



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION  
60 FORSYTH STREET SW, ROOM 10M15  
ATLANTA, GA 30303-8801

CESAD-PDP

18 May 2019

MEMORANDUM FOR Commander, Jacksonville District, 701 San Marco Blvd,  
Jacksonville, Florida 32207-8175

SUBJECT: Approval of Review Plan and Type I IEPR Exclusion for the Pinellas  
County, FL Feasibility Study

1. References:

a. Memorandum, CESA-W-PM-D, 11 April 2019, subject: Pinellas County, FL  
Coastal Storm Risk Management Feasibility Study Review Plan Submittal for  
Division Review and Approval.

b. Memorandum, CECW-P, 7 June 2018, subject: Revised Delegation of  
Authority in Section 2034(a)(5)(A) of the Water Resources Development Act of 2007  
(WRDA 2007), as amended (33 U.S.C. 2343).

2. Jacksonville District prepared the review plan for the Pinellas County FL, Coastal  
Storm Risk Management Feasibility Study consistent with EC 1165-2-217. The  
District coordinated the review plan with the National Planning Center of Expertise for  
Coastal Storm Risk Management (PCX-CSR), which is the lead office to execute  
this review plan. For further information, contact Larry Cocchieri, PCX-CSR at  
347 370-4571.

3. I approve this review plan and the request for exclusion from IEPR. The approved  
review plan is subject to change as circumstances require, consistent with study  
development under the project management business process. Subsequent revisions  
to this approved review plan due to significant changes in the study, study scope, or  
level of review will require new written approval from this office.

4. The point of contact for this action is [REDACTED], Acting Chief, Planning  
and Policy Division, at 404-562-5226, [REDACTED]

Encl  
as

[REDACTED] Digitally signed by  
[REDACTED]  
8759696 Date: 2019.05.18 14:30:30  
04:00  
[REDACTED]  
Brigadier General, USA  
Commanding

# REVIEW PLAN

May 2019

**Project Name:** Pinellas County, Florida Study

**P2 Number:** 474971

**Decision Document Type:** Feasibility Study

**Project Type:** Coastal Storm Risk Management (CSRM)

**District:** Jacksonville District

**District Contact:** SAJ Peer Review Manager (904) 232-1818

**Major Subordinate Command (MSC):** South Atlantic Division

**MSC Contact:** Senior Plan Formulator (404) 562-5226

**Review Management Organization (RMO):** Planning Center of Expertise for Coastal Storm Risk Management (PCX-CSRM)

**RMO Contact:** Planning Program Manager (651) 290-5259

## Key Review Plan Dates

<b>Date of RMO Endorsement of Review Plan:</b>	<b>26 March 2019</b>
<b>Date of MSC Approval of Review Plan:</b>	<b>Pending</b>
<b>Date of IEPR Exclusion Approval:</b>	<b>Pending</b>
<b>Has the Review Plan changed since PCX Endorsement?</b>	<b>No</b>
<b>Date of Last Review Plan Revision:</b>	<b>None</b>
<b>Date of Review Plan Web Posting:</b>	<b>Pending</b>
<b>Date of Congressional Notifications:</b>	<b>Pending</b>

## Milestone Schedule

	<b>Scheduled</b>	<b>Actual</b>	<b>Complete</b>
<b>Feasibility Cost Sharing Agreement:</b>	10-9-2018	10-9-2018	Yes
<b>Alternatives Milestone:</b>	1-15-2019	1-15-2019	Yes
<b>Tentatively Selected Plan:</b>	4-9-2020	(enter date)	No
<b>Release Draft Report to Public:</b>	6-9-2020	(enter date)	No
<b>Agency Decision Milestone:</b>	10-9-2020	(enter date)	No
<b>Final Report Transmittal:</b>	8-23-2021	(enter date)	No
<b>Chief's Report or Director's Report:</b>	10-8-2021	(enter date)	No

## Project Fact Sheet

May 2019

**Project Name:** Pinellas County, Florida Study

**Location:** This study area is the shoreline of Pinellas County, Florida, which is located on the west coast of Florida along the Gulf of Mexico. The focused study area includes approximately 7.4 miles of coastline along Pinellas County on the coastal barrier islands of Treasure Island and Long Key.

**Authority:** The study authority for the current study is Section 216 of the Flood Control Act of 1970 (Public Law 91-611), which supports investigation efforts for the modification of existing projects as follows: The Secretary of the Army, acting through the Chief of Engineers, to review the operation of projects for which construction has been completed and which were constructed in the interest of navigation, flood control, water supply, and related purposes, when found advisable due to significantly changed physical or economic conditions, and to recommend to Congress on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest.

The project was originally authorized by Section 101 of the Rivers and Harbors Act of 1966 (Public Law 89-789) in accordance with the report of the Chief of Engineers dated 14 September 1966. The original authorization allowed for improvements for beach erosion control for Clearwater Beach Island, Sand Key, Treasure Island, and Long Key by beach restoration, periodic nourishment, and revetments. Provisions of Section 156 of WRDA 76 (PL 94-587) extended the period of Federal participation from 10 years to 15 years. The project authority was further amended by Section 501(b) of the Water Resources Development Act (WRDA) of 1986 (PL 99-662), which authorized, subject to a favorable Chief's Report, the construction of the recommendations of the Report of the Board of Engineers for Rivers and Harbors, dated April 23, 1985. A favorable Chiefs Report was signed on July 27, 1987 recommending the project plan as formulated except that Federal participation in periodic nourishment should be limited to the 50-year economic life of the project.

Study funding was appropriated under the Bipartisan Budget Act of 2018 (Public Law 115-123).

**Sponsor:** Pinellas County

**Type of Study:** Feasibility Study

**SMART Planning Status:** This study is a Coastal Storm Risk Management (CSRM) Feasibility Study. An integrated Feasibility Report and analysis pursuant to the National Environmental Policy Act (NEPA) will be prepared. The end product will be a feasibility report describing, in detail, the identified problem areas, the plans formulated, the engineering and economic feasibility of the considered alternatives, the development of the recommended plan, the social and environmental constraints and impacts for the recommended plan and the Federal interest in implementing the recommended plan.

**Project Area:** Pinellas County includes approximately 38 miles of shoreline located along the central Gulf Coast shoreline of Florida. Pasco County is located to the north of Pinellas, and the

mouth of Tampa Bay borders the county to the south. The barrier islands along the Pinellas County shoreline are generally low-lying, with elevations of less than ten feet.

The initial study area includes the entire Pinellas County shoreline, including bay-fronting shorelines affected by coastal storm impacts. Clearwater Beach Island and Sand Key were screened from the study area due to a lack of Federal interest for Clearwater Beach Island, and to the existence of a well-performing Federal project with a sufficient period of Federal participation remaining for Sand Key. The description of the focused study areas is as follows:

- (1) Treasure Island –The study length is 3.4 miles, extending from Johns Pass at the north to Blind Pass to the south (see Figure 1), including the backbay shorelines.
- (2) Long Key – The study length is 4.0 miles, extending from Blind Pass at the north to Pass-A-Grille to the south (see Figure 2), including the backbay shorelines.

**Problem Statement:** Hurricane and coastal storm damages including inundation, erosion, and wave attack along the Pinellas County shoreline threaten infrastructure and beach access for recreation and contribute to public safety hazards. Infrastructure is located along large portions of the study area, including commercial businesses, hotels, condominiums, residential homes, roads, public parkland, and public beach access points. Loss of protective beaches and dunes due to shoreline recession threatens infrastructure.

The scope of this Feasibility study will assess the shoreline problems and provide possible CSRMs measures to protect infrastructure located along approximately 7.4 miles of Pinellas County coastline. Limited backbay analysis will be conducted to assess backbay impacts to shoreline project flooding benefits.

Note: Although the authorized study area also includes Sand Key (3.4 miles) and Clearwater Beach Island (5.6 miles) located just to the north of Treasure Island and Long Key, it is Treasure Island and Long Key that are in immediate and urgent need for implementation of coastal storm risk reduction measures.

**Federal Interest:** The study will evaluate the Federal Interest to reduce coastal storm damages to infrastructure, loss of habitat, loss of recreational opportunities along the Treasure Island and Long Key study areas along the Pinellas County coastline.

**Risk Identification:** The project will not be justified by life safety, nor does it involve significant threat to human life/safety assurance. Study risks currently outlined in the project's Risk Register include: 1) insufficient study funds may restrict the depth/level of the modeling effort necessary to fully assess costs, benefits, and impacts of various alternatives; and 2) the potential for backbay flooding to diminish the Recommended Plan's ability to provide projected project benefits. These risks will be mitigated throughout the study, and residual risks will be documented. Any future risks identified will be added to the Risk Register to ensure they are properly documented.

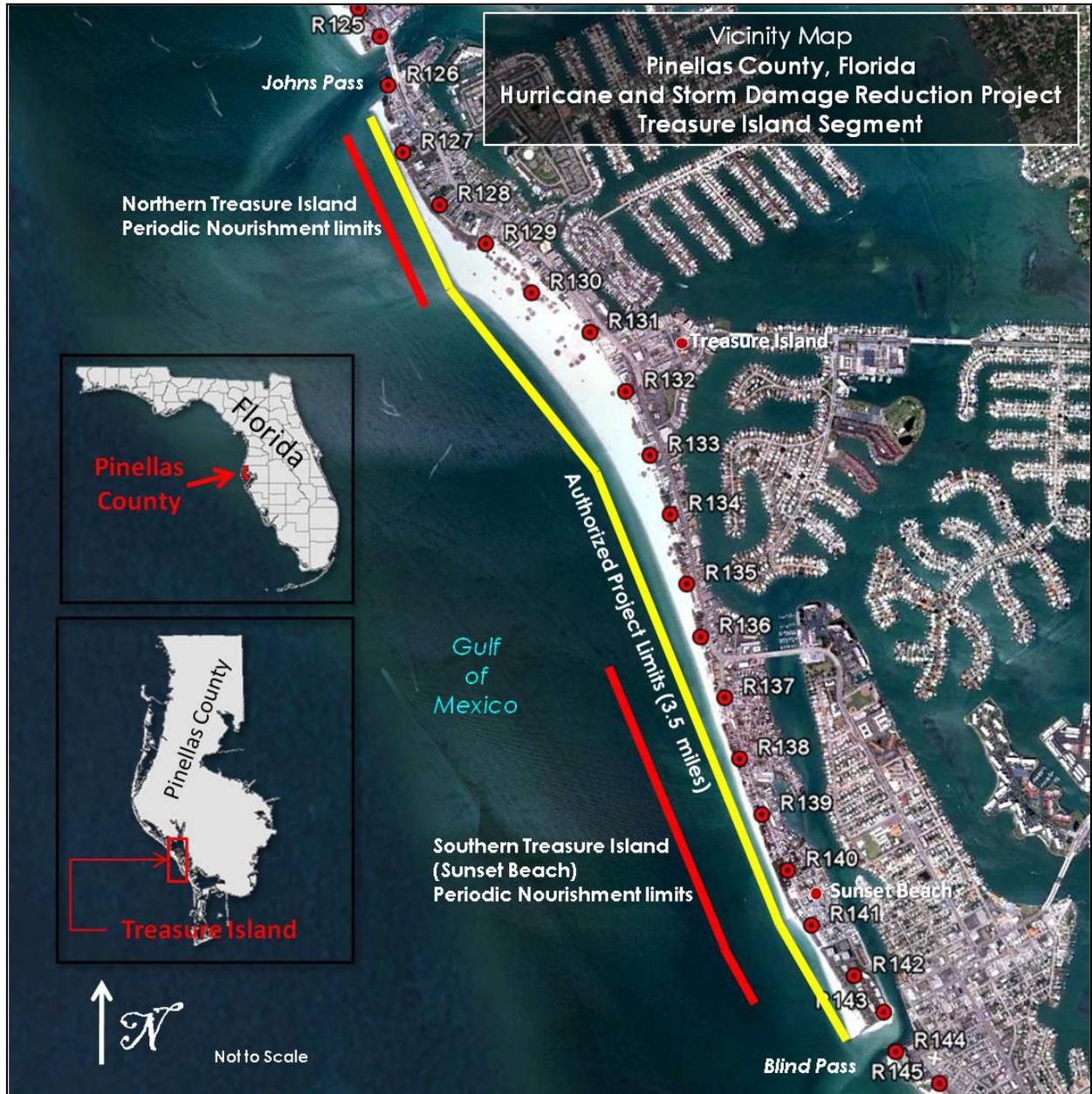


Figure 1: Treasure Island Project Location

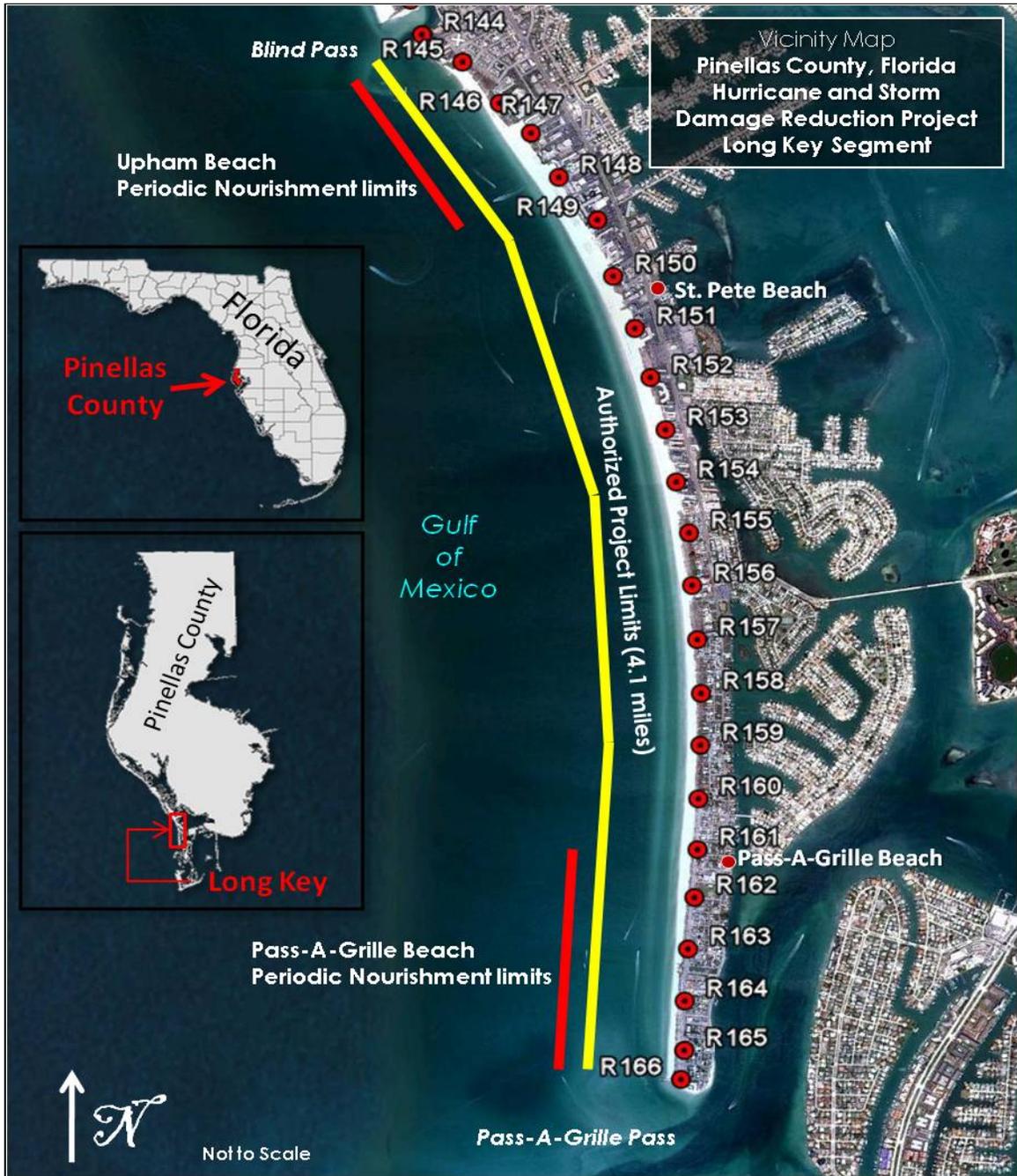


Figure 2: Long Key Project Location

## 1. FACTORS AFFECTING THE LEVELS OF REVIEW

### Scope of Review.

- Will the study likely be challenging?  
This study is not anticipated to be technically, institutionally, or socially challenging. There has been a Federal Project in the study area for nearly 50 years. This project has been successfully constructed, has undergone multiple renourishments, and has provided significant coastal storm risk management (formerly referred to as hurricane and storm damage reduction) benefits to Pinellas County and to the Nation. This study will evaluate solutions for another 50 years of Federal Participation. If nourishment is the recommended plan, there is an existing compatible sand source available.
- Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.  
The main area of uncertainty is related to the low elevations in the study area that could cause the study area to experience inundation from the backbay areas. This could impact the benefits that a future project can provide to the study area.
- Is the project likely to be justified by life safety or is the study or project likely to involve significant life safety issues?  
The project will not be justified by life safety, nor does it involve significant threat to human life/safety assurance. Failure of the project would not pose a threat to human life.
- Has the Governor of an affected state requested a peer review by independent experts?  
The Governor of the State of Florida has not requested a peer review by independent experts.
- Will the project likely involve significant public dispute as to the project's size, nature, or effects?  
No significant public dispute is anticipated based on the previous history of the current Federal project in the study area.
- Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project?  
No significant public dispute to the economic or environmental costs or benefits is anticipated. The project is anticipated to provide significant national and regional economic developments, which will be well documented.
- 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?  
The information in the study document or project design will not 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.

- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule?  
The proposed project design will provide coordinated coastal storm risk management along the shoreline in the study area. This could be accomplished by implementing new alternatives and rehabilitating some areas that contain existing shoreline armor. The alternatives could include, but are not limited to, stand alone or combinations of soft structures (beach and dune), hard structures (breakwaters, artificial reefs, rock revetment), and non-structural alternatives (flood proofing). The project is resilient in that the beach naturally recovers to some extent after storms, and emergency nourishment may be implemented to restore projects should a natural disaster adversely impact the project. CSRMs projects such as this one are robust by adding sand to the natural system and reducing damages in a way that allows the naturally dynamic beach to adjust to the ever-changing coastal environment, or by the implementation of hard structures to dissipate wave energy and reduce damages to infrastructure.
- Is the estimated total cost of the project greater than \$200 million?  
The costs of the alternatives being analyzed in the current study are not expected to exceed \$200 million.
- Will an Environmental Impact Statement be prepared as part of the study?  
An Environmental Assessment (EA) is currently anticipated to be prepared as part of the study.
- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources?  
The project is not expected to adversely affect tribal, cultural, or historical resources.
- Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?  
The project is not expected to have substantial adverse impacts on fish and wildlife species. Agency consultations will be held and documented for the review process.
- 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?  
The recommended plan implementation is not expected to have significant impacts to endangered or threatened species or to their designated habitat. Coordination will occur with the appropriate agencies and be documented for the review process.

## 2. REVIEW EXECUTION PLAN

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 study 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). Jacksonville District is the home district and it shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the Jacksonville District.

**Agency Technical Review.** ATR is 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. If significant life safety issues are involved in a study or project a safety assurance review should be conducted during ATR.

**Independent External Peer Review.** Type I IEPR may be required for decision documents under certain circumstances. This is the most independent level of review, and is applied in cases that meet criteria where the risk and magnitude of the project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision is made as to whether Type I IEPR is appropriate.

**Cost Engineering Review.** All decision documents shall be coordinated with the Cost Engineering Mandatory Center of Expertise (MCX). The MCX will assist 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 typically occur as part of ATR.

**Model Review and Approval/Certification.** EC 1105-2-412 mandates the use of certified or approved models for all planning work to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions.

**Policy and Legal Review.** All decision documents will be reviewed for compliance with law and policy. ER 1105-2-100, Appendix H provides 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. These reviews are not further detailed in this Review Plan.

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

**Table 1: Levels of Review**

<b>Products to Undergo Review</b>	<b>Review Level</b>	<b>Start Date</b>	<b>End Date</b>	<b>Cost</b>	<b>Complete</b>
FWOP Economics – Beach-fx	Agency Technical Review	July 2019	August 2019	\$10,000	No
Draft Feasibility Report, appendices, and NEPA	District Quality Control	February 9, 2020	April 9, 2020	\$15,000	No
Draft Feasibility Report, appendices, and NEPA	Agency Technical Review	June 9, 2020	August 9, 2020	\$40,000	No
Draft Feasibility Report, appendices, and NEPA	Policy and Legal Review	June 9, 2020	August 9, 2020	n/a	No
Draft Feasibility Report, appendices, and NEPA	Independent External Peer Review*	TBD	TBD	TBD	No
Pre-Final Feasibility Report, appendices and NEPA	District Quality Control	October 15, 2020	December 15, 2020	\$15,000	No
Final Feasibility Report, appendices and NEPA	Agency Technical Review	December 15, 2021	February 15, 2021	\$35,000	No
Final Feasibility Report, appendices and NEPA Concurrent Review	Policy and Legal Review	February 15, 2021	April 15, 2021	n/a	No

\* A waiver for exclusion of independent external peer review is being requested concurrent with approval of the review plan.

**a. DISTRICT QUALITY CONTROL**

The district shall manage DQC and will appoint a DQC Lead to manage the local review (see EC 1165-2-217, section 8.a.1). The DQC Lead should prepare a DQC Plan and provide it to the RMO and MSC prior to starting DQC reviews. Table 2 identifies the required expertise for the DQC team.

**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 CSRMs projects with periodic renourishment and associated planning reports and documents.
Economics	A senior economist with experience evaluating CSRMs project benefits and costs. Beach-Fx experience is required.
Environmental Resources/NEPA Compliance	A senior biologist/ecologist/environmental engineer, preferably with experience in CSRMs projects. They must be able to review for NEPA compliance (including cultural resources coordination) and have a thorough understanding of coastal ecosystems and CSRMs projects
Coastal Engineering	The team member should be a registered professional with experience in CSRMs projects, experience with or knowledge of Beach-fx, beach nourishment, sand sources, and coastal structures,
Cost Engineering	A registered professional with experience in cost engineering and have a thorough understanding of CSRMs projects, dredging costs and coastal structures estimates.
Real Estate	The real estate reviewer should be a senior real estate specialist with experience in CSRMs projects.

**Documentation of DQC.** Quality Control should be performed continuously throughout the study. A specific certification of DQC completion is required at the draft and final report stages. Documentation of DQC should follow the District Quality Manual and the MSC Quality Management Plan. An example DQC Certification statement is provided in EC 1165-2-217, on page 19 (see Figure F). Documentation of completed DQC should be provided to the MSC, RMO and ATR Team leader prior to initiating an ATR. The ATR team will examine DQC records and comment in the ATR report on the adequacy of the DQC effort. Missing or inadequate DQC documentation can result in delays to the start of other reviews (see EC 1165-2-217, section 9).

**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. An RMO manages ATR; for this study, the RMO will be the PCX-CSR. The PCX-CSR will be responsible for identifying the ATR team members. The review is 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 EC 1165-2-217, section 9(h) (1)). Table 3 identifies the disciplines and required expertise for this ATR Team.

**Table 3: Required ATR Team Expertise**

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, CSR projects, and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as the reviewer for a specific discipline.
Plan Formulator	The plan formulator should be a senior water resources planner with experience in CSR projects and associated planning reports and documents. Plan formulation ATR certification is required.
Economics	The economics reviewer will be an expert in the field of economics and have a thorough understanding of CSR projects with periodic renourishment, BCR updates, Beach-fx and incidental benefits (preferably recreation).
Environmental Resources/NEPA Compliance	A senior biologist/ecologist/environmental engineer, preferably with experience in CSR projects. The environmental reviewer will be an expert in the field of environmental resources and have a thorough understanding of NEPA, coastal ecosystems, marine ecosystems, CBRA and CSR projects.
Coastal Engineering	The team member should be a registered professional with a minimum of 5 years' experience that encompasses CSR projects, experience with or knowledge of Beach-fx, beach nourishment, sand sources, and coastal structures.
Cost Engineering	A registered professional with a minimum of 5 years' experience in cost engineering. The cost engineering reviewer will be an expert in the field of cost engineering and have a thorough understanding of CSR projects, dredging costs and coastal structures estimates. The cost engineer shall be a Walla Walla Cost MCX/TCX approved cost reviewer, as the cost estimate for this document is anticipated to need CSRA and Cost MCX/TCX review and Certification.
Real Estate	The real estate reviewer should be a senior real estate specialist with experience in CSR projects.

ATR Team Members/Disciplines	Expertise Required
Risk Analysis	The reviewer will be experienced with performing and presenting risk analyses in accordance with ER 1105-2-101 and other 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 Coastal reviews.
Climate Change	The reviewer should be experienced in performing and presenting climate change information in accordance with ECB 2018-14. The team member must be certified by the Climate Preparedness and Resilience CoP.

**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. If a concern cannot be resolved by the ATR team and PDT, it will be elevated to the vertical team for resolution using the EC 1165-2-217 issue resolution process. Concerns can be closed in DrChecks by noting the concern has been elevated for resolution. The ATR Lead will prepare a Statement of Technical Review (see EC 1165-2-217, Section 9), for the draft and final reports, certifying that review issues have been resolved or elevated. ATR may be certified when all concerns are resolved or referred to the vertical team and the ATR documentation is complete.

**c. INDEPENDENT EXTERNAL PEER REVIEW**

**(i) Type I IEPR.**

**Decision on Type I IEPR.** Based on the Project Fact Sheet listed in Section 1 above none of the mandatory triggers described in EC1165-2-217 for Type I IEPR have been met.

- If the document doesn't meet the Type I IEPR mandatory triggers in EC 1165-2-217, discuss:
  - the consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice);

The Pinellas County CSRSM Project is expected to address current storm damages risks in the project areas; therefore, it will not negatively impact public safety and social justice.

- If the product is likely to contain influential scientific information or highly influential scientific assessment;

The project will not contain influential scientific information or highly influential scientific assessment.

- If and how the decision document meets any of the possible exclusions described in EC 1165-2-217.

This CSRSM project satisfies the criteria in EC 1165-2-217, paragraph 11.d(4)(a) for eligibility exclusion from Type I IEPR. The project does not have life safety concerns,

novel approaches, controversial components. It is not precedent setting, there is no significant interagency interest, and there are no significant economic, environmental, or social effects to the nation if not constructed. An IEPR exclusion is requested for this study.

**(i) Type II IEPR.**

The second kind of IEPR is Type II IEPR. These Safety Assurance Reviews are managed outside of the USACE and are conducted on design and construction for hurricane, storm and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. A Type II IEPR Panel will be convened to review the design and construction activities before construction begins, and until construction activities are completed, and periodically thereafter on a regular schedule.

**Decision on Type II IEPR.** Based on the project as currently envisioned, a Type II IEPR Safety Assurance Review of this project is not recommended at this time. A risk-informed decision concerning the timing and the appropriate level of reviews for the project implementation phase will be prepared and submitted for approval in an updated Review Plan prior to initiation of the design/implementation phase of this project.

**d. MODEL CERTIFICATION OR APPROVAL**

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models 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 use of a certified/approved planning model does not constitute technical review of a planning product. The selection and application of the model and the input and output data is the responsibility of the users and is subject to DQC, ATR, and IEPR.

**Table 4: Planning Models.** The following models may be used to develop the decision document:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
Beach-fx	Beach-fx is a data-driven economics model derived primarily from socioeconomic data and engineering model input. Beach-fx assists with the evaluation and analysis of benefits and life cycle costs of coastal storm risk management projects. It is a national model developed by the Corps that does not require certification specific to this individual project.	Approved for use

G2CRM	G2CRM is a Probabilistic Life Cycle Analysis model designed for evaluating Flood Risk Management projects involving static protective measures. It is a national model developed by the Corps. While it is not yet certified, it is approved for use to evaluate backbay impacts for studies authorized by the Bipartisan Budget Act of 2018.	Approved for Use on Supplemental Studies
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EC 1105-2-412 does not cover engineering models used in planning. The process that the Hydrology, Hydraulics and Coastal Community of Practice (HH&C CoP) of USACE follows to validate engineering software for use in planning studies and to satisfy the requirements of the Corps' Scientific and Engineering Technology (SET) initiative is provided in Enterprise Standard (ES)-08101 Software Validation for the Hydrology, Hydraulics and Coastal Community of Practice. 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 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 selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC and ATR.

**Table 5: Engineering Models.** These models may be used to develop the decision document:

<b>Model Name and Version</b>	<b>Brief Model Description and How It Will Be Used in the Study</b>	<b>Approval Status</b>
Beach-fx SBEACH CSHORE	<p>Beach-fx is a certified model for determining damages and benefits for CSRMs projects and will be used for this study. The shoreline storm response is determined by applying a plausible storm set that drives the Beach-fx model to simplified beach profiles that represent the shoreline features of the project site.</p> <p>Application of the storm set to the idealized profiles will be accomplished with either the SBEACH coastal processes response model or the CSHORE cross shore coastal processes model. Both models are Corps-approved for application in CSRMs projects.</p>	Approved for use

**e. POLICY AND LEGAL REVIEW**

Policy and legal compliance reviews for draft and final planning decision documents are delegated to the MSC (see Director’s Policy Memorandum 2018-05, paragraph 9).

**a. 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 (see Attachment 1). The makeup of the Policy Review team will be drawn from Headquarters (HQUSACE), the MSC, the Planning Centers of Expertise, and other review resources as needed.

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.

**b. 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.

**ATTACHMENT 1: TEAM ROSTERS**

PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
[REDACTED]	CESAJ-PM-WN	Project Manager	904.232.1806
[REDACTED]	CESAJ-PD-PN	Planning, PTL	904.232.2136
[REDACTED]	CESAJ-EN-DW	Engineering, ETL	904.232.2437
[REDACTED]	CESAJ-EN-TC	Engineering Cost	904.232.1063
[REDACTED]	CESAJ-EN-WC	Coastal Engineering	904.232.1386
[REDACTED]	CESAJ-EN-GG	Geologist	904.232.1890
[REDACTED]	CESAJ-PD-D	Economist	904.232.3530
[REDACTED]	CESAJ-PD-EC	Planning Environmental	904.232.3271
[REDACTED]	CESAJ-PD-ES	Planning Cultural	904.232.3634
[REDACTED]	CESAJ-RE-A	Real Estate Acquisition	904.232.3811
[REDACTED]	CESAJ-OC	Office Council	904.232.1172

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position	Phone Number
[REDACTED]	CESAJ-PD-PW	PD Peer Review Manager	904.232.1818
[REDACTED]	CESAJ-PD-PN	PD-DQC Review Coordinator	904.232.1238
[REDACTED]	CESAJ-EN-QC	EN DQC Review Coordinator	904.232.3131
TBD	CESAJ-PD-PN	Branch/Section Chief/Designee	TBD
TBD	CESAJ-EN-DW	Branch/Section Chief/Designee	TBD
TBD	CESAJ-EN-TC	Branch/Section Chief/Designee	TBD
TBD	CESAJ-EN-WC	Branch/Section Chief/Designee	TBD
TBD	CESAJ-EN-GG	Branch/Section Chief/Designee	TBD
TBD	CESAJ-PD-D	Branch/Section Chief/Designee	TBD
TBD	CESAJ-PD-EC	Branch/Section Chief/Designee	TBD
TBD	CESAJ-PD-ES	Branch/Section Chief/Designee	TBD
TBD	CESAJ-RE-A	Branch/Section Chief/Designee	TBD
TBD	CESAJ-OC	Branch/Section Chief/Designee	TBD

AGENCY TECHNICAL REVIEW TEAM			
Name	Office	Position	Phone Number
TBD		ATR Lead	
TBD		Plan Formulator	
TBD		Economics	
TBD		Environmental	
TBD		Coastal Engineering	
TBD		Cost Engineering	
TBD		Real Estate	
TBD		Climate Change/Risk Analysis	

VERTICAL TEAM			
Name	Office	Position	Phone Number
[REDACTED]	CECW-P	Acting, USACE Planning and Policy Chief	202.761-0115
[REDACTED]	CECW-SAD	SAD RIT Planner	904.472-5776
[REDACTED]	CESAD-P	Acting Chief Office of Water Project Review	202.761-0523
[REDACTED]	CESAD-PDP	Plan Formulation	404-562-5226
[REDACTED]	CESAD-PDP	Environmental	404.562.5227
[REDACTED]	CESAD-RBT	Engineering	404.562.5120

POLICY REVIEW TEAM			
Name	Office	Position	Phone Number
[REDACTED]	CESAD-PDH	Review Manager	404.562-5177
[REDACTED]	CECW-PC	Plan Formulation	202-761-5220
[REDACTED]	CECW-PC	Environmental	202-761-1380
[REDACTED]	CECW-PC	Economics	202-761-8643
[REDACTED]	CESAD-RBT	Structural Engineering	404.562.5120
[REDACTED]	CENWP-EC-HD	Climate Change	503-808-4893
[REDACTED]	CESAD-RE	Real Estate	404.562-5075
[REDACTED]	CESAAD-OC	Attorney	404.5625017