TYBEE ISLAND CHANNEL IMPACTS NAVIGATION STUDY

PEER REVIEW PLAN MARCH 2010







DEPARTMENT OF THE ARMY SAVANNAH DISTRICT, CORPS OF ENGINEERS 100 W. OGLETHORPE AVENUE SAVANNAH, GEORGIA 31401-3640

APR 1 3 2010

CESAS-PD

MEMORANDUM FOR CDR South Atlantic Division, (CESAD-PD/Lester Dixon), 60 Forsyth Street, RM10M15, Atlanta, Georgia 30303

SUBJECT: Tybee Island Channel Impacts Navigation Study Peer Review Plan

1. References:

- a. Peer Review Plan (RP) for Tybee Island Channel Impacts Navigation Study, dated March 2010.
- b. Review Plan Checklist for Tybee Island Channel Impacts Navigation Study Option A, dated 12 April 2010.
- c. Review Plan Checklist for Tybee Island Channel Impacts Navigation Study Option B, dated 12 April 2010.
- d. Deep Draft Navigation Planning Center of Expertise (DDNPCX) concurrence memorandum, dated 12 April 2010.
- 2. Enclosures are submitted for your approval as required in Engineering Circular 1165-2-209 Review of Decision Documents, dated 31 January 2010.
- 3. The DDNPCX has reviewed references 1.a., 1.b., and 1.c. as documented in reference 1.d. recommending the RP for Major Subordinate Command approval.
- 4. If additional information is required, please contact me at (912) 652-5781.

Encl

WILLIAM G. BAILEY, P.E

William & Briler

Chief, Planning Division

CESAM-PD-FE 12 April 2010

MEMORANDUM FOR: Margarett McIntosh, Savannah District, U.S. Army Corps of Engineers

SUBJECT: Tybee Island Channel Impacts Navigation Study

- 1. The Deep Draft Navigation Center of Expertise (DDNPCX) has reviewed the Review Plan (RP) for the subject study and concurs that the RP satisfies peer review policy requirements outlined in Engineering Circular (EC) 1165-2-209 Review of Decision Documents, dated 31 January 2010.
- 2. The review was performed by Bernard E. Moseby, Deputy Director, DDNPCX. The RP checklist documenting the review is attached.
- 3. The DDNPCX recommends the RP for approval by the MSC Commander. Upon approval of the RP, please provide a copy of the approved RP, a copy of the MSC Commander Approval memorandum, and the link to where the RP is posted on the District website.
- 4. Thank you for the opportunity to assist in the preparation of the RP. Please coordinate the Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Model Certification efforts outlined in the RP with Bernard E. Moseby, Deputy Director, DDNPCX at (251) 694-3884.

Encl Bernard E. Moseby

Deputy Director

Deep Draft Navigation PCX

PEER REVIEW PLAN FOR

TYBEE ISLAND CHANNEL IMPACTS NAVIGATION STUDY MARCH 2010

For questions or comments regarding this Peer Review Plan, please contact:

Name	Title	Telephone	E-mail
Margarett	Project	912-652-5320	margarett.mcintosh@usace.army.mil
McIntosh	Manager		

THE INFORMATION CONTAINED IN THIS PEER REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

PEER REVIEW PLAN TYBEE ISLAND CHANNEL IMPACTS NAVIGATION STUDY

TYBEE ISLAND, GEORGIA

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DRAFT PEER REVIEW PLAN FOR

TYBEE ISLAND CHANNEL IMPACTS NAVIGATION STUDY MARCH 2010

1. PURPOSE

This Peer Review Plan (RP) provides a technical peer review mechanism ensuring that quality products are developed during the course of the study by the Savannah District (SAS). This RP is a component of the latest Project Management Plan (PMP). All processes, quality control, quality assurance, and policy review will be conducted to complement each other producing a review process that identifies and resolves technical and policy issues during the course of the study and not during the final study stages.

The RP is intended to describe the processes that will be implemented to (independently from the Project Team) evaluate the technical sufficiency of the planning study. The RP is a collaborative product of the Project Delivery Team (PDT) and the National Deep Draft Navigation Planning Center of Expertise (DDNPCX). The DDNPCX shall manage the peer review processes, which for this study includes Agency Technical Reviews (ATR) and an Independent External Peer Review (IEPR). The home district shall manage the District Quality Control (DQC) reviews. The RP will describe the level of review needed and detail how that review will be performed. The components of this RP were developed pursuant to the requirements of EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

The recommendation of the Feasibility Report will require Congressional authorization for implementation. This is a navigation study and thus, it is a single purpose study.

District Quality Control is an internal review performed by the technical PDT to review basic science and engineering work according to the District and Major Subordinate Command (MSC) Quality Management Plan.

The Agency Technical Review is a critical examination by a qualified person or team, predominantly within the US Army Corps of Engineers (Corps), which was not involved in the day-to-day technical work required to prepare a decision document. ATR is intended to confirm that such work was performed in accordance with clearly established professional principles, practices, codes and criteria informed by Engineering Regulation (ER) 1105-2-100.

The Independent External Peer Review is performed in addition to ATR, and is added to the Corps existing review process in special cases where the risk and magnitude of the proposed project warrants critical examination by a qualified person or team outside of the Corps. IEPR will be used where the analysis are based on novel methods, presents

complex challenges for interpretation, contains precedent-setting methods or modes, presents conclusions that are likely to change prevailing practices, or is likely to affect policy decisions that have a significant impact. In the absence of a technical requirement, high project cost by itself may necessitate IEPR.

2. PROJECT/STUDY BACKGROUND

2.1 Project Purpose

The purpose of the study is to identify the impacts of the Savannah Harbor Federal Navigation project to the shoreline and shelf of Tybee Island, Georgia. Secondarily, the Corps will determine if the existing Tybee Island Shore Protection Project should be modified to include shore protection for the north end of Tybee Island from the North Terminal Groin to the mouth of Lazaretto Creek. Tybee Island is a 3.5-mile long barrier island located 18 miles east of Savannah, Georgia at the mouth of the Savannah River on the Atlantic Ocean. The City of Tybee Island, Georgia, is the non-Federal partner on the feasibility study. The non-Federal sponsor has formally requested that we consider as an option in the study scope, modification of the existing Shore Protection project to include shore protection for the north end of Tybee Island.

2.2 Project Authorization

Section 101(c) of WRDA 1986 is the basis of the authority to assign project costs for harbor mitigation by modifying the existing shore protection project cost apportionment.

Authorization for the channel impacts feasibility study was included in the Fiscal Year 2004 Energy and Water Development Appropriations Conference Report (House Report 108-357) and House Appropriations Committee Report House Report (108-212).

In May 2004, the Assistant Secretary of the Army for Civil Works provided guidance in the form of a Video Teleconference (VTC) Factsheet regarding the FY04 funding allocation. The guidance directed Savannah District to complete a Section 905(b) analysis and develop a Project Management Plan for the feasibility phase of the study to (1) examine the North End of Tybee Beach for inclusion into the Tybee Island shore protection project; and (2) examine the possible impacts on the Tybee Island shoreline that may occur as a result of the continued operation and maintenance of the Savannah Harbor Federal navigation channel.

The purpose of the 905(b) analysis, the results of which were documented in a reconnaissance report, was to determine if there was a Federal interest to continue feasibility phase investigations. The reconnaissance report studied if the existing Tybee Island Shore Protection Project should be modified to include shore protection for the north end of Tybee Island. It also studied if the Savannah Harbor Deep Draft Navigation Project was adversely impacting or has in the past adversely impacted the shores of Tybee Island, including both the shoreline protected by the Tybee Island Shore Protection project and the shoreline along the north end of Tybee Island. The reconnaissance report recommended that the study should proceed into the feasibility

phase. The South Atlantic Division approved the reconnaissance report in a memorandum to the Savannah District Commander, dated 2 November 2004.

2.3 Project Description

The Tybee Island Channel Impacts feasibility study has been broken into two phases. Phase 1 was completed in April of 2008, and this Review Plan applies to Phase 2 of the study that has yet to be completed. During Phase 1, the Engineer Research and Development Center (ERDC) conducted a study for Savannah District to determine if the Savannah Harbor Federal Navigation Project is responsible for any of the erosion on the Tybee Island shelf and shoreline. Phase 2 of the study will consist of formulating, evaluating, and recommending mitigation alternative(s) to compensate for the loss of sand quantified in the ERDC Technical Report that was completed during Phase 1. The ERDC Technical Report indicated that the Savannah Harbor Federal Navigation Project is responsible for 70 to 80% of erosion to the Tybee Island shelf and shoreline.

The City of Tybee Island, Georgia, is the non-Federal sponsor for both phases of this feasibility study. The Project Delivery Team (PDT) determined two potential Phase 2 options to study within the existing authorization, dependent upon agreement with the non-Federal sponsor and availability of funds. The options will be referred to as "Option A" and "Option B" and consist of the following: Option A – Studying only the Savannah Harbor Navigation Channel Impacts to Tybee Island shoreline; and Option B – (1) Studying the Savannah Harbor Navigation Channel Impacts to Tybee Island shelf and shoreline, and (2) Assessment of North Beach for inclusion in the Federal Tybee Island Storm Damage Reduction Project. If the non-Federal sponsor and PDT elect to conduct the study elements in Option A, then an Environmental Assessment will be required and no IEPR is warranted. If, however, Option B is studied, then an Environmental Impact Statement (EIS) will be necessary and an IEPR will be required.

3. THE PROJECT DELIVERY TEAM (PDT)

The PDT is an interagency team of individuals directly involved in developing the decision document. See table below for a list of disciplines that will be represented on the PDT.

Project Delivery Team

Discipline	Office/Agency
Project Manager	CESAS-PM-C
Plan Formulator	CESAS-PD
Biologist	CESAS-PD
Economist	CESAS-PD
Cultural Resources	CESAS-PD
Real Estate	CESAS-RE
EN Analysis & Design	CESAS-EN
Coastal Engineer	CESAS-EN
Navigation Design Technical Expert	CESAS-EN
Construction QA Representative	CESAS-OP
Navigation O&M Representative	CESAS-OP
Cost Estimating	CESAS-EN/CESAW-EN
Tybee Island Consultant	Tybee Island
Tybee Island City Manager	Tybee Island
Tybee Island Beach Task Force	Tybee Island
Representative	

4. PEER REVIEWS

There are three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR).

Dependent on agreement with the non-Federal sponsor, this study will be conducted as one of two options, Option A or Option B, as described above. In both cases, the DQC will be managed by Savannah District in accordance with the Major Subordinate Command and the Savannah District Quality Management Plans. The ATR and IEPR, if necessary, will be conducted and managed by the Deep Draft Navigation Planning Center of Expertise (DDN PCX) using Dr. Checks. Due to the nature of the work proposed in this study and the presence of a Hurricane and Storm Damage Reduction project on Tybee Island, the DDN PCX shall coordinate with the Hurricane and Storm Damage Reduction Planning Center of Expertise as well.

4.1 District Quality Control (DQC)

District Quality Control 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). All studies undergo DQC. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc.

Quality checks and reviews occur during the development process and are carried out as a routine management practice. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts.

PDT reviews are performed by members of the PDT to ensure consistency and effective coordination across all project disciplines. Additionally, the PDT is responsible for a complete reading of any reports and accompanying appendices prepared by or for the PDT to assure the overall coherence and integrity of the report, technical appendices, and the recommendations before approval by the District Commander.

4.2 Agency Technical Review (ATR)

Agency Technical Review is an in-depth review managed by the DDNPCX and conducted by a qualified team (outside the home District) that has not been involved in the study. The ATR teams are comprised of individuals from all the technical disciplines that were significant in the preparation of the report and whose technical expertise is commensurate with the expertise of those who comprise the Project Delivery Team. The ATR lead should be from outside the home MSC. The ATR team reviews work products to assure the proper application of established criteria, regulations, laws, codes, principles and professional practices. Reviewers will be individuals that have not worked on the study and otherwise be free from conflicts of interest related to the proposed project.

ATR is performed at key points in the study process to ensure the proper application of appropriate regulations and professional procedures. ATRs will be performed at the Feasibility Scoping Meeting (FSM), Alternative Formulation Briefing (AFB), and on both the draft and final decision and National Environmental Policy Act (NEPA) documents.

At this time, \$155,000 has been identified to fund the four independent ATRs for either Option A or B. Additionally, \$205,000 has been identified to fund the IEPR for Option B.

The following disciplines will participate in the Agency Technical Review. The ATRs would apply the best and most appropriate nationally available expertise, science, and engineering technology for planning of Deep-Draft Navigation and Shore Protection Projects.

- (1) ATR Lead/Plan Formulation The ATR Lead would also act as the plan formulation reviewer. The ATR Lead/plan formulation reviewer shall have recent experience in conducting the plan formulation process for shore protection studies, as well as navigation studies, including identifying goals and objectives, recognizing planning constraints, distinguishing project alternatives, screening and evaluating project alternatives and selecting a recommended plan.
- (2) Environmental The ATR team member shall be able to review the Environmental Assessment and possible Environmental Impact Statement and be familiar

with deep-draft navigation and shore protection projects. This person shall have worked on at least 1 shore protection study in the last 5 years.

- (3) Economics The ATR team member shall be an Economist and have recent experience working on a deep-draft navigation and shore protection studies.
- (4) Hydraulics and Hydrology The ATR team member will have a good understanding of deep-draft navigation projects, shore protection studies, and the required modeling. This person shall be a Coastal Engineer with at least 5 years related experience.
- (5) Cost Engineering The cost estimator will review the Rough Order Magnitudes (ROM) of the alternatives and also the final costs for the selected plan. A Cost Engineering Directory of Expertise (Cost DX) has been established at the Corps Walla Walla District (NWW). The Cost Engineering DX will review the final cost estimate and construction schedule.
 - (6) Real Estate A Real Estate specialist will be needed as a part of the ATR and this person shall have recent experience with shore protection studies.
 - (7) Operations The ATR team member would be a Construction Quality Assurance representative familiar with deep-draft navigation projects and associated dredging operations.

4.3 Independent External Peer Review (IEPR)

Independent External Peer Review is the most independent level of review. It is applied when the project meets certain criteria of risk and magnitude that warrant review by an outside team. IEPR is conducted by a qualified team from outside USACE and is managed by an outside eligible organization.

Option A: An IEPR may be required because of the following:

While this study may not require an Environmental Impact Statement (EIS), the Environmental Assessment for the project may have significant interagency interest. The study is not expected to have significant economic and environmental effects to the nation, and it does not involve significant threat to human life, and the estimated total project cost is less than \$45 million. It is not likely to contain influential scientific information, be highly controversial, or involve use of novel methods that are likely to change prevailing practices.

A decision regarding whether or not an IEPR will be required for Option A will be made at the Alternative Formulation Briefing. At that time, HQUSACE will evaluate PDT-provided documentation to justify an exclusion.

Option B: An IEPR is required because it is expected that an EIS would be prepared with this option.

Option B would require the preparation of an EIS because evaluation of the addition of North Beach to the existing Shore Protection project is likely to have significant interagency interest and may have significant environmental and economic effects to the nation.

See table below for summary of review schedule and costs.

Review Schedule and Costs

Study Element	Type of Review	Option A	Option B	Approximate Cost*
Feasibility Scoping Meeting (FSM) – only Lead ATR is required to attend this meeting	ATR	May 2010	May 2010	\$5,000
Alternative Formulation Briefing (AFB)	ATR	January 2012	June 2012	\$50,000
Draft Report	ATR	June 2012	December 2012	\$50,000
Draft Report	IEPR	December 2012	June 2013	\$205,000
Final Report	ATR	August 2012	August 2013	\$50,000

At this point, the estimated total construction cost is unknown but not expected to exceed \$10,000,000.

7. POLICY AND LEGAL COMPLIANCE REVIEWS

All decision documents will be reviewed throughout the study process for their compliance with law and policy, typically at the milestones outlined in the table above and prior to public release to ensure that public expectations regarding Federal support are reasonable. These reviews culminate in a Washington-level determination on whether the report recommendations warrant approval and forwarding to higher authority. Preliminary policy reviews shall be conducted by the home District. The final policy compliance review conducted prior to public release is conducted by Headquarters, USACE unless otherwise delegated. The DQC and ATR technical review efforts are to augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents. The home District Office of Counsel is responsible for legal reviews.

8. MODEL CERTIFICATION AND APPROVAL

^{*}Contracts for IEPR Panels are implemented at 100% Federal cost up to \$500,000. All other costs are cost-shared in accordance with project purpose(s) and phase of work.

Both Planning models and Engineering models, will be used on this study and are subject to PCX and HQ approval. All Planning models must be approved and certified for use by the appropriate PCX per EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005. Engineering models are subject to certification through the Science and Engineering Technology (SET) Initiative. Certified models are posted on the Technical Excellence Network (TEN) at https://ten.usace.army.mil/TechExNet.aspx.

Models to be used in this study, regardless of which study option is pursued, are expected to include Beach FX, GENESIS, SBEACH, and GTRAN. The economics model, Beach FX, is a Corps-developed national model that is allowed for use on the certified models list and does not require certification specific to this individual project. The application and use of the model will be subject to DQC, ATR, and, if appropriate, IEPR. Two of the Engineering models used in this study, SBEACH and GENESIS, are included on the list of certified models and are Community of Practice preferred. GTRAN is not currently on the list of certified models, but it is expected to be certified prior to its use as part of the study. The application and use of the engineering models will be subject to DQC, ATR, and, if appropriate, IEPR.

9. PUBLIC PARTICIPATION

The PDT will consider all public comments from the first public workshop while formulating the alternatives and also will consider the public's opinions while preparing the report.

The District is responsible for providing an opportunity for public review and for considering those public comments in the draft and final reports.

10. RISK MANAGEMENT

The proposed study options and their potential recommendations for modifications to the Savannah Harbor deep-draft navigation project do not include risks that are greater than those risks that are normally expected to be encountered during the lifetime of the project.

11. NON-FEDERAL SPONSOR'S COST SHARE AND WORK-IN-KIND CONTRIBUTIONS

This study is being conducted as a typical investigation at the standard 50 percent federal, 50 percent non-federal cost share. The non-Federal share of the study is expected to be provided primarily through cash. Work-In-Kind contributions, not to exceed those shown in the Feasibility Cost Share Agreement, are allowed. As the non-Federal sponsor, Tybee Island, GA, submits work products, they are reviewed for applicability to

this study and approved by the Project Manager with input from the appropriate technical staff on the PDT. The appropriate credit is then recorded by the Resource Management Office of Savannah District. All Work-In-Kind work products will be submitted at appropriate milestones for ATR.

Review Plan Checklist For Decision Documents

Date: 12 APRIL 2010
Originating District: SAS

Project/Study Title: Tybee Island Channel Impacts Option A, Navigation Study

PWI #:

District POC: Margarett McIntosh PCX Reviewer: Bernard Moseby

Please fill out this checklist and submit with the draft Review Plan when coordinating with the appropriate PCX. Any evaluation boxes checked 'No' indicate the RP may not comply with EC 1165-2-209 (31 Jan 2010) and should be explained. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan.

	REQUIREMENT	REFERENCE	EVALUATION
1. Is the Review Plan (RP) a stand alone document?		EC 1165-2-209 Appendix B	Yes ⊠ No □
a.	Does it include a cover page identifying it as a RP and listing the project/study title,	EC 1165-2-209	a. Yes ⊠ No □
	originating district or office, and date of the plan?		b. Yes⊠ No □
h	Does it include a table of contents?	EC 1165-2-209	c. Yes ⊠ No □
			d. Yes ⊠ No □
C.	Is the purpose of the RP clearly stated and EC 1165-2-209 referenced?	EC 1165-2-209	e. Yes⊠ No□
Ч	Does it reference the Project Management	EC 1165-2-209	f. Yes⊠ No□
ď.	Plan (PMP) of which the RP is a	20 1100 2 200	
	component?		g. Yes 🛛 No 🗌
e.	Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent Technical Peer Review (IEPR)?	EC 1165-2-209	Comments:
f.	Does it include a paragraph stating the title, subject, and purpose of the decision document to be reviewed?	EC 1165-2-209	
g.	Does it list the names and disciplines of the Project Delivery Team (PDT)?*	EC 1165-2-209	
	It is highly recommended to put all team		
appen	er names and contact information in an dix for easy updating as team members e or the RP is updated.		

2. Is the RP detailed enough to assess the necessary level and focus of peer review?	EC 1165-2-209	Yes ⊠ No □
a. Does it indicate which parts of the study will likely be challenging?	EC 1165-2-209	a. Yes ⊠ No □
will interly be entailed girlig.		b. Yes⊠ No □
b. Does it provide a preliminary assessment of where the project risks are likely to	EC 1165-2-209	c. Yes ⊠ No □
occur and what the magnitude of those risks might be?		d. Yes ☐ No ⊠
c. Does it indicate if the project/study will	EC 1165-2-209	e. Yes ☐ No ⊠
include an environmental impact statement (EIS)?		Comments: Option A includes studying ways to mitigate from the
Is an EIS included? Yes ☐ No ☒ If yes, IEPR is required.		Savannah Harbor Navigation Project to
d. Does it address if the project report is likely to contain influential scientific information or be a highly influential scientific assessment?	EC 1165-2-209	Tybee Island. Since it is an ongiong navigation project, the highest risk is continued erosion along Tybee Island. Based on the 2008 EA
Is it likely? Yes ☐ No ⊠ If yes, IEPR is required.		that was completed, we do not expect any
e. Does it address if the project is likely to have significant economic, environmental, and social affects to the nation, such as (but not limited to):	EC 1165-2-209	negative impacts to the surrounding environment. A new EA will be performed.
 more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources? 	EC 1165-2-209	
 substantial adverse impacts on fish and wildlife species or their habitat, prior to implementation of mitigation? 	EC 1165-2-209	
 more than negligible adverse impact on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation? 	EC 1165-2-209	
Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		
f. Does it address if the project/study is likely to have significant interagency interest?	EC 1165-2-209	

Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		
g. Does it address if the project/study likely involves significant threat to human life (safety assurance)?	EC 1165-2-209	
Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		
h. Does it provide an estimated total project cost?	EC 1165-2-209	
What is the estimated cost: <u>unknown at this</u> <u>time, but not expected to exceed \$10,000,000</u> (best current estimate; may be a range)		f. Yes ⊠ No □ g. Yes ⊠ No □
Is it > \$45 million? Yes \square No \boxtimes If yes, IEPR is required.		h. Yes No
i. Does it address if the project/study will likely be highly controversial, such as if there will be a significant public dispute as to the size, nature, or effects of the project or to the economic or environmental costs or benefits of the project?	EC 1165-2-209	i. Yes ☐ No ☐ j. Yes ☐ No ☐ Comments: The sponsor could desagree
Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		with the Corps' recommended action
j. Does it address if the information in the decision document will likely be based on novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?	EC 1165-2-209	
Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		
3. Does the RP define the appropriate level of peer review for the project/study?	EC 1165-2-209	Yes ⊠ No □
a. Does it state that DQC will be managed by the home district in accordance with the Major Subordinate Command (MSC) and district Quality Management Plans?	EC 1165-2-209	a. Yes ⊠ No □
b. Does it state that ATR will be conducted or managed by the lead PCX?	EC 1165-2-209	b. Yes 🛛 No 🗌

		c. Yes ⊠ No □
c. Does it state whether IEPR will be performed?	EC 1165-2-209	d. Yes 🛛 No 🗌
Will IEPR be performed? Yes ☐ No 🏻		e. Yes \(\subseteq \text{No} \subseteq \n/a \text{\text{\$\subseteq}}
d. Does it provide a defensible rationale for the decision on IEPR?	EC 1165-2-209	Comments:
e. Does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers?		
4. Does the RP explain how ATR will be accomplished?	EC 1165-2-209	Yes ⊠ No □
a. Does it identify the anticipated number of reviewers?	EC 1165-2-209	a. Yes 🛛 No 🗌
Teviewers:		b. Yes⊠ No □
b. Does it provide a succinct description of the primary disciplines or expertise needed	EC 1165-2-209	c. Yes ⊠ No □
for the review (not simply a list of disciplines)?	LO 1103-2-209	d. Yes⊠ No □
c. Does it indicate that ATR team members		e. Yes⊠ No □
will be from outside the home district?	EC 1165-2-209	f. Yes 🗌 No 🗌 n/a 🖂
d. Does it indicate that the ATR team leader will be from outside the home MSC?	EC 1165-2-209	Comments:
e. Does the RP state that the lead PCX is responsible for identifying the ATR team members and indicate if candidates will be nominated by the home district/MSC?	EC 1165-2-209	
f. If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?*	EC 1165-2-209	
*Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.		
5. Does the RP explain how IEPR will be accomplished?	EC 1165-2-209	Yes ☐ No ☐ n/a ⊠
a. Does it identify the anticipated number of	EC 1165-2-209	a. Yes 🗌 No 🗌

	reviewers?		b. Yes 🗌 No 🗍
b.	Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)?	EC 1165-2-209	c. Yes No d. Yes No
C.	Does it indicate that the IEPR reviewers will be selected by an Outside Eligible Organization and if candidates will be nominated by the Corps of Engineers?	EC 1165-2-209	Comments: An IEPR is not necessary
d.	Does it indicate the IEPR will address all the underlying planning, safety assurance, engineering, economic, and environmental analyses, not just one aspect of the project?	EC 1165-2-209	
	es the RP address peer review of sor in-kind contributions?	EC 1165-2-209	Yes ⊠ No □
a.	Does the RP list the expected in-kind contributions to be provided by the sponsor?	EC 1165-2-209	a. Yes ⊠ No □ b. Yes ⊠ No □ n/a □
b.	Does it explain how peer review will be accomplished for those in-kind contributions?		Comments:
7. Do	accomplished for those in-kind	EC 1165-2-209	Comments:
7. Do	accomplished for those in-kind contributions? es the RP address how the peer review	EC 1165-2-209 EC 1165-2-209	
7. Do will be	accomplished for those in-kind contributions? es the RP address how the peer review documented? Does the RP address the requirement to document ATR and IEPR comments using		Yes No
7. Do will be	accomplished for those in-kind contributions? es the RP address how the peer review edocumented? Does the RP address the requirement to document ATR and IEPR comments using DrChecks? Does the RP explain how the IEPR will be	EC 1165-2-209	Yes No \(\text{No } \) a. Yes \(\text{No } \text{No } \) b. Yes \(\text{No } \text{No } \)

8. Does the RP address Policy Compliance and Legal Review?	EC 1165-2-209	Yes ⊠ No □
		Comments:
9. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?	EC 1165-2-209	Yes ⊠ No □
 a. Does it provide a schedule for ATR including review of the Feasibility Scoping Meeting (FSM) materials, Alternative Formulation Briefing (AFB) materials, draft report, and final report? b. Does it include interim ATR reviews for key technical products? c. Does it present the timing and sequencing for IEPR? d. Does it include cost estimates for the peer reviews? 	EC 1165-2-209 EC 1165-2-209 EC 1165-2-209 EC 1165-2-209	a. Yes No D b. Yes No D c. Yes No D d. Yes No D Comments:
 10. Does the RP indicate the study will address Safety Assurance factors? Factors to be considered include: Where failure leads to significant threat to human life Novel methods\complexity\ precedent-setting models\policy changing conclusions Innovative materials or techniques Design lacks redundancy, resiliency of robustness Unique construction sequence or acquisition plans Reduced\overlapping design construction schedule 	EC 1103-2-209	Yes No n/a Comments: There is no expected significant threat to human life.
11. Does the RP address model certification requirements?	EC 1165-2-209	Yes ⊠ No □
a. Does it list the models and data anticipated to be used in developing recommendations (including mitigation models)?	EC 1165-2-209	a. Yes ⊠ No □
b. Does it indicate the certification/approval status of those models and if certification or approval of any model(s) will be needed?	EC 1165-2-209 EC 1165-2-209	b. Yes No C

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C.	If needed, does the RP propose the appropriate level of certification/approval for the model(s) and how it will be accomplished?	EC 1165-2-209	Comments:
	pes the RP address opportunities for participation?	EC 1165-2-209	Yes 🛛 No 🗌
a.	Does it indicate how and when there will be opportunities for public comment on the decision document?	EC 1165-2-209	a. Yes ⊠ No □ b. Yes ⊠ No □
b.	Does it indicate when significant and relevant public comments will be provided to reviewers before they conduct their	EC 1165-2-209	c. Yes No No
C.	review? Does it address whether the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers?	EC 1165-2-209	Comments: No external peer reviewers are anticipated.
d.	Does the RP list points of contact at the home district and the lead PCX for inquiries about the RP?	EC 1165-2-209	
	oes the RP address coordination with the priate Planning Centers of Expertise?	EC 1165-2-209	Yes 🛛 No 🗌
a.	Does it state if the project is single or multi- purpose? Single ☑ Multi ☐ List purposes: Deep Draft Navigation	EC 1165-2-209	a. Yes No D
b.	Does it identify the lead PCX for peer review? Lead PCX: DD	EC 1165-2-209	c. Yes No n/a Comments:
C.	If multi-purpose, has the lead PCX coordinated the review of the RP with the other PCXs as appropriate?	EC 1165-2-209	
Cost E in Wal estima contin	Des the RP address coordination with the Engineering Directory of Expertise (DX) la Walla District for ATR of cost ates, construction schedules and agencies for all documents requiring essional authorization?	EC 1165-2-209	Yes ⊠ No □
a.	Does it state if the decision document will require Congressional authorization?	EC 1165-2-209	a. Yes ⊠ No □

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b. If Congressional authorization is required, does the state that coordination will occur with the Cost Engineering DX?	EC 1165-2-209	b. Yes ⊠ No □ n/a □ Comments:		
15. Other Considerations: This checklist highlights the minimum requirements for an RP based on EC 1165-2-209. Additional factors to consider in preparation of the RP include, but may not be limited to:		Comments: None of these are applicable to this deep draft navigation project.		
a. Is a request from a State Governor or the head of a Federal or state agency to conduct IEPR likely?	EC 1165-2-209			
 b. Is the home district expecting to submit a waiver to exclude the project study from IEPR? 	EC 1165-2-209			
c. Are there additional Peer Review requirements specific to the home MSC or district (as described in the Quality Management Plan for the MSC or district)?	EC 1165-2-209			
d. Are there additional Peer Review needs unique to the project study?	EC 1165-2-209			
Detailed Comments and Back check:				

Review Plan Checklist For Decision Documents

Date: 12 APRIL 2010
Originating District: SAS

Project/Study Title: Tybee Island Channel Impacts Option B, Navigation Study

PWI #:

District POC: Margarett McIntosh PCX Reviewer: Bernard Moseby

Please fill out this checklist and submit with the draft Review Plan when coordinating with the appropriate PCX. Any evaluation boxes checked 'No' indicate the RP may not comply with EC 1165-2-209 (31 Jan 2010) and should be explained. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan.

	REQUIREMENT	REFERENCE	EVALUATION
1. Is the Review Plan (RP) a stand alone document?		EC 1165-2-209 Appendix B	Yes ⊠ No □
a.	Does it include a cover page identifying it as a RP and listing the project/study title,	EC 1165-2-209	a. Yes ⊠ No □
	originating district or office, and date of the plan?		b. Yes⊠ No □
h	Does it include a table of contents?	EC 1165-2-209	c. Yes ⊠ No □
			d. Yes ⊠ No □
C.	Is the purpose of the RP clearly stated and EC 1165-2-209 referenced?	EC 1165-2-209	e. Yes⊠ No□
Ч	Does it reference the Project Management	EC 1165-2-209	f. Yes⊠ No□
ď.	Plan (PMP) of which the RP is a	LC 1103-2-209	
	component?		g. Yes 🛛 No 🗌
e.	Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent Technical Peer Review (IEPR)?	EC 1165-2-209	Comments:
f.	Does it include a paragraph stating the title, subject, and purpose of the decision document to be reviewed?	EC 1165-2-209	
g.	Does it list the names and disciplines of the Project Delivery Team (PDT)?*	EC 1165-2-209	
*Note: It is highly recommended to put all team			
appen	er names and contact information in an dix for easy updating as team members e or the RP is updated.		

2. Is the RP detailed enough to assess the necessary level and focus of peer review?	EC 1165-2-209	Yes ⊠ No □
a. Does it indicate which parts of the study will likely be challenging?	EC 1165-2-209	a. Yes ⊠ No □
		b. Yes⊠ No □
 b. Does it provide a preliminary assessment of where the project risks are likely to 	EC 1165-2-209	c. Yes ⊠ No □
occur and what the magnitude of those risks might be?		d. Yes No
c. Does it indicate if the project/study will	EC 1165-2-209	e. Yes No
include an environmental impact statement (EIS)?		Comments: Option B explores mitigating
Is an EIS included? Yes ⊠ No □		impacts from the Savannah Harbor
If yes, IEPR is required.d. Does it address if the project report is likely	EC 1165-2-209	Navigation Project to Tybee Island plus that of North Beach. This is
to contain influential scientific information or be a highly influential scientific	20 1100 2 200	a navigation project, the highest risk is continued
assessment?		erosion along the Tybee shores. The EIS will
Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		address these concerns.
e. Does it address if the project is likely to have significant economic, environmental, and social affects to the nation, such as (but not limited to):	EC 1165-2-209	
 more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources? 	EC 1165-2-209	
 substantial adverse impacts on fish and wildlife species or their habitat, prior to implementation of mitigation? 	EC 1165-2-209	
 more than negligible adverse impact on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation? 	EC 1165-2-209	
Is it likely? Yes ☐ No ⊠ If yes, IEPR is required.		
f. Does it address if the project/study is likely to have significant interagency interest?	EC 1165-2-209	

Is it likely? Yes ☐ No ⊠ If yes, IEPR is required.		
g. Does it address if the project/study likely involves significant threat to human life (safety assurance)?	EC 1165-2-209	
Is it likely? Yes \square No \boxtimes If yes, IEPR is required.		
h. Does it provide an estimated total project cost?	EC 1165-2-209	f. Yes ⊠ No □ g. Yes ⊠ No □
		h. Yes⊠ No □
What is the estimated cost: <u>unknown at this</u> <u>time</u> , but is not expected to exceed \$10,000,000		
(best current estimate; may be a range)		i. Yes ☐ No ⊠
Is it > \$45 million? Yes \square No \boxtimes If yes, IEPR is required.		j. Yes⊠ No □
 i. Does it address if the project/study will likely be highly controversial, such as if there will be a significant public dispute as to the size, nature, or effects of the project or to the economic or environmental costs or benefits of the project? 	EC 1165-2-209	Comments: The sponsor could desagree with the Corps' recommended action
Is it likely? Yes ⊠ No □ If yes, IEPR is required.		
j. Does it address if the information in the decision document will likely be based on novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?	EC 1165-2-209	
Is it likely? Yes ☐ No ⊠ If yes, IEPR is required.		
3. Does the RP define the appropriate level of peer review for the project/study?	EC 1165-2-209	Yes ⊠ No □
Does it state that DQC will be managed by the home district in accordance with the Major Subordinate Command (MSC) and district Quality Management Plans?	EC 1165-2-209	a. Yes ⊠ No □
b. Does it state that ATR will be conducted or managed by the lead PCX?	EC 1165-2-209	b. Yes ⊠ No □

		c. Yes ⊠ No □
c. Does it state whether IEPR will be performed?	EC 1165-2-209	d. Yes 🛛 No 🗌
Will IEPR be performed? Yes ⊠ No □		e. Yes No n/a
d. Does it provide a defensible rationale for the decision on IEPR?	EC 1165-2-209	Comments:
e. Does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers?		
4. Does the RP explain how ATR will be accomplished?	EC 1165-2-209	Yes ⊠ No □
a. Does it identify the anticipated number of reviewers?	EC 1165-2-209	a. Yes 🛛 No 🗌
reviewers:		b. Yes⊠ No □
 Does it provide a succinct description of the primary disciplines or expertise needed 	EC 1165-2-209	c. Yes ⊠ No □
for the review (not simply a list of disciplines)?	EC 1103-2-209	d. Yes⊠ No □
c. Does it indicate that ATR team members		e. Yes⊠ No □
will be from outside the home district?	EC 1165-2-209	f. Yes 🗌 No 🗌 n/a 🖂
d. Does it indicate that the ATR team leader will be from outside the home MSC?	EC 1165-2-209	Comments:
e. Does the RP state that the lead PCX is responsible for identifying the ATR team members and indicate if candidates will be nominated by the home district/MSC?	EC 1165-2-209	
f. If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?*	EC 1165-2-209	
*Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.		
5. Does the RP explain how IEPR will be accomplished?	EC 1165-2-209	Yes ☐ No ☐ n/a ⊠
a. Does it identify the anticipated number of	EC 1165-2-209	a. Yes 🗌 No 🗌

	reviewers?		b. Yes 🗌 No 🗌
b.	Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)?	EC 1165-2-209	c. Yes No d. Yes No
C.	Does it indicate that the IEPR reviewers will be selected by an Outside Eligible Organization and if candidates will be nominated by the Corps of Engineers?	EC 1165-2-209	Comments: An IEPR is necessary for Option B, as the Savannah District will perform an EIS
d.	Does it indicate the IEPR will address all the underlying planning, safety assurance, engineering, economic, and environmental analyses, not just one aspect of the project?	EC 1165-2-209	
	es the RP address peer review of sor in-kind contributions?	EC 1165-2-209	Yes ⊠ No □
a.	Does the RP list the expected in-kind contributions to be provided by the sponsor?	EC 1165-2-209	a. Yes ⊠ No □ b. Yes ⊠ No □ n/a □
b.	Does it explain how peer review will be accomplished for those in-kind contributions?		Comments:
7. Do	accomplished for those in-kind	EC 1165-2-209	Comments:
7. Do will be	accomplished for those in-kind contributions? es the RP address how the peer review	EC 1165-2-209 EC 1165-2-209	
7. Do will be	accomplished for those in-kind contributions? es the RP address how the peer review documented? Does the RP address the requirement to document ATR and IEPR comments using		Yes No
7. Do will be	accomplished for those in-kind contributions? es the RP address how the peer review documented? Does the RP address the requirement to document ATR and IEPR comments using DrChecks? Does the RP explain how the IEPR will be	EC 1165-2-209	Yes No \(\square \) a. Yes \(\square \) No \(\square \) b. Yes \(\square \) No \(\square \) n/a \(\square \)

8. Does the RP address Policy Compliance and Legal Review?	EC 1165-2-209	Yes ⊠ No □
		Comments:
9. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?	EC 1165-2-209	Yes ⊠ No □
 a. Does it provide a schedule for ATR including review of the Feasibility Scoping Meeting (FSM) materials, Alternative Formulation Briefing (AFB) materials, draft report, and final report? b. Does it include interim ATR reviews for key technical products? c. Does it present the timing and sequencing for IEPR? d. Does it include cost estimates for the peer reviews? 	EC 1165-2-209 EC 1165-2-209 EC 1165-2-209	a. Yes No D b. Yes No D c. Yes No D n/a D d. Yes No Comments:
 10. Does the RP indicate the study will address Safety Assurance factors? Factors to be considered include: Where failure leads to significant threat to human life Novel methods\complexity\ precedent-setting models\policy changing conclusions Innovative materials or techniques Design lacks redundancy, resiliency of robustness Unique construction sequence or acquisition plans Reduced\overlapping design construction schedule 	EC 1165-2-209	Yes No n/a Comments: There is no expected significant threat to human life.
Does the RP address model certification requirements? Does it list the models and data anticipated to be used in developing recommendations (including mitigation models)?	EC 1165-2-209 EC 1165-2-209	Yes ⊠ No □ a. Yes ⊠ No □
 b. Does it indicate the certification/approval status of those models and if certification or approval of any model(s) will be needed? 	EC 1165-2-209 EC 1165-2-209	b. Yes No C

c. If needed, does the RP propose the appropriate level of certification/approval for the model(s) and how it will be accomplished?	EC 1165-2-209	Comments:
12. Does the RP address opportunities for public participation?	EC 1165-2-209	Yes 🛛 No 🗌
Does it indicate how and when there will be opportunities for public comment on the	EC 1165-2-209	a. Yes ⊠ No □
decision document?		b. Yes ⊠ No □
b. Does it indicate when significant and relevant public comments will be provided	EC 1165-2-209	c. Yes ☐ No ⊠
to reviewers before they conduct their review?	20 1103-2-203	d. Yes⊠ No □
c. Does it address whether the public,	EC 1165-2-209	Comments:
including scientific or professional societies, will be asked to nominate potential external peer reviewers?	20 1103 2 203	
d. Does the RP list points of contact at the home district and the lead PCX for inquiries about the RP?	EC 1165-2-209	
13. Does the RP address coordination with the appropriate Planning Centers of Expertise?	EC 1165-2-209	Yes ⊠ No □
a. Does it state if the project is single or multipurpose? Single ⊠ Multi □	EC 1165-2-209	a. Yes ⊠ No □
List purposes: Deep Draft Navigation		b. Yes⊠ No □
b. Does it identify the lead PCX for peer	EC 1165-2-209	c. Yes 🗌 No 🗌 n/a 🖂
review? Lead PCX: DD	20 1100 2 200	Comments:
c. If multi-purpose, has the lead PCX coordinated the review of the RP with the other PCXs as appropriate?	EC 1165-2-209	
14. Does the RP address coordination with the Cost Engineering Directory of Expertise (DX) in Walla Walla District for ATR of cost estimates, construction schedules and contingencies for all documents requiring Congressional authorization?	EC 1165-2-209	Yes 🖂 No 🗌
a. Does it state if the decision document will require Congressional authorization?	EC 1165-2-209	a. Yes 🛛 No 🗌

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b. If Congressional authorization is required, does the state that coordination will occur with the Cost Engineering DX?	EC 1165-2-209	b. Yes ⊠ No □ n/a □ Comments:	
15. Other Considerations: This checklist highlights the minimum requirements for an RP based on EC 1165-2-209. Additional factors to consider in preparation of the RP include, but may not be limited to:		Comments: None of these are applicable to this deep draft navigation project.	
a. Is a request from a State Governor or the head of a Federal or state agency to conduct IEPR likely?	EC 1165-2-209		
 b. Is the home district expecting to submit a waiver to exclude the project study from IEPR? 	EC 1165-2-209		
c. Are there additional Peer Review requirements specific to the home MSC or district (as described in the Quality Management Plan for the MSC or district)?	EC 1165-2-209		
d. Are there additional Peer Review needs unique to the project study?	EC 1165-2-209		
Detailed Comments and Back check:			