study area is located directly adjacent to an active runway.

DOCUMENTATION OF RISKS AND ISSUES

1. PURPOSE

Purpose: This Review Plan defines the scope and level of peer review for the Ofu Coastal Storm Damage Reduction, Section 14 project products. Products expected for review include a project Factsheet (located in the section above); and a Feasibility Report including appendices.

Section 14 of the Flood Control Act of 1946, as amended, authorizes the US Army Corps of Engineers (USACE) to study, design, and construct emergency streambank and shoreline works used to protect public services open on equal terms to all members of the public, including (but not limited to) streets, bridges, schools, water and sewer lines, National Register sites, and churches from damage or loss by natural erosion. This is a Continuing Authorities Program (CAP) which focuses on water resource related projects of relatively smaller scope, cost and complexity. Unlike the traditional Corps' civil works projects that are of wider scope and complexity, CAP is a delegated authority to plan, design, and construct certain types of water resource and environmental restoration projects without specific Congressional authorization.

Additional Information on this program can be found in Engineering Pamphlet (EP) 1105-2-58, Planning Continuing Authorities Program, 1 March 2019.

2. FACTORS AFFECTING THE LEVELS AND SCOPES OF REVIEWS

Mandatory IEPR Triggers.

A project may require an IEPR if any of the three mandatory conditions in WRDA 2007 Sec 2034, as amended, are triggered:

- Is the estimated total project cost, including mitigation, greater than $200 million?
  No. This CAP study has a federal funding limit of $5 million. The estimated total project costs identified in the 2021 Federal Interest Determination Report were approximately $4.5 million.

- Has the Governor of an affected state requested a peer review by independent experts?
  No. There has been no request from the Governor of American Samoa for a peer review by independent experts, and such a request is not anticipated.

- Has the Chief of Engineers determined the project study is controversial due to significant public dispute over the size, nature or effects of the project or the economic or environmental costs or benefits of the project (including but not limited to projects requiring an Environmental Impact Statement)?

No. The Chief of Engineers has not determined the project study as controversial due to significant public dispute over the size, nature or effects of the project, nor the economic or environmental costs or benefits of the project.

While none of the three mandatory triggers for IEPR have been met, the MSC Commander retains the discretion to conduct IEPR based on a risk-informed assessment of the expected contribution of IEPR to the project.

Discretionary Decision/ Risk Informed Assessment

When none of the three mandatory triggers for IEPR are met, MSC Commanders have the discretion to conduct IEPR based on a risk-informed assessment of the expected contribution of IEPR to the project.

Discretionary Decision

IEPR is discretionary when the head of a federal or state agency charged with reviewing the project study determines 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 he/she requests an IEPR. No such request has been made with respect to this study.

Risk-Informed Assessment

The PDT does not recommend an IEPR based on the Risk-Informed Decision Making (RIDM) considerations outlined in ER 1165-2-217, para. 6.5.2, as an IEPR would not substantially benefit or add value to the project study. The study does not address significant life safety concerns, is not burdened by complex challenges, is not controversial, is not expected to utilize novel or precedent setting methods or models, is unlikely to change prevailing practices, does not have significant interagency interest, and does not have significant economic, environmental, or social effects to the Nation. This study examines a small stretch of remote beach that is restricted to public access since it is adjacent to an active runway. Each of the management measures considered during the federal interest determination are relatively simple in design and construction methods and have been recommended and implemented by USACE on other coastal erosion protection projects.

Scope of Review. The study will produce a feasibility report (including appendices) with an integrated NEPA document. The draft report will undergo an initial District Quality Control (DQC) review, followed by a concurrent review that includes Agency Technical Review (ATR), policy and legal compliance (P&LC) review, and public review. After the concurrent review comments are addressed, the final report will be prepared. The final report will undergo DQC, targeted ATR, and MSC Quality Assurance (QA) and P&LC reviews before the final report is approved. The various reviews are detailed in Table 1. Factors affecting the risk informed decisions on the appropriate levels of review are discussed below.

- Will the study likely be challenging?
  No. The study consists of a range of shoreline erosion measures commonly implemented in the region. Accordingly, the study does not have any significant technical, institutional, or social challenges. The Corps has conducted technical evaluations in American Samoa for several decades and has experience implementing alternatives in the region under different Civil Works authorities. Social challenges are primarily related to the logistical challenges of conducting a study in a remote region. However, the PDT has established strong working relationships with the sponsor, agencies, and stakeholders.

- Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.
  A preliminary list of risks has been identified by the PDT, as noted in the Risk Identification section above. With the information currently available, the magnitude of each of these identified risks are anticipated to be low. However, we will further evaluate these risks as we progress into the study. Additionally, a risk register will be developed for this study.

- Is the project likely to be justified by life safety or is the study or project likely to involve significant life safety issues?
  No. While life safety is a consideration and may provide additional benefits, the project is expected to have justification based on economic benefits (specifically for CAP Section 14 projects, the cost to protect must be less than the cost to relocate the public facility that is in imminent danger of failure). Stabilized shoreline conditions fronting the Ofu Airport runway will decrease threats to human life and safety by reducing the risk of loss of public infrastructure.

- Is the information in the decision document or anticipated project design likely to be based on novel methods, involve 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?
  No. Project design and implementation techniques will be based on similar shoreline protection projects completed by POH and are unlikely to contain precedent-setting or unique methods and techniques. Prevailing practices are unlikely to change.

- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule?
  No. This is a small project in scope and complexity and is unlikely to require redundancy, resiliency, and/or robustness.

- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources?

No. This project is not expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources. This will be evaluated during feasibility.

- Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?
  No. This project is not expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures. Based on review of existing information, there is a potential for minimal adverse impacts, but these will be evaluated further during the feasibility phase. As detailed in the risk identification section above, nearshore areas of the study area support species of marine corals, invertebrates, algae, fish, and sea turtles. Any effects of the project to these species will be evaluated and appropriate avoidance and minimization measures will be developed in advance coordination with the appropriate resource agencies. The placement of fill material in the water of the United States, including wetlands, would require analysis under Section 404 of the Clean Water Act (CWA).

- Is the project expected to have, before mitigation measures, more than a negligible adverse impact on an endangered or threatened species or their designated critical habitat?
  No. With the information that is available at this time, this project is not expected to have a more than negligible adverse impact on an endangered or threatened species or their designated critical habitat. While it is not expected, there is still a potential for adverse impact to the Federally endangered Hawksbill turtle. This has been identified as a risk and will be evaluated further during the Feasibility phase. Should any impacts be identified, appropriate avoidance and minimization measures will be developed in advance coordination with the appropriate resource agencies.

3. REVIEW EXECUTION PLAN

This section describes each level of review to be conducted. Based upon the factors discussed in Section 2, this study will undergo the following types of reviews:

District Quality Control. All decision documents and accompanying components (including data, analyses, environmental compliance documents, etc.) will undergo DQC. This internal review process covers basic science and engineering work products. It fulfils the project quality requirements of the Project Management Plan.

Agency Technical Review. ATR will be performed by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. These teams will be comprised of certified USACE personnel. The ATR team lead will be from outside the home MSC.

Cost Engineering Review. The Cost Engineering Mandatory of Expertise (MCX) will review and certify project costs and may delegate the final cost certification at its

discretion. The Director's Policy Memo dated 3 Sep 20 delegates the final cost certification and associated documentation for CAP projects to the cost engineering reviewer assigned to the ATR team. The RMO is responsible for coordinating with the MCX for review assignments and ATR of cost products.

Model Review and Approval/Certification. EP 1105-2-58 specifies that approval of planning models is not required for CAP projects, but planners should utilize certified models if they are available. The ATR certification package for CAP ATR reviews must include an explicit statement that says that models and analyses are used appropriately and in a manner that is compliant with Corps policy, and they are theoretically sound, computationally accurate, and transparent. ATR certification packages also must address any limitations of applied models or their use.

Policy and Legal Compliance Review. All decision documents will be reviewed for compliance with law and policy. ER 1105-2-100, Appendix H, and Director's Policy Memorandum 2019-01 provide guidance on policy and legal compliance reviews. These reviews culminate in determinations that report recommendations 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.

Quality Assurance Review: POD, as the RMO, has responsibility for Quality Assurance (QA). QA includes verifying that the overall project quality control activities are effective in producing a work product that meets the desired end quality. QA activities include reviewing work performed by the District (including implementation of the DQC and ATR processes) and the ATR Team.

Public Review. The district will post the Review Plan and approval memo on the district internet site. Public comment on the adequacy of the Review Plans will be accepted and considered. Additional public review will occur when the report and environmental compliance document(s) are released for public and agency comment.

Table 1 provides the schedules and costs for reviews. The specific expertise required for the teams are identified in later subsections of this plan covering each review. These subsections also identify requirements, special reporting provisions, and sources of more information.

Table 1: Schedule and Costs of Reviews

Product(s) to undergo Review	Review Level	Start Date	End Date	Cost	Complete
Draft Feasibility Report & Appendices / EA	*District Quality Control*	*12 December 2022*	*12 January 2023*	*$10,000*	*No*
	POH Policy and Legal Review	*12 December 2022*	*12 January 2023*	*N/A*	*No*
	Agency Technical Review	*18 January 2023*	*1 March 2023*	*$15,000*	*No*
	MSC QA & Policy & Legal Review	*18 January 2023*	*1 March 2023*	*N/A*	*No*
	Public Review & Comment Period	*18 January 2023*	*1 March 2023*	*N/A*	*No*
Final Feasibility Report & Appendices / EA	*District Quality Control*	*31 May 2023*	*15 June 2023*	*$5,000*	*No*
	POH Policy and Legal Review	*16 June 2023*	*29 June 2023*	*N/A*	*No*
	Targeted Agency Technical Review	*16 June 2023*	*29 June 2023*	*$5,000*	*No*
	MSC QA & Policy & Legal Review	*30 June 2023*	*21 July 2023*	*N/A*	*No*

a. DISTRICT QUALITY CONTROL

The home district will manage DQC and will appoint a DQC Lead to manage the local review (see ER 1165-2-217, Chapter 4). Table 2 identifies the required expertise for the DQC team. The DQC Team members should not be involved in the production of any of the products reviewed.

Table 2: Required DQC Expertise

DQC Team Disciplines	Expertise Required
DQC Lead	A senior professional with extensive experience preparing Civil Works decision documents and conducting DQC. The lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Planning	A senior water resources planner with experience in Section 14 CAP studies, specifically, with least-cost alternative plan evaluation and selection.
Environmental Resources	Expertise in evaluating the impacts associated with shoreline erosion risk. Should also be experienced with environmental coordination, National Environmental Policy Act (NEPA) requirements, Endangered Species Act (ESA) requirements, and the unique needs and lifestyles of small communities.
Coastal Engineering	Expert in the field of coastal hydraulics and have a thorough understanding of analyses of cross-

	sections, wave modeling and shoreline measures (i.e. seawalls). A registered, professional engineer is recommended.
Geotechnical Engineer	Experienced in geotechnical investigation practices including drilling, soil classification and seawall construction measures. A registered, professional engineer is recommended.
Cost Engineering	Familiar with cost estimating using the Microcomputer Aided Cost Engineering System (MCACES) model and preparation of an MII Cost Estimate. The reviewer will be Certified Cost Technician, Certified Cost Consultant, or Certified Cost Engineer.
Real Estate	A real estate specialist with experience in developing a Real Estate Plan, non-Federal sponsor capabilities assessment, and Appraisal for Section 14 or similar studies.
Climate Preparedness and Resilience	Experienced in USACE climate preparedness and resilience policy and guidance.
Office of Counsel	Experienced attorney with expertise reviewing Civil Works Decision documents to ensure they are legally sufficient and compliant with existing laws, regulations, and USACE policies.

Documentation of DQC. Quality Control will be performed continuously. A specific certification of DQC completion will be prepared at the draft and final report stages. Documentation of DQC will follow the District Quality Manual and the MSC Quality Management Plan. Dr. Checks will not be used for documentation of DQC comments, as long as comments are documented with the 4-part comment structure, compiled, and submitted with the DQC certification. An example DQC Certification statement is provided in ER 1165-2-217, Appendix D.

Documentation of completed DQC will be provided to POD (as the RMO) and ATR Team leader. Documentation available at the time of ATR will be made available to the ATR Team. The team will examine DQC records and comment in the ATR report on the adequacy of the DQC effort.

b. AGENCY TECHNICAL REVIEW

The ATR will assess whether the analyses are technically correct and comply with guidance, and that documents explain the analyses and results in a clear manner. POD will manage the ATR. The review will be conducted by an ATR Team whose members are certified to perform reviews. Lists of certified reviewers are maintained by the various technical Communities of Practice (see ER 1165-2-217, Chapter 5.5.3). Table 3 identifies the disciplines and required expertise for this ATR Team (also see Attachment 1 - the ATR Team roster. Per ER 1165-2-217, para. 3.6.2.10, projects with significant life safety risks may warrant the necessity of a site visit for the review team. As summarized in the Risk Identification paragraph above, the POH Chief of Engineering & Construction has

determined that there is not a significant threat to human life associated with aspects of the study or failure of the proposed project. Therefore, a site visit will not be required for members of the ATR team.

Table 3: Required ATR Team Expertise

ATR Team Disciplines	Expertise Required
ATR Lead (the ATR Lead should be from outside of the home MSC)	A senior professional with extensive experience preparing Civil Works decision documents and conducting ATR. The lead should have the skills to manage a virtual team through an ATR. The lead may serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Planning	A senior water resources planner with experience in Section 14 CAP studies, specifically, with least-cost alternative plan evaluation and selection.
Environmental Resources	Expertise in evaluating the impacts associated with shoreline erosion risk. Should also be experienced with environmental coordination, National Environmental Policy Act (NEPA) requirements, Endangered Species Act (ESA) requirements, and the unique needs and lifestyles of small communities.
Coastal Engineering	Expert in the field of coastal hydraulics and have a thorough understanding of analyses of cross-sections, wave modeling and shoreline measures (i.e. seawalls). Experience in the evaluation and adaptation of climate change. A registered, professional engineer is recommended.
Geotechnical Engineer	Experienced in geotechnical investigation practices including drilling, soil classification and seawall construction measures. A registered, professional engineer is recommended.
Cost Engineering	Familiar with cost estimating using the Microcomputer Aided Cost Engineering System (MCACES) model and preparation of an MII Cost Estimate. The reviewer will be Certified Cost Technician, Certified Cost Consultant, or Certified Cost Engineer.
Real Estate	Experienced in Federal Civil Works real estate law, policy, and guidance. Experienced in development of Real Estate Plans for Civil Works studies, particularly in regard to property acquisition.
Climate Preparedness and Resilience	A member of the Climate Preparedness and Resiliency Community of Practice will participate in the ATR review.
Risk and Uncertainty	A subject matter expert in multi-discipline flood risk analysis to ensure consistent and appropriate identification, analysis, and written communication of risk and uncertainty.

Documentation of ATR. DrChecks will be used to document all ATR comments, responses, and resolutions. Comments should be limited to those needed to ensure product adequacy. All members of the ATR team will use the four part comment structure (see ER 1165-2-217, Chapter 5). If a concern cannot be resolved by the ATR team and PDT, it will be elevated to the vertical team to resolve using the issue resolution process in ER 1165-2-217, chapter 5.9. Concerns will be closed in DrChecks by noting the concern has been elevated. The ATR Lead will prepare a Statement of Technical Review (see ER 1165-2-217, chapter 5.11 and Appendix D), for the draft and final reports, certifying that review issues have been resolved or elevated. ATR will be certified when all concerns are resolved or referred to the vertical team and the ATR documentation is complete.

c. INDEPENDENT EXTERNAL PEER REVIEW

As detailed in Paragraph 2 above, the mandatory triggers for IEPR have not been met and no requests for IEPR have been submitted by federal or state agencies. Based on this assessment and the RIDM considerations outlined in ER 1165-2-217 para. 6.5.2, the PDT does not recommend an IEPR. The MSC Commander maintains the discretionary authority to revisit the decision to conduct an IEPR if the head of a federal or state agency charged with reviewing the project study determines 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 he/she requests an IEPR.

d. SAFETY ASSURANCE REVIEW

SAR is the most independent level of review for implementation documents or other work products 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 of experts outside USACE is warranted. The purpose of SAR is to have external panels assess the critical decisions and criteria of design or construction activities prior to initiating physical construction and periodically thereafter until construction activities are completed.

Decision on Safety Assurance Review.

Per provisions in ER 1165-2-217, SAR is completed for implementation documents for PED and construction activities for projects where potential hazards pose a significant threat to human life (public safety). The POH Chief of Engineering and Construction has assessed that there is not a significant threat to human life associated with aspects of the study or failure of the proposed project, and therefore SAR is not anticipated to be required. Following completion of the Feasibility Study a new Review Plan will be developed for the Design & Implementation (D&I) phase. The D&I Review Plan will confirm the determination whether SAR will be needed in the next phase of the study.

e. MODEL CERTIFICATION OR APPROVAL

As described in Section 3, EP 1105-2-58 specifies that approval of planning models is not required for CAP projects. It is not anticipated that any planning models will be utilized for the study. The following engineering models will be used to develop the decision document:

Table 4: Engineering Models

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
Microcomputer Aided Cost Engineering System (MCACES) 2nd Generation (MII)	The MCACES MII construction cost estimating software, developed by Building Systems Design, Inc., is a tool used by cost engineers to develop and prepare all USACE Civil Works cost estimates. Using the features in this system, cost estimates are prepared uniformly allowing cost engineering throughout USACE to function as one virtual cost engineering team.	Cost Engineering MCX Required Model
CMS-Wave	The Coastal Modeling System (CMS) is an integrated 2D numerical modeling system for simulating waves, currents, water levels, sediment transport, and morphology changes along the coast. It will be used to evaluate the design wave conditions.	HH&C CoP Preferred Model

The responsible use of well-known and proven USACE developed and commercial engineering software will continue. The professional practice of documenting the application of the software and modeling results will be followed. The USACE Scientific and Engineering Technology Initiative has identified many engineering models as preferred or acceptable for use in studies. These models should be used when 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.

f. POLICY AND LEGAL COMPLIANCE REVIEW

Policy and legal compliance reviews for draft and final planning decision documents have been delegated to the MSC (see Director's Policy Memorandum 2019-01).
The P&LC review team is identified by the POD Chief of Planning and Policy for CAP studies. The team is identified in Attachment 1 of this Review Plan. The makeup of the P&LC review team will be drawn from POD, the Planning Centers of Expertise, and other review resources as needed.

- The P&LC review team will be invited to participate in key meetings during the development of decision documents as well as Milestone meetings. These engagements may include In-Progress Reviews, Issue Resolution Conferences, or other vertical team meetings plus the milestone events.

- The input from the P&LC review team will be documented in a Memorandum for the Record (MFR) produced for each engagement with the team. The MFR will be distributed to all meeting participants.

- In addition, teams may choose to capture some of the P&LC review input in a risk register if appropriate. These items should be highlighted at future meetings until the issues are resolved. Any key decisions on how to address risk or other considerations will be documented in an MFR.

g. PUBLIC POSTING INFORMATION PER ER 1165-2-217

As required by ER 1165-2-217, the approved Review Plan will be posted on the District public website (https://www.poh.usace.army.mil/Missions/Civil-Works/Project-Review-Plans/). There is no formal comment period or set timeframe for the opportunity for public comment. When comments are received, the PDT will consider them and decide if revisions are necessary

h. REVIEW PLAN APPROVALS AND UPDATES

The POD Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving the POH and POD) regarding the appropriate scope, level of review, and endorsement by POD. The Review Plan is a living document and should be updated in accordance with ER 1165-2-217. All changes made to the approved Review Plan will be documented. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the District's webpage and linked to the HQUSACE webpage.

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