DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NORTH ATLANTIC DIVISION
FORT HAMILTON MILITARY COMMUNITY
302 JOHN WARREN AVENUE
BROOKLYN, NY 11252-6700

CENAD-PD-P (1105-2-10c)

3 June 2024

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, Norfolk District, Fort Norfolk 803 Front Street, Norfolk, VA 23510-1011

SUBJECT: Miami-Dade Back Bay, Florida Coastal Storm Risk Management Feasibility Mega Study

1. Reference Memorandum, CENAO-EX dated 1 February 2024, Subject: Miami-Dade Back Bay, Florida Coastal Storm Risk Management Feasibility Mega Study.

2. The Coastal Storm Risk Management Planning Center of Expertise of the North Atlantic Division (NAD) is the lead office to execute the referenced Review Plan. The Review Plan does not include Independent External Peer Review, as it is not required.

3. The enclosed Review Plan is approved for execution and is subject to change as study circumstances require, consistent with study development under the Project Delivery Business Process. Subsequent revisions to this Review Plan or its execution require new written approval from NAD.

4. The point of contact is Mr. Larry Cocchieri, NAD Planning Program Manager at 347-370-4571 or Lawrence.J.Cocchieri@usace.army.mil.

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Encl

JOHN P. LLOYD
Brigadier General, USA
Commanding

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

CENAO-EX (800C) 1 February 2024

MEMORANDUM FOR Commanding General, U.S. Army Corps of Engineers, North Atlantic Division (CENAD-PD-X /Lawrence Cocchieri), 301 John Warren Avenue, Fort Hamilton Community, Brooklyn, NY 11252-6700

SUBJECT: Submission of the Review Plan for Miami-Dade County Back Bay Coastal Storm Risk Management Feasibility Mega Study (2024 Chief's Report) for Approval

1. Reference: ER 1165-2-217, Review Policy for Civil Works, 1 May 2021.

2. Background: The Norfolk District developed the enclosed Review Plan, dated January 2024, for the Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Study. The Review Plan has been reviewed for technical sufficiency and policy compliance by the National Planning Center of Expertise for Coastal Storm Risk Management (PCX-CSRM). The PCX-CSRM's endorsement is provided in the enclosed memorandum dated 30 January 2024.

3. Request: The Norfolk District requests that the North Atlantic Division approve the enclosed Review Plan.

4. Point of Contact: Questions should be directed to Abbegail Preddy, Project Manager. She may be reached at abbegail.m.preddy@usace.army.mil or at (757) 201–7693.

Brian P. Hallberg

BRIAN P. HALLBERG, PMP
COL, EN
Commanding

2 Encls
1. Review Plan
2. PCX Endorsement

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NORTH ATLANTIC DIVISION
FORT HAMILTON MILITARY COMMUNITY
302 JOHN WARREN AVENUE
BROOKLYN, NY 11252-6700

CENAD-PD-P (1105-2-10c) 30 Jan 2024

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, Jacksonville District 701 San Marco Blvd. Jacksonville, Florida 32207-8175

SUBJECT: Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Mega Study (2024 Chief's Report)

1. The National Planning Center of Expertise for Coastal Storm Risk Management (PCX-CSRM) has reviewed the Review Plan (RP) for the subject study which is targeting a 2024 Chief's Report. We concur that the RP complies with current peer review policy requirements contained in ER 1165-2-217, entitled "Civil Works Review Policy".

2. The review was performed by our PCX-CSRM RP Review Team.

3. PCX-CSRM has no objection to RP approval by the South Atlantic Division.

4. Thank you for the opportunity to assist in the preparation of the RP. PCX-CSRM is prepared to lead the Agency Technical Review for the subject study and will continue to coordinate with the PDT. For further information, please contact me at 347-370-4571.

LARRY COCCHIERI
Deputy, National Planning Center of Expertise for Coastal Storm Risk Management

Review Plan

May 2024

1. Project Summary

Project Name: Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Mega Study
Location: Miami-Dade County, Florida
P2 Number: 476677

Decision and Environmental Compliance Document Type: Integrated Feasibility Report and Environmental Assessment (IFR/EA)

Congressional Authorization Required: Yes
Project Purpose: Single-Purpose Coastal Storm Risk Management
Non-Federal Sponsor: Miami-Dade County

Points of Public Contact for Questions/Comments on Review Plan:

District: Norfolk District (executing district) and Jacksonville District (supported district)
District Contact: Project Manager (Norfolk): (757) 993-0874
PM-Forward (Jacksonville): (904) 412-4752

Major Subordinate Command (MSC): North Atlantic Division
MSC Contact: Senior Coastal Planner - (347) 370-4591

Review Management Organization (RMO): Planning Center of Expertise for Coastal Storm Risk Management (PCX-CSRM)
RMO Contact: Deputy Director, PCX-CSRM - (347) 370-4571

Key Review Plan Dates

Date of RMO Endorsement of Review Plan	Pending
Date of MSC Approval of Review Plan	Pending
Date of IEPR Exclusion Approval	Pending
Has the Review Plan changed since RMO Endorsement?	N/A
Date of Last Review Plan Revision	N/A
Date of Review Plan Web Posting	Pending

Milestones and Other Key Dates[1]

	Scheduled	Actual
FCSA Execution		10/09/18
OASA(CW) Approval Memo for Study Time and Funds Exception		08/02/22
Alternatives Milestone Meeting (AMM)[2]	N/A	
Go/No Go Milestone Briefing with OASA(CW)		08/18/23
Signed HQ Study Guidance Received for 2024 Chief's Report		12/05/23
Tentatively Selected Plan (TSP) Milestone[3]	N/A	
Release Draft Report to Public		04/23/24
Agency Decision Milestone (ADM)[3]	N/A	
Final Report Transmittal to HQUSACE	06/18/24	
State & Agency Briefing	07/12/24	
Chief's Report	08/28/24	

[1]Schedule is reflective of the Office of the Assistant Secretary of the Army for Civil Works (OASA(CW)) direction following the Go/No Go Milestone Briefing on August 18, 2023 and the updated HQ/OASA(CW) guidance received on November 7, 2023. This guidance directs the PDT to complete a Chief's Report for potential 2024 Water Resources Development Act (WRDA) authorization, which will be continued with additional feasibility study and Chief's Report towards a potential programmatic 2026 WRDA authorization. A separate Review Plan will be developed in support of the 2026 Chief's Report.
[2]Alternative Milestone Meetings are not a requirement for feasibility studies that previously had a successful AMM and received a policy exception for additional study resources to reengage in plan formulation. While the Go/No Go Milestone was not formally regarded as an AMM, the intent of the Go/No Go was similar to that of a typical AMM in that it was a formal presentation by both USACE and the Nonfederal Sponsor to USACE leadership of scoping and formulation efforts that contributed to proposed draft alternatives.
[3]TSP and ADM Milestones are shown as N/A because of the compressed schedule to achieve a 2024 Chief's Report per the signed HQ Study Guidance. Additionally, the PDT is engaging in biweekly In Progress Reviews (IPRs) with USACE HQ and OASA(CW) to maintain vertical alignment, provide status updates, and elevate policy issues or risks for the duration of the 2024 Chief's Report effort. The PDT has requested from the vertical team that these IPRs replace the requirement for milestone meetings as they satisfy the intent of maintaining vertical alignment.

2. References

Engineer Regulation 1165-2-217 – Water Resources Policies and Authorities – Civil Works Review Policy, 1 May 2021.

Engineer Circular 1105-2-412 – Planning – Assuring Quality of Planning Models, 31 March 2011.

Planning Bulletin 2013-02, Subject: Assuring Quality of Planning Models (EC 1105-2-412), 31 March 2013.

Office of Management and Budget, Final Information Quality Bulletin for Peer Review, Federal Register Vol. 70, No. 10, January 14, 2005, pp 2664-267

The online USACE Planning Community Toolbox provides more review reference information at: https://planning.erdc.dren.mil/toolbox/current.cfm?Title=Peer%20Review&ThisPage=Peer&Side=No.

3. Review Execution Plan

The general plan for executing all required independent reviews is outlined in the following two tables.

Table 1 lists each study product to be reviewed. The table provides the schedules and costs for the anticipated reviews. Teams also determine whether a site visit will be needed to support each review. The decisions about site visits are documented in the table. As the review plan is updated the team will note each review that has been completed.

Table 2 identifies the specific expertise and role required for the members of each review team. The table identifies the technical disciplines and expertise required for members of review teams. In most cases the team members will be senior professionals in their respective fields. In general, the technical disciplines identified for a District Quality Control (DQC) team will be needed for an Agency Technical Review (ATR) team. Each ATR team member will be certified to conduct ATR by their community of practice. The table is set up to concisely identify common types of expertise that may be applicable to one or more of the reviews needed for a study.

Table 1: Schedule and Costs of Reviews

Product to undergo Review	Review Level	Site Visit	Start Date	End Date	Cost	Complete
Draft Integrated Feasibility Report and Environmental Assessment (IFR/EA)	District Quality Control (DQC)	No	02/05/2024	03/11/2024	$60,000	No
Draft IFR/EA	Agency Technical Review (ATR)	No	03/11/2024	04/08/2024	$50,000	No
Draft IFR/EA	Targeted ATR of G2CRM	No	03/11/2024	04/08/2024	$15,000	No
Draft IFR/EA	Public Review	Yes	04/12/2024	05/13/2024	n/a	No
Draft IFR/EA	Policy and Legal Compliance Review[1]	No	04/12/2024	05/13/2024	n/a	No
Final IFR/EA	Policy and Legal Compliance Review[1]	No	06/20/2024	06/28/2024	n/a	No

[1]Corresponds to comment period only; does not include comment backcheck and closeout.

Table 2: Review Teams - Disciplines and Expertise

Discipline / Role	Expertise	DQC	ATR
DQC Team Lead	Extensive experience preparing Civil Works decision documents and leading DQC. The lead may serve as a DQC reviewer for a specific discipline (planning, economics, environmental, etc.).	Yes	No
ATR Team Lead	Professional with extensive experience preparing Civil Works decision documents and conducting ATR. Skills to manage a virtual team through an ATR. The lead may serve on the ATR team for a specific discipline (such as planning, economics, or environmental work).	No	Yes
Planning	Skilled water resources planner knowledgeable in complex planning investigations and the application of SMART principle to problem solving.	Yes	Yes
Economics	Experience with applying theory, methods and tools used in the economic evaluation of water resources projects.	Yes	Yes
Environmental Resources	Experience with environmental evaluation and compliance requirements, national environmental laws and statutes, applicable Executive Orders, and other planning requirements.	Yes	Yes
Cultural Resources	Experience with cultural resource survey methods, area of potential effects, National Historic Preservation Act Section 106, and state and federal laws pertaining to American Indian Tribes.	Yes	Yes
Hydraulic and Hydrologic/ Coastal Engineering	Engineer with experience applying hydraulic, hydrologic, and coastal engineering principles and technical tools to project planning, design, construction, and operation.	Yes	Yes
Cost Engineering	Experience using cost estimation software; working knowledge of water resource project construction; capable of making professional determinations using experience.	Yes	Yes
Geotechnical Engineering	Experience with applying geotechnical principles and analysis methods to project planning, design, and construction of nonstructural measures. Should also be familiar with geotechnical conditions of the south Florida region and within Miami-Dade County.	Yes	Yes
Real Estate	Experience developing Real Estate Plans and experience in real estate fee/easement acquisition and residential/business relocations for Federal and/or Federally Assisted Programs for implementation of Civil Works projects.	Yes	Yes
Climate Preparedness and Resilience	A member of the Climate Preparedness and Resiliency Community of Practice knowledgeable of inland and coastal hydrology climate change assessment policy and practice.	No	Yes
Risk and Uncertainty	For decision documents involving hydrologic, hydraulic, and/or coastal related risk management measures, include on the ATR team an expert on multi-discipline flood risk analysis to ensure consistent and appropriate identification, analysis, and written communication of risk and uncertainty.	No	Yes

4. Documentation of Reviews

Documentation of DQC. Quality Control will be performed continuously as the report is drafted. A specific certification of DQC completion will be prepared at the base conditions (existing and future), draft report stage. Documentation of DQC will follow the District Quality Manual and the MSC Quality Management Plan, but will be completed entirely through Microsoft Teams (MS Teams) rather than DrChecks using a comment tracking spreadsheet.An example DQC Certification statement is provided in ER 1165-2-217, Appendix D. Documentation of completed DQC, to include the DQC checklist, will be provided to the MSC, RMO and the ATR Team leader. The ATR team will examine DQC records and comment in the ATR report on the adequacy of the DQC effort. It should be noted that per coordination with the policy review team and Office of Water Project Review, there will be no formal Final IFR/EA DQC Review. However, quality control of the report will remain a constant process throughout the remainder of the study effort leading to the 2024 Chief's Report.

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, Section 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, Section 5.9. Unresolved concerns will be closed in DrChecks by noting the concern has been elevated. ATR documentation will include an assessment by the ATR team of the effectiveness of DQC. The ATR Lead will prepare a Statement of Technical Review (see ER 1165-2-217, Section 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. It should be noted that a final IFR/EA ATR will not be performed; the review schedule above reflects a draft IFR/EA ATR and targeted ATR for G2CRM that will not be certified until immediately before the Final Report HQ Submittal when the draft report NEPA public comments and Policy & Legal Compliance Review comments have been incorporated.

5. Supporting Information

Study Background

Study Authority

The study authority is Public Law 84-71, June 15, 1955, which authorizes an examination and survey of the coastal and tidal areas of the eastern and southern United States, with particular reference to areas where severe damages have occurred from hurricane winds and tides. Notwithstanding Section 105(a) of the Water Resources Development Act of 1986 (33 U.S.C. 2215(a)), which specifies the cost-sharing requirements generally applicable to feasibility studies, Title IV, Division B of the Bipartisan Budget Act of 2018, Public Law 115-123, enacted February 9, 2018 (hereinafter "BBA 2018"), authorizes the Government to conduct the Study at full Federal expense to the extent that appropriations provided under the Investigations heading of the BBA 2018 are available and used for such purpose.

Study Area

The study area is Miami-Dade County, located on the southeast coast of Florida. The county includes the City of Miami and has a population of approximately 2.8 million people, making it the most

populous county in Florida and the seventh most populous in the United States. The average elevation of the county is 6 feet above sea level. Based on its low-lying topography and dense population, the Miami-Dade County area is recognized for high vulnerability to sea level rise and coastal storms.

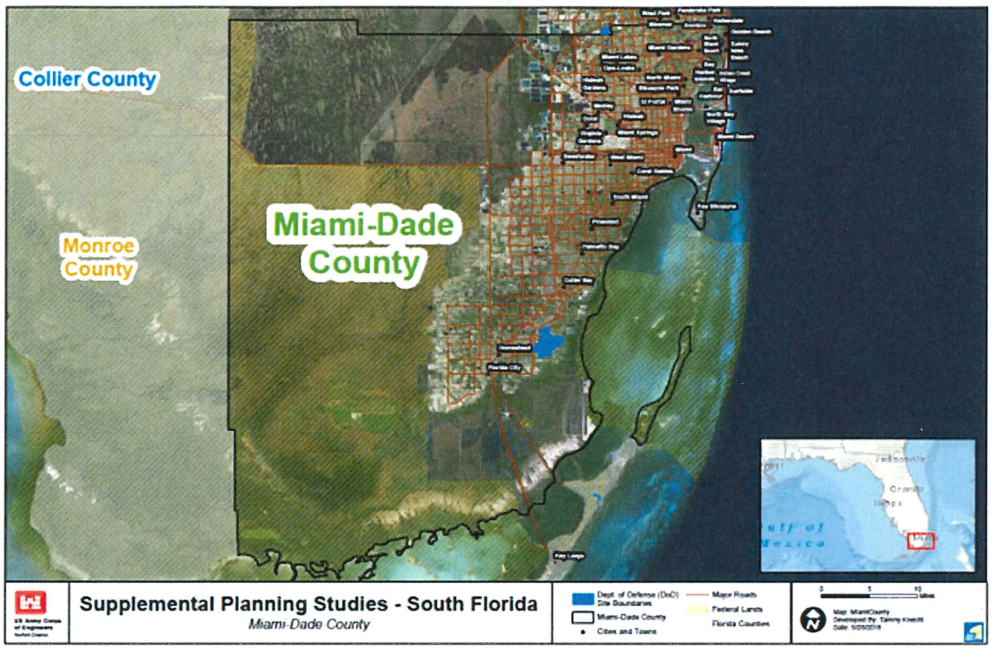

Figure 1 – Study Area Map.

Problem Statement

There are two primary problems in Miami-Dade County associated with coastal storm risk:

- The geographic proximity to the coast, low-lying elevation, and dense population increase Miami-Dade County's vulnerability to coastal storm risks and associated human health and life safety risks.
- Increasing high tides (including exceptionally high tides, sometimes referred to as king tides), , and groundwater elevations due to sea level change result in exacerbated coastal storm risks and risks of damages to infrastructure, natural resources, and communities in Miami-Dade County.

Goals and Objectives

The Federal objective of water and related land resources project planning is to contribute to national economic development (NED) consistent with protecting the nation's environment, pursuant to national environmental statutes, applicable executive orders, treaties, and other Federal planning requirements. The primary goal of this study through 2024 Chief's Report is to recommend a subset of CSRM measures that will move forward for congressional authorization to provide risk management and improvement of life safety during coastal storm events while the feasibility analysis of more complex and comprehensive solutions continues. This recommendation will be consistent with USACE CSRM mission area policies, applicable executive orders, and other USACE planning requirements. Additionally, a goal of the overall study that applies to both the 2024 Chief's Report and following feasibility analyses is to be inclusive of vulnerable Environmental Justice communities

which are historically disproportionately impacted by severe coastal storm events due to a variety of social factors.

The following objectives helped guide plan formulation to achieve study goals and are consistent for both the 2024 Chief's Report and the following feasibility analyses for the programmatic feasibility report for authorization in the potential 2026 and/or 2028 WRDAs (HQ Study Guidance dated 05DEC2023; See Appendix G).

- Manage coastal storm risk and the risk to human health and life safety during coastal storm events in Miami-Dade County over the 50-year period of analysis.
- Improve the resiliency of Miami-Dade County during and after coastal storm events by reducing economic damages to infrastructure, communities, and natural/environmental resources over the 50-year period of analysis.

Future Without Project Conditions

Miami-Dade County is a densely populated and relatively flat community with an average elevation of approximately five feet North American Vertical Datum of 1988 (NAVD88) and a natural high point at 25 feet NAVD88 (Source: 2016 US Geological Survey). The low elevations, tropical location, and hydrologic connections to Biscayne Bay through canals place a significant percentage of the county at risk to flooding from high tides, hurricanes, and other storms. Exacerbating the flooding is the phenomenon of sea level rise, which is the combination of water level rise and land subsidence. South Florida is documented as having a significant rate of relative sea level rise which, coupled with climate change, makes this region and Miami-Dade County increasingly vulnerable to flood risk and coastal storm risk. Additionally, Miami-Dade County is home to almost 2.7 million people, making it the most densely populated and urbanized city in Florida and the seventh most densely populated city in the nation (Source: 2020 US Census). The 2024 Chief's Report will be an interim response to the study authority in that it addresses coastal storm risk to a subset of vulnerable communities, but also sets the stage for additional feasibility analysis and evaluation of risk management measures that will span a larger geographic area within Miami-Dade County.

Types of Measures/Alternatives Being Considered

The analyses and alternatives leading up to the 2024 Chief's Report will reflect a subset of the nonstructural measures for residential and commercial structures and critical infrastructure recommended in the 2021 Recommended Plan: elevations and floodproofing. These measures are anticipated to be eligible for authorization in a policy-compliant and environmentally compliant 2024 Chief's Report.

Estimated Cost/Range of Costs

Costs of alternatives are unknown at this time but given the size of the area, problem complexity, and potential magnitude of the nonstructural measures recommendation, project costs are expected to be well over $200 million.

6. Models to be Used in the Study

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 are any models and analytical tools used 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 following planning model may be used to develop the decision document:

Table 3: Planning Models.

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
G2CRM version 0.4.564	G2CRM is used to evaluate coastal storm risk management alternatives in the back bays recommended in the study with a focus on problematic lifecycle issues like the impact of climate change and avoidance of repetitive damages. The model will allow for use of readily available data from existing sources and corporate databases and integration with GIS. A wide variety of outputs will be used for estimating damages and costs, characterizing and communicating risk, and reporting detailed model behavior in both the FWOP and with-project conditions studied.	Approved for use; undergoing certification to be completed in FY24 before the study is complete.

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. 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. For example, HH&C models need to comply with the requirements of HH&C CoP Enterprise Standard 08101.

These engineering models may 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	Approval Status
Surface-Water Modeling System (SMS), version 13.1	The Surface Water Modeling System (SMS) is a comprehensive environment for one- and two-dimensional models dealing with surface water applications. Hydrodynamic models include CMS-Flow and ADCIRC. The hydrodynamic models cover a range of applications including river flow analysis, rural and urban flooding, estuary and inlet modeling, and modeling of large coastal domains. Additional functionalities include advection/diffusion (RMA4) and sediment transport (FESWMS). Wave models in SMS include CMS-	HH&C CoP Approved

	Wave, STWAVE, BOUSS2D, and CGWAVE and include both spectral and wave transformational models. The Particle Tracking Model (PTM) tracks particles added to the water column to help evaluate sediment transport and environmental impacts. It also includes a shoreline change model GENCADE. It is anticipated that GENCADE, CMS-Flow, CMS-Wave, STWAVE, and ADCIRC may all be used during this study.	
HEC-HMS (Hydrologic Modeling System), version 4.10	This system simulates the complete hydrologic processes of dendritic watersheds. It includes many traditional hydrologic analysis procedures such as event infiltration, unit hydrographs, and hydrologic routing. It includes procedures for continuous simulation including evapo-transpiration, snowmelt, and soil moisture accounting. Advanced capabilities are provided for gridded runoff simulation using the linear quasi-distributed runoff transform (ModClark). Supplemental analysis tools are provided for parameter estimation, depth-area analysis, flow forecasting, erosion and sediment transport, and nutrient water quality.	HH&C CoP Approved
HEC-RAS (River Analysis System), version 6.3	This program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without and with-project conditions along the PC.	HH&C CoP Approved
Abbreviated Risk Analysis, Cost Schedule Risk Analysis	Cost risk analyses identify the amount of contingency that must be added to a project cost estimate and define the high-risk drivers. The analyses will include a narrative identifying the risks or uncertainties. During the alternatives evaluation, the PDT will assist the cost engineer in defining confidence/risk levels associated with the project features within the abbreviated risk analysis. For the cost estimate, an evaluation of risks will be performed using Crystal Ball Cost Schedule Risk Analysis for construction costs over $40 million or the Abbreviated Risk Analysis for projects under $40 million.	Civil Works Cost Engineering and Agency Technical Review MCX mandatory
CEDEP	Corps-proprietary, Excel add-on for Cost Engineering; used to estimate costs of alternatives and the recommended plan	Civil Works Cost Engineering and Agency Technical Review MCX mandatory
ArcGIS, version 10.8.2	Used to visually represent alternatives.	Enterprise

7. Factors Affecting Level and Scope of Review

All planning products are subject to the conduct and completion of District Quality Control. Most planning products are subject to Agency Technical Review or Safety Assurance Review. Information in this section helps in the scoping of reviews through the considerations of various potential risks.

Objectives of the Reviews

The objectives of the District Quality Control Review, the Agency Technical Review, and the Policy and Legal Compliance Review include the following:

1. Ensure decision document quality and completeness.
2. Ensure decision document is compliant with federal laws and policies including but not limited to the National Environmental Policy Act, as well as USACE policies and plan formulation standards for coastal storm risk management feasibility studies.
3. Ensure sound assumptions, modeling and analyses methods, feasibility-level design, and plan formulation methods were utilized to develop the recommended measures/alternatives and appropriately documented in the decision document and supporting appendices.
4. Ensure external coordination with the non-Federal Sponsor, stakeholders, environmental resource agencies, and public throughout the study are appropriately documented in the decision document.

Assessing the Need for IEPR

Mandatory IEPR Triggers

- Has the Chief of Engineers determined the project is controversial?
    - **No.**

- Has the Governor of an affected state requested an IEPR?
    - **No.**

- Is the cost of the project more than $200 million?
    - **Yes**

Potential IEPR Exclusion

The questions below pertain to IEPR Exclusion Condition A:

- Does the study include an EIS?
    - No; the study covered by this Review Plan includes only the analyses leading up to the 2024 Chief's Report, which will be an integrated Environmental Assessment. Any analyses following the 2024 Chief's Report, including potential development of an EIS, will be reflected in a separate, future Review Plan document.

- Is the project controversial?
    - No; nonstructural measures including critical infrastructure are widely accepted and supported by stakeholders, agencies, and the Miami-Dade community as feasible coastal storm risk management measures that do not result in significant adverse environmental impacts.

- Does the project have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources?
    - No/ not anticipated.

- Does the project have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?
    - No/ not anticipated.

- Does the project, before implementation of mitigation measures, have more than a negligible adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.) or the critical habitat of such species designated under such Act.
    - No/ not anticipated.

Assessing Other Risk Considerations

- Will the study likely be challenging?
    - Yes. The study path forward to a 2024 Chief's Report will be challenging in that it requires a significantly expedited report compilation and review timeline. However, the measures included in the 2024 Chief's Report are anticipated to have broad community, stakeholder, and non-Federal sponsor support. Additionally, nonstructural measures and Critical Infrastructure do not include any measures in the water, resulting in significantly less potential environmental impacts and mitigation when compared to more complex measures or those that are in water and affect marine/coastal habitats.

- Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.
    - Sea level change is a source of risk and uncertainty. There is risk and uncertainty related to the public perception of the study given the path forward guidance to complete a shorter-term 2024 Chief's Report that will be limited in analysis capabilities based on available schedule. The team has identified the need to coordinate a communication and public engagement strategy with USACE public affairs as well as Miami-Dade County. There is also significant risk that any feasibility analyses post-2024 Chief's Report will not be able to incorporate or recommend any structural measures because of the 2024 report's BBA-18 budget consumption impacting the ability to meet environmental compliance requirements, contract resource surveys, and reach the level of engineering design needed for feasibility design maturity. If the post-2024 Chief's Report feasibility analyses do not incorporate any actionable structural measures, there will be considerably more residual risk for the County compared to the original 2021 Recommended Plan because of its reduced coastal storm risk management.

- Is the project likely to be justified by life safety or is the study or project likely to involve significant life safety issues? Briefly describe the life risk, including the District Chief of Engineering's assessment as to whether there is a significant threat to human life associated with aspects of the study or failure of the project or proposed projects.

- No, the study is not anticipated to be justified by life safety. However, life safety and community resiliency areconsiderations s in the formulation strategy of focusing on nonstructural measures including critical infrastructure for the 2024 Chief's Report.

- 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? If so, how?
  - No.

- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule? If so, how?
  - No.

- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources? If so, what are the anticipated impacts?
  - No.

- Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures? If so, describe the impacts?
  - No.

- 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? If so, what are the anticipated impacts?
  - No. The project, which will include nonstructural measures such as elevations and floodproofing for residential buildings, commercial buildings, and critical infrastructure, is not anticipated to have an adverse impact on threatened or endangered species and/or their designated habitat. Because of this, the 2024 feasibility report will be an integrated EA rather than an EIS.

8. Risk Informed Decisions on Level and Scope of Review

Targeted ATR. Will a targeted ATR be conducted for the study? **Yes; a targeted ATR will be conducted concurrently with the draft report ATR.**

IEPR Decision. Based on the measures being considered in the development of a recommended plan and the expedited schedule necessary to complete a 2024 Chief's Report for WRDA24 authorization, per USACE HQ guidance and in coordination and alignment with the vertical team and Policy and Legal Compliance Review Team, the PDT has made the risk-informed decision to request an IEPR Exclusion via the exclusion conditions below. This exclusion is applicable only for the feasibility analysis leading to the 2024 Chief's Report which will consider only nonstructural measures; for any feasibility analyses and feasibility report documents prepared following the 2024 Chief's Report, a new Review Plan will be prepared and reviewed.

Safety Assurance Review. Safety Assurance Reviews are managed outside of the USACE and are conducted on design and construction products for coastal storm risk management projects, or other

projects where existing and potential hazards pose a significant threat to human life. In some cases, such as the unique design considerations for various critical infrastructure structure categories, significant life safety considerations may be relevant to planning decisions. These cases may warrant the development of relevant charge questions for consideration during reviews such as ATR or IEPR. In addition, if the characteristics of the recommended plan warrant a Safety Assurance Review, a panel will be convened to review the design and construction activities on a regular schedule before construction begins and until construction activities are completed.

Decision on Safety Assurance Review. Insufficient detail is known about the need for Safety Assurance Review in the design and construction phases. Therefore, a decision will be made at a later time when more detailed information is known and in coordination with the Jacksonville District.

9. Policy and Legal Compliance Review

Policy and legal compliance review of draft and final planning decision documents is delegated to the MSC (see EP 1105-2-61 dated July 1, 2023).

(i) Policy Review.

The policy review team is identified through the collaboration of the MSC Chief of Planning and Policy and the HQUSACE Chief of the Office of Water Project Review. The makeup of the Policy Review team was drawn from HQUSACE, the MSC, the Planning Centers of Expertise, and other review resources.

- The Policy Review Team will be invited to participate in key meetings during the development of decision documents as well as SMART Planning 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 Policy Review team should be documented in a Memorandum for the Record (MFR) produced for each engagement with the team. The MFR should be distributed to all meeting participants.

- Teams may choose to capture some of the policy 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 should be documented in an MFR.

(ii) Legal Review.

Representatives from the Office of Counsel will be assigned to participate in reviews. Members may participate from the District, MSC and HQUSACE. The MSC Chief of Planning and Policy will coordinate membership and participation with the office chiefs.

- In some cases, legal review input may be captured in the MFR for the particular meeting or milestone. In other cases, a separate legal memorandum may be used to document the input from the Office of Counsel.

Each participating Office of Counsel will determine how to document legal review input.

10. Public Comment

This Review Plan will be posted on the District's website. Public comments on the scope of reviews, technical disciplines involved, schedules and other considerations may be submitted to the District for consideration. If the comments result in a change to the Review Plan, an updated plan will be posted on the District's website.

11. Documents Distributed Outside the Government

For information distributed for review to non-governmental organizations, the following disclaimer shall be placed on documents:

"This information is distributed solely for the purpose of pre-dissemination review under applicable information quality guidelines. It has not been formally disseminated by USACE. It does not represent and should not be construed to represent any agency determination or policy.

Appendix A - Brief Description of Each Type of Review

This section describes each level of review to be conducted. Based upon the factors discussed in Section 1, this study will undergo the following types of reviews:

District Quality Control. All decision documents and accompanying components will undergo DQC. This internal review covers basic science and engineering work products. It fulfils the project quality requirements of the Project Management Plan. The DQC team will read all reports and appendices. The review must evaluate the correct application of methods, validity of assumptions, adequacy of basic data, correctness of calculations (error-free), completeness of documentation, and compliance with guidance and standards. Districts are required to check all computations and graphics by having the reviewer place a highlight (e.g., place a "red dot") on each annotation and/or number indicating concurrence with the correctness of the information shown. Due to the schedule constraints, and because no content changes will be made to the feasibility report following completed draft report technical and quality reviews, there will not be a final report DQC.

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. Due to the schedule constraints, and because no content changes will be made to the feasibility report following completed draft report ATR other than comment revisions as part of the draft P&LC review, draft and final office of counsel reviews, draft public review, and draft policy and legal compliance review, there will not be a formal final report ATR.

Cost Engineering Review. All decision documents will be coordinated with the Cost Engineering Mandatory Center of Expertise (MCX). The MCX assisted in determining the expertise needed on the ATR and IEPR teams. The MCX will provide the Cost Engineering certification. The RMO is responsible for coordinating with the MCX for the reviews. These reviews occur as part of ATR.

Policy and Legal Compliance Review. 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.

Public Review. The District will post the Review Plan and approval memo on the District's 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.