



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BALTIMORE DISTRICT
2 HOPKINS PLAZA
BALTIMORE, MD 21201

CENAB-PL-P (1200A)

05-Feb-2021

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, North Atlantic Division, CENAD-PD-X/Mr. Lawrence Cocchieri), 301 General Lee Avenue, Fort Hamilton Military Community, Brooklyn, NY 11252

SUBJECT: Request for Approval of the Baltimore Harbor Anchorages and Channels (BHAC) Modification of Seagirt Loop Channel, Maryland Feasibility Study Review Plan

1. References:

- a. Director of Civil Works Memorandum, 5 April 2019, Interim Guidance on Streamlining Independent External Peer Review (IEPR) for Improved Civil Works Product Delivery
 - b. Engineer Circular (EC)1165-2-217, Review Policy for Civil Works, 20 FEB 18
 - c. EC 1105-2-412, Planning, Assuring Quality of Planning Models, 31 MAR 11
 - d. Engineer Regulation (ER) 1110-2-12, Quality Management, 30 SEP 06
2. The Baltimore District (NAB) requests review and approval of the subject Review Plan (RP) (Attachment 1), prepared in accordance with References 1a-d. The RP complies with all applicable policies and provides a satisfactory approach to District Quality Control and Agency Technical Review of the Integrated Feasibility Report and Environmental Assessment and associated plan formulation process, engineering and environmental analyses, and other planning considerations.
3. The BHAC Modification study is not likely to include significant life safety concerns associated with the project or failure of the proposed project and is not likely to involve significant controversy based on proposed work in an existing navigation project. Additionally, the project is not expected to trigger requirements for mandatory Independent External Peer Review (IEPR) Type 1 or Type 2. NAB is requesting an exclusion from IEPR Type 1 and IEPR Type 2 is not warranted based on the nature of the study and proposed work. A memorandum for the record (MFR) was prepared documenting the risk informed decision on IEPR exclusion and is included in Attachment 2.

SUBJECT: Request for Approval of the Baltimore Harbor Anchorages and Channels (BHAC) Modification of Seagirt Loop Channel, Maryland Feasibility Study Review Plan

4. The RP was prepared in coordination with CENAD Planning Division Programs Directorate and the Deep Draft Navigation Planning Center of Expertise (DDNPCX). Ms. Kimberly Otto, DDNPCX, Review Manager, reviewed the RP and recommends the plan for approval (Attachment 3).
5. If you should require more information, the point of contact is Mr. Luis Santiago, Lead Planner, at luis.e.santiago@usace.army.mil or 410-962-6691



JOHN T. LITZ
COL, EN
Commanding

3 Attachments

1. Review Plan
2. NAB MFR for risk informed assessment for IEPR
3. DDNPCX Endorsement

ATTACHMENT 1: REVIEW PLAN

REVIEW PLAN

26 January 2021

1. OVERVIEW

- **Study Name:** Baltimore Harbor Anchorages and Channels Modification of Seagirt Loop Channel, Maryland Feasibility Study
- **Project Name:** Baltimore Harbor Anchorages and Channels (BHAC)
- **P2 Number:** 466610
- **Decision Document Type:** Integrated Feasibility Report and Environmental Assessment (EA)
- **Congressional Approval Required:** Yes
- **Project Type:** Single-Purpose Deep Draft Navigation (DDN)
- **District:** Baltimore (NAB)
- **Major Subordinate Command (MSC):** North Atlantic Division (NAD)
- **Review Management Organization (RMO):** Deep Draft Navigation Planning Center of Expertise (DDNPCX)
- **Review Plan Contacts:**
 - **District Contact:** Planner, (410) 962-6691
 - **MSC Contact:** Policy and Legal Compliance Review Manager, (347) 370-4514
 - **RMO Contact:** Review Manager, (251) 694-3842

2. KEY REVIEW PLAN DATES

Action	Date
Date of RMO Endorsement of Review Plan	19 January 2021
Date of MSC Approval of Review Plan	Pending
Date of IEPR Exclusion Approval	Pending
Has the Review Plan changed since PCX Endorsement?	N/A
Date of Last Review Plan Revision	NONE
Date of Review Plan Web Posting	Pending
Date of Congressional Notifications	Pending

3. MILESTONE SCHEDULE

Action	Scheduled	Actual	Complete
Feasibility Cost Sharing Agreement Signed		22 Sept 2020	Yes
Alternatives Milestone		21 Jan 2021	Yes
Tentatively Selected Plan	20 Sept 2021		No
Release Draft Report to Public	15 Nov 2021		No
Agency Decision Milestone	31 March 2022		No
Final Report Transmittal	22 Mar 2023		No
Chief's Report Signed	21 Sept 2023		No

4. BACKGROUND

- **Date of Background Information:** 26 January 2021

- **Review Plan References:**
 - Engineer Circular (EC) 1165-2-217, Review Policy for Civil Works (CW), 20 February 2018
 - EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2011
 - Engineer Regulation (ER) 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 November 2007
 - Chief's Memorandum, 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), 8 January 2018
 - Director's Policy Memorandum (DPM) CW Programs 2018-05, Improving Efficiency and Effectiveness in U.S. Army Corps of Engineers (USACE) CW Project Delivery (Planning Phase and Planning Activities), 3 May 2018
 - Director of Civil Works (DCW) Memorandum, Delegation of Model Certification, 11 May 2018
 - DCW Memorandum, Revised Delegation of Authority in Section 2034(a)(5)(A) of WRDA 2007, as amended (33 U.S.C. 2343), 7 June 2018
 - Planning Bulletin (PB) 2018-01, Feasibility Study Guidelines, 26 September 2018
 - DPM 2019-01, Policy and Legal Compliance Review, 9 January 2019
 - DCW Memorandum, Revised Implementation Guidance for Section 1001 of the Water Resources Reform and Development Act of 2014, Vertical Integration and Acceleration of Studies as Amended by Section 1330(b) of WRDA 2018, 25 March 2019
 - DCW Memorandum, Interim Guidance on Streamlining IEPR for Improved CW Product Delivery, 5 April 2019
 - Baltimore Harbor Anchorages and Channels Modification of Seagirt Loop Channel, Maryland, Feasibility Study Project Management Plan, Pending
 - NAB Quality Management Plan, December 2020

- **Location:** Baltimore Harbor, Maryland

- **Study Authority:** The study authority for the modification of BHAC serving public terminals in the Port of Baltimore (Port) is pursuant to §216 of the Rivers and Harbors Act of 1970 (Pub. L. No. 91-611, 33U.S.C. §549a), which reads:

The Secretary of the Army, acting through the Chief of Engineers, is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due to the significantly changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest.

The BHAC is the constructed Corps of Engineers project that will be reviewed for modification as part of this study. The study for the BHAC was authorized June 23, 1988, by the Committee on Environment and Public Works, U.S. Senate. The resolution authorizing this study follows:

RESOLVED BY THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS OF THE UNITED STATES SENATE, that the Board of Engineers for Rivers and Harbors is hereby requested to review the reports of the Chief of Engineers on Baltimore Harbor and Channels, Maryland, and Virginia, contained in House Documents Number 94-181, 94th Congress, 1st Session, and Number 86, 85th Congress, 1st Session, and prior reports, with a view to determining if further improvements for navigation, including anchorages and branch channels, are advisable at this time.

The study conducted pursuant to this authority resulted in a Chief's Report dated June 8, 1998, and in project authority in §101(a)(22) of WRDA 1999 (Pub. L. No. 106-53). As discussed in the Chief of Engineer's Report, the project included improvements to access channels serving the public terminals of Dundalk, Seagirt, and South Locust Point. The Federal government assumed maintenance of these channels at their authorized depth. Note that §101(a)(22)(i) mentions deepening an access channel to the Dundalk Marine Terminal to -50 feet mean lower low water (MLLW) that was not accomplished.

- **Sponsor:** Maryland Department of Transportation Maryland Port Administration (MDOT MPA)
- **SMART Planning Status:** The study is 3x3x3 compliant and is post-Alternatives Milestone. The next major milestone is the TSP.
- **Project Area:** The study area encompasses the 32-square mile area of the Port of Baltimore including the navigable parts of the Patapsco River below Hanover Street, the Northwest and Middle Branches, and the Curtis Bay and its tributary, Curtis Creek. This study will focus on the Seagirt Loop Channel, the South Locust Point Branch Channel and Turning Basin, and the federally authorized Anchorages serving the public terminals in the Port of Baltimore including Baltimore Harbor Anchorages and Channels and Port of Baltimore facilities (Figure 1).
- **Problem Statement:** Large vessels transiting the Baltimore Harbor channel system are currently experiencing inefficiencies and maneuverability issues during transit as a result of the current channel configuration and inadequate depths in the Baltimore Harbor access channels. The Port of Baltimore has experienced an increase in the number of calls from larger, post-Panamax class container vessels since 2016. Today's post-Panamax vessels are longer, wider, and have deeper drafts than the design vessel used for the federally authorized dimensions of the Baltimore Harbor branch channels. Currently, the Seagirt Marine Terminal and access channels are maintained to -50 feet MLLW to allow for vessels to call at Berth 4, following improvements completed by the State of Maryland. Improvements to Berth 3 are expected to be complete in 2021 that will also accommodate similar sized vessels. Now that there are more regular calls from post-Panamax vessels to the Port, the current channel configuration results in inefficiencies in transit due to insufficient channel width at turns. Currently, vessels transiting to or from Seagirt berths 1-3 must proceed with great caution to avoid collisions or allisions (the running of one ship into a stationary ship) while berth 4 is occupied with a large vessel. Furthermore, vessels with a draft in excess of 42 feet must be backed out of the berthing areas, or turned because the West Seagirt Branch Channel is maintained to the federally authorized depth of -42 feet MLLW. Additionally, discussions with the MDOT MPA and the Association of Maryland Pilots (Maryland Pilots) resulted in identification of additional needs including the future need for a larger vessel anchorage in Baltimore Harbor to reduce stand-by delays for vessels calling at

Port facilities and the need for deepening of the South Locust Point Branch Channel and Turning Basin to increase transportation efficiencies for vessels calling at the Terminal that are currently light loading to unload cargo.

- **Study/Project Goals and Objectives:** The goal of the study is to maximize Baltimore Harbor's contribution to national economic development, consistent with protecting the Nation's environment, by improving the existing navigation system's ability to safely and efficiently serve the forecasted vessel fleet. The planning objectives include decreasing transportation delays to vessels calling at the Port of Baltimore, improving navigability and increasing safety for vessels using the Baltimore Harbor access channels, increasing transportation efficiencies for vessels calling at South Locust Point Terminal, and to meet the current and future needs for handling of larger vessels to satisfy container traffic demand at the Port of Baltimore.
- **Description of Action:** NAB and NAD outlined the scope of the current study, focusing on the modification of the existing federal navigation branch channels and anchorages in Baltimore Harbor. The scope of the proposed action include widening and deepening of the Seagirt Loop Channel (up to -50 feet MLLW), re-design of an anchorage to allow for larger vessels to standby within Baltimore Harbor, examining deepening of the South Locust Point Branch Channel and Turning Basin, and considering and evaluating other structural and nonstructural measures that will result in improved transportation efficiencies in Baltimore Harbor. NAB's Baltimore Harbor Dredged Material Management Plan (DMMP) was revised in 2017 and has a planning horizon of 20 years, with updates completed on a 5 year cycle. The DMMP will account for management of dredged material from Baltimore Harbor that will result from the project, which per state law¹ and NAB's DMMP are unsuitable for open water placement and must be placed in an approved contained placement site.
- **Federal Interest:** The Port of Baltimore ranks 11th in the nation in foreign cargo tonnage and 9th in the nation in terms of dollar value for 2019. The Port generates 153,000 direct jobs with an additional 140,000 jobs overall linked to Port activities and is a major source of revenue for the State of Maryland. Improvements to the Seagirt Loop Channels were constructed by the Corps of Engineers in the interest of navigation in 2003. Further improvements to the branch channels and anchorages would result in greater navigation efficiencies at the Port including handling increased container volume at Seagirt Marine Terminal, faster and safer movement of vessels transiting the channels, and meeting future demand capacity at the Port facilities.
- **Risk Identification:** This project is low to moderate risk considering that the proposed modifications would be completed in areas with existing navigation improvements including branch channels and anchorages. The nature of the proposed modifications would have negligible impacts on existing operations. There is low to moderate uncertainty related to future economic conditions that will be estimated based on existing commodity and fleet forecasts. Potential risks in the feasibility study are similar to those in USACE deep draft navigation studies or projects and are not expected to impact the successful completion of the project. The project

¹ The Maryland Dredged Material Management Act of 2001 restricted dredged material placement from the Harbor Channels to approved contained placement sites.

will not be justified by life safety considerations and does not involve significant threat to human life.

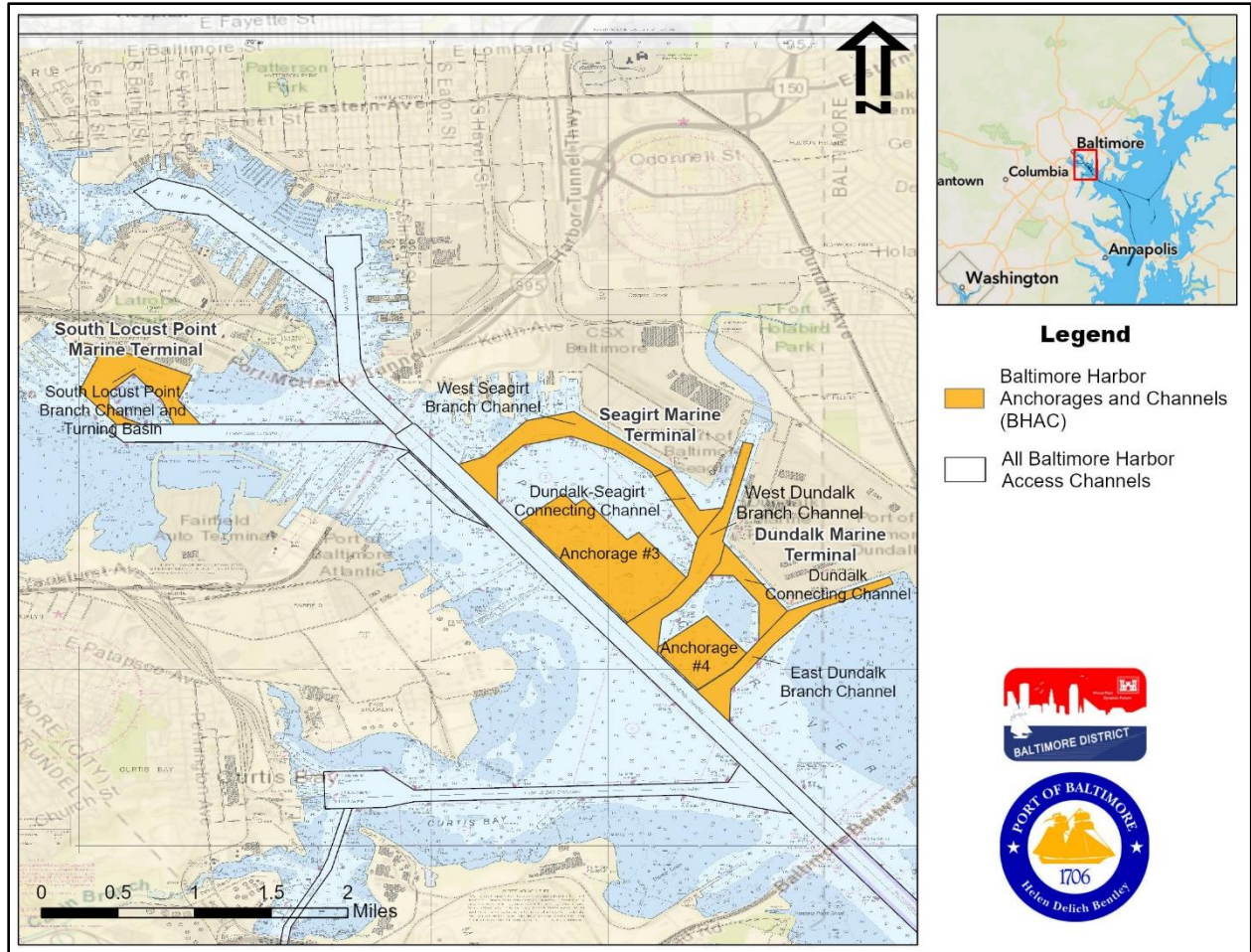


Figure 1: Study Area for modification of Baltimore Harbor Anchorages and Channels

5. FACTORS AFFECTING THE LEVELS OF REVIEW

- A. Is it likely that part(s) of the study will be challenging (EC 1165-2-217, paragraph 7.a.(1))? The study is not likely to be challenging from an engineering perspective because dredging has previously been completed by the State at the West Dundalk Branch Channel and the Dundalk-Seagirt Connecting Channel. The non-federal sponsor and their private partner, Ports America Chesapeake, have made land-side improvements at Berth 3 and are on track to complete construction of the super-post Panamax cranes in mid-2021. These cranes will be able to service vessels of up to 22 containers wide and will be in place prior to study completion. The deepening of the West Seagirt Branch Channel, anchorage improvements, and improvements at South Locust Point Branch Channel and Turning Basin would be completed in areas within the existing project boundaries of the Federal project, with minor modifications in dimensions needed to accommodate larger vessels. There is some complexity associated with estimating navigation efficiencies for the economic analysis. Previous work completed by NAB for the Baltimore Harbor 50-Foot Widening Study will help inform analyses in this study including examining existing commodity and fleet forecasts and initial HarborSym modeling files.
- B. Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks (EC 1165-2-217, paragraph 7.a.(1)). All of the project risks identified are low to moderate, consistent with the proposed project being in areas of the existing navigation project. The moderate risks in this study include using existing information contained in the commodity and fleet forecasts completed for the Baltimore Harbor 50-Foot Widening Study (terminated in 2016), in the MITAGS Ship Simulation Study completed in 2018, and previous market analyses. These risks are being mitigated by requiring review and concurrence of existing information by subject matter experts. Additionally, moderate risks identified include the potential for an increase in study scope due to consideration and evaluation of anchorage deepening in the feasibility study and geotechnical risks associated with insufficient borings within the study area. Both risks are being mitigated by requiring detailed analysis including detailed designs and volume estimates for anchorages to determine whether there is adequate dredged material placement capacity in Baltimore Harbor upland disposal facilities and collecting additional borings during the feasibility study to conduct stability analyses of channels. Additionally, the management of contaminated dredged material from Baltimore Harbor has been identified as a low risk because it would be placed at an approved upland disposal site in accordance with federal and state law. There is a moderate risk of study delays due to constrained federal and state budgets and budget priorities, particularly following expenditures related to the COVID-19 pandemic and decreases in federal and state revenues resulting from the 2020 recession. The need for federal and state funding could result in funding lapses in future years of the study that would impact the study schedule and is considered a moderate risk based on recent precedent. The future conditions for container and traffic flows have a low to medium level of uncertainty and assumptions are based on the historical increased trendlines. There also remains low to moderate level of uncertainty related to the future conditions in terms of total demand for container unit volume and post-Panamax fleet flows calling at the Port of Baltimore.
- C. Is there a significant threat to human life associated with aspects of the study or with failure of the project or proposed project (Type I IEPR - EC 1165-2-217, paragraph 11.d(1)(a) and SAR - paragraph 12.h.)? No, there is no significant threat to human life associated with the study or with failure of the proposed project. The feasibility study is not looking to recommend a plan to

reduce flooding or life safety risk. Channel improvements will be justified through a savings in transportation costs and will not be justified by life safety. There are no significant threats to human life associated with either construction of the proposed improvements, operation and maintenance of the proposed project, or with the project failure. Should the project not perform as expected, the impact would be a lower than expected benefit to NED, which does not impact human life and/or safety. Non-performance of the project would not affect the well-being of the general public and/or environment, but may negatively affect transportation costs for commodities coming in through area facilities. There is no residual risk to account for in this project due the fact that the project purposed does not address or directly affect human health and safety. This life safety assessment has been reviewed by the NAB Chief of Engineering and has their concurrence.

- D. Is the estimated total cost of the project greater than \$200 million (EC 1165-2-217, paragraph 11.d(1)(b))? The total cost of the project is not anticipated to be greater than \$200 million. This statement will be updated with additional information as rough order of magnitude cost estimates become available to ensure compliance with EC 1165-2-217.
- E. Will the study/project require an environmental impact statement (EIS) (EC 1165-2-217, paragraph 11.d(1)(b))? No, an environmental assessment will be prepared for the study and integrated into the draft and final feasibility reports. The size and simplicity of the proposed modifications to the existing navigation project would likely not result in significant environmental concerns. Baltimore Harbor and its sediments are considered contaminated by the state law and NAB's DMMP and will be disposed at an approved upland disposal site. There are no anticipated significant impacts to fish, wildlife, natural or cultural resources within the study area, which remains in continuous use for navigation purposes. Project recommendatons will be environmentally acceptable and in compliance with applicable environmental laws and regulations. The study is expected to result in an approved Finding of No Significant Impacts.
- F. Has the Governor of an affected state requested a peer review by independent experts (EC1165-2-217, paragraph 11.d(1)(c))? A peer review by independent experts has not been requested by the Governor of the State of Maryland.
- G. Has the Chief of Engineers determined that the project study is controversial due to significant public dispute over the size, nature, or effects of the project or the economic or environmental costs or benefits of the project (EC 1165-2-217, paragraph 11.d(1)(d))? No, the study/project is not likely to involve significant public dispute as to its size, nature, or effects of the project or its economic or environmental costs or benefits as improvements are proposed to existing branch channels and an anchorage. All of the proposed work is in areas already in use for navigation purposes so improvements would affect the depths or dimensions of the existing navigation infrastructure.
- H. Is the study/project likely to involve significant public dispute as to the project's size, nature, or effects (EC 1165-2-217, paragraph 11.d(1)(e))? The study is not likely to involve significant public dispute as to the size, nature, or effects of the project because existing branch channels and anchorages from a federally-authorized project are in place in the general study area and where work is proposed by USACE. The improvements being considered would only be recommended if economically justified, environmentally acceptable, and technically feasible.

The identification and evaluation of measures in the feasibility study has been discussed with the Maryland Pilots Association, U.S. Coast Guard, and National Oceanic and Atmospheric Administration at a Harbor Safety Meeting on 9 December 2020. An interagency meeting is planned for January of 2021 to incorporate feedback and input from federal and state agencies with an interest in navigation and environmental resources of Baltimore Harbor. The Maryland Port Administration and the Maryland Pilots are in support of the proposed work and have worked closely with the PDT in the identification of problems, the evaluation of measures, and the development of the array of alternatives. Additionally, the deepening and widening of the West Dundalk Branch Channel and Dundalk-Seagirt Connecting Channel, and approximately 50 percent of the Seagirt Loop Channel has been completed by the State of Maryland under a different NEPA analysis with little public dispute related to the project size, nature or effects. Specific analyses are being completed in the feasibility study with regards to considerations of the quality and disposal of dredged material, consideration of hazardous, toxic, and/or radioactive sites, air pollution, and inventorying of cultural resources in the study area.

- I. Is the study/project likely to involve significant public dispute as to the economic or environmental cost or benefit of the project (EC 1165-2-217, paragraph 11.d(1)(f))? The study/project is not likely to involve significant public dispute as to the economic cost or benefits of the project or the potential environmental impacts of the proposed action. The non-federal sponsor and the Maryland Pilots support the project as improvements would increase the economic efficiency of vessel/port operations thus providing benefits to the nation and the Baltimore City Metropolitan Area through reduced transportation costs and increased regional competitiveness of the Port of Baltimore. USACE expects interest from agencies and the public regarding environmental considerations; through early and often communication, USACE expects concerns will be minimized. The improvements being considered would only be recommended if economically justified, environmentally acceptable, and technically feasible.
- J. Is the information in the decision document or anticipated project design likely to contain influential scientific information or be a highly influential scientific assessment – i.e., 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 (Type I IEPR - EC 1165-2-217, paragraph 11.d(1)(g); SAR paragraph 12.i.(1); and paragraph 15.d)? The information contained in the study or any anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices. The project will involve traditional methods of dredging and placement of dredged material. Standard engineering, economic, and environmental information and analyses will be used. No new models will be used in evaluating alternatives in the feasibility study.
- K. Does/will the study/project have significant interagency interest (EC 1165-2-217, paragraph 7.f(1))? The project is expected to have typical interagency interest based on discussion and comments during an initial coordination call with agencies about the project. During development of the EA and in accordance with the requirements of all applicable Federal environmental laws, NAB will coordinate with relevant state and Federal resource agencies to address such interest. In addition, NAB plans to hold a public meeting between the TSP Milestone meeting and the release of the Draft EA, likely in November 2021, to solicit public comment and this section will be updated after that meeting.

- L. Are there any other circumstances that would lead the Chief of Engineers to determine Type I IEPR is warranted (EC 1165-2-217, paragraph 11.d(1)(h))? No, total project costs are not expected to exceed \$200 million. There are no other circumstances that would lead the Chief of Engineers to determine that Type I IEPR is warranted.
- M. Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources (EC 1165-2-217, paragraph 11.d(4)(a))? The project is not expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources. Existing NEPA analyses and SHPO inventories provide adequate documentation of existing tribal, cultural, and historic resources in the study area. The project will be formulated to avoid adverse impacts.
- N. Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures (EC 1165-2-217, paragraph 11.d(4)(a))? No. The project area is designated as essential fish habitat for five fish species and three species of skate. The project area is also migratory habitat for river herring and two endangered species, the Atlantic sturgeon and the shortnose sturgeon. The project area is not designated as critical habitat. The improvements being considered are within existing navigation channels and anchorages located within a large working port. Only minor adverse impacts to these species are expected. ESA and EFH coordination with the National Oceanic and Atmospheric Administration will be required and will occur during the feasibility study. Project recommendations will be environmentally acceptable and ensure compliance with environmental laws and regulations.
- O. 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 (EC 1165-2-217, paragraph 11.d(4)(a))? The project area is migratory and foraging habitat for the endangered Atlantic sturgeon and migratory, foraging and overwintering habitat for the endangered shortnose sturgeon. The project area is not designated as critical habitat. The improvements being considered are within existing navigation channels and anchorages located within a large working port. Only minor adverse impacts to these species are expected. ESA coordination with the National Oceanic and Atmospheric Administration will be required for Atlantic sturgeon and Shortnose sturgeon and will occur during the feasibility study. Project recommendations will be environmentally acceptable and ensure compliance with environmental laws and regulations.
- P. Does the project study pertain to an activity for which there is ample experience within the USACE and industry to treat the activity as being routine (EC 1165-2-217, paragraph 11.d(4)(b))? Yes, the final integrated feasibility report and supporting documentation will contain standard engineering, economic, and environmental analyses and information. The project is for dredging and upland placement of dredged material, for which there is ample experience within the USACE and industry to be considered routine. Novel methods will not be utilized, and methods, models, or conclusions will not be precedent setting or likely to change policy decisions.
- Q. Does the project study have minimal life safety risk (EC 1165-2-217, paragraph 11.d(4)(b))? The project will not be justified by life safety considerations and does not involve a significant threat to human life. The project involves negligible life safety risk; standard dredging techniques are

proposed consistent with those used in the authorized project for channel maintenance. No unique or special equipment that would introduce uncertainties or additional risk to life safety is needed to complete proposed project construction.

- R. Does the project design require redundancy, resiliency, and/or robustness (EC 1165-2-217, paragraph 12.i.(2))? The project design would likely not require redundancy, resiliency, and/or robustness, unique construction, sequencing, or a reduced or overlapping design construction schedule as the project design will follow standard dredging and placement techniques used throughout USACE and industry.
- S. Will the project have unique construction sequencing or a reduced or overlapping design construction schedule (e.g., significant project features will be accomplished using the Design-Build or Early Contractor Involvement delivery systems) (EC 1165-2-217, paragraph 12.i.(3))? No. The project design will follow standard dredging and placement methodologies typically conducted by the District for navigation projects including existing operation and maintenance for these same branch channels. As such the project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule.

6. 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:

A. Types of Review:

- 1) **District Quality Control.** All decision documents (including data, analyses, environmental compliance documents, etc.) undergo DQC. This internal review process covers basic science and engineering work products. It fulfills the project quality requirements of the Project Management Plan. At a minimum, DQC of the Draft and Final Reports and milestone submittals will be performed (Planning Bulletin 2018-01, Feasibility Study Milestones).
- 2) **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. The ATR team will ensure that proper and effective DQC has been performed (as assessment of which will be documented in the ATR report) and will ensure that the product is consistent with established criteria, guidance, procedures, and policy. If significant life safety issues are involved in a study or project, a safety assurance review should be conducted during ATR. At a minimum, ATR of the draft and final decision documents and supporting analyses is required (Engineer Circular (EC) 1165-2-217, paragraph 9.i.(3)); however, targeted reviews may be scheduled as needed. If significant life safety issues are involved in a study or project a safety assurance review should be conducted during ATR.
- 3) **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. If the District anticipates requesting an exclusion from Type I IEPR, that effort should be coordinated with the RMO for assessment prior to submitting to the MSC for approval. Should IEPR be required, the RMO should be contacted at least three months in advance of the anticipated start of the concurrent review period to allow sufficient time to obtain contract services. If required, Type I IEPR will be managed by an Outside Eligible Organization, external to USACE. Neither the public nor scientific or professional societies would be asked to nominate potential external peer reviewers.

- 4) **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 team and will provide the Cost Engineering certification. The RMO is responsible for coordinating with the MCX for the reviews. Cost reviews may occur as part of the draft/final report ATRs but the schedule for specific reviews may also vary. Accordingly, the PDT should coordinate closely review related needs with both the MCX and RMO.
- 5) **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.
- 6) **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 section of the Review Plan.
- 7) **Public Review.** The home District will post the RMO-endorsed and MSC-approved RP on the District's public website. Internet posting of the RP provides opportunity for the public to comment on that document. It is not considered a formal comment period, and there is no set timeframe for public comment. The PDT should consider any comments received and determine if RP revisions are necessary. During the public comment period, the public will also be provided with the opportunity to review and comment on the draft and final reports. Should IEPR be required, public comments will be provided to the IEPR panel for consideration.

B. Anticipated Project Reviews and Estimated Costs

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: Baltimore Harbor Anchorages and Channels Modification – Anticipated Reviews²

Product(s) to undergo Review	Review Level	Start Date	End Date	Cost	Complete
Draft Feasibility Report and EA	District Quality Control	09/30/2021	10/29/2021	\$38,400	No
	Agency Technical Review ³	11/15/2021	1/21/2022	\$70,040	No
	Type I IEPR	n/a	n/a	n/a	No
	Policy and Legal Review	11/15/2021	1/21/2022	n/a	No
Final Feasibility Report and EA	District Quality Control	5/30/2022	7/6/2022	\$43,200	No
	Agency Technical Review ⁴	7/22/2022	8/22/2022	\$54,040	No
	Policy and Legal Review	9/15/2022	11/14/2022	n/a	No
In-kind Products ⁵	Feasibility level design, dredged material quantity estimates, design vessel documentation, MITAGS Ship Simulation (Part I – completed in 2018; Part II anticipated during study), Dredged Material Management Plan Review and Documentation, Geotechnical Borings and Investigations				

² DQC of read-ahead materials for Milestones will be completed in accordance with PB 2018-01.

³ Estimated cost for Draft and Final Report ATRs does not include the cost of ATR Team Lead participation in milestone meetings or other engagement/coordination beyond that directly related with those ATRs. The estimated cost for ATR of the Draft Report is based upon the following assumptions and could be higher/lower depending upon review requirements:

- ATR Team Lead – 32 hours, \$125/hour
- ATR Team – 12 Technical Disciplines, 40 hours/discipline, average \$125/hour
- RMO – 40 hours, \$151/hour

⁴ The estimated cost for ATR of the Final Report is based upon the following assumptions:

- ATR Team Lead – 32 hours, \$125/hour
- ATR Team – 11 Technical Disciplines, 32 hours/discipline- average, average \$125/hour
- RMO – 40 hours, \$151/hour

⁵ Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR.

C. DISTRICT QUALITY CONTROL

The home district shall manage DQC and will appoint a DQC Lead to manage the local review (see EC 1165-2-217, section 8.a.1).

1) **Review Team Expertise.** 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.).
Plan Formulation	A senior water resources planner with experience in the plan formulation of DDN studies, dredged material placement requirements, and general planning policy and guidance.
Economics ⁶	A senior economist familiar with the processes used in evaluation of deep draft navigation projects and have recent experience in preparing economic analysis plans for navigation feasibility studies, including estimates of transportation cost changes due to harbor improvements. The team member should have knowledge of the applicable models and software used including HarborSym.
Environmental Resources	A senior environmental resources specialist with experience with environmental evaluation and compliance requirements pursuant to the “Procedures for Implementing NEPA” (ER 200-2-2), national environmental laws and statutes, and other federal planning requirements for Civil Works projects. Specialist should have familiarity with navigation projects and dredging as well as working knowledge of estuarine and coastal ecology. The reviewer should also be familiar with the environmental coordination and NEPA requirements for deep draft navigation projects and dredged material placement requirements.
Cultural Resources	A senior cultural resource specialist with experience with cultural resource survey methodology, area of potential effects, Section 106 of the National Historic Preservation Act, and state and Federal laws/executive orders pertaining to American Indian Tribes.
Hydrology and Hydraulic (H&H) Engineering	A senior hydrologic and hydraulic engineering specialist with extensive experience associated with coastal H&H modeling and a thorough understanding of open channel dynamics and experience in deep draft navigation studies and projects. The reviewer should have experience with coastal hydrodynamics.

⁶ The economics DQC team member will be identified by the DDNPCX (OPORD 2012-15).

DQC Team Disciplines	Expertise Required
	The reviewer must be familiar with the application of USACE risk and uncertainty analyses and sea level rise, sedimentation, water quality evaluations, and HH&C modeling identified in Table 6.
Engineering-Geotechnical	A geotechnical engineer with experience with geotechnical investigations and design necessary for deep draft navigation projects. The geotechnical engineer should have experience in reviewing boring samples, sediment samples, and geotechnical requirements related to the management and placement of dredged material. The geotechnical engineer reviewer should also have experience with remediation of soil/sediment contaminants and the geotechnical model identified in Table 6.
Cost Engineering	A senior cost engineer with experience in SMART Planning and cost estimating for deep draft navigation studies. The reviewer should also have experience in reviewing abbreviated risk assessments for deep draft navigation and cost engineering models to be used in the study (Table 6).
Hazardous, Toxic, and Radioactive Wastes (HTRW)	A senior environmental engineer with expertise in HTRW and knowledge of applicable federal and state laws. The reviewer should have experience in deep draft navigation projects, SMART Planning studies, and implementing USACE policies related to HTRW.
Operations	Reviewer from Operations Division with expertise in the operations and maintenance of deep draft navigation projects and dredged material placement requirements.
Real Estate	A senior real estate specialist with experience in the preparation and evaluation of real estate plans, evaluation of real estate requirements for deep draft navigation projects, and real estate requirements for upland dredged material placement sites.

2) 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. DrChecks software will be used to document DQC review comments, responses, and issue resolution. 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 will 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).

D. AGENCY TECHNICAL REVIEW

ATR will be performed on the draft and final decision documents and supporting analyses (EC 1165-2-217, paragraph 9.i.(3)). The RMO will manage the ATR. 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. ATR will be performed by a team whose members are certified or approved by their respective Communities of Practice (CoPs) to perform reviews. The RMO will identify an ATR lead and ATR team members. Neither the home District nor the MSC will nominate review team members. The ATR team lead will be from outside the home MSC. The ATR team lead is expected to participate in the study’s milestone meetings (PB 2018-01), the cost of which is not included in the estimates provided in Table 1. Targeted ATR or review of interim products is not anticipated at this time. Should such be needed, the RP will be updated, as appropriate.

- 1) **Review Team Expertise.** Table 3 identifies the disciplines and ATR team expertise required for study efforts. Multiple disciplines may be covered by one reviewer.

Table 3: Required ATR Team Expertise

ATR Team Disciplines	Expertise Required
ATR Lead	A senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also be familiar with SMART Planning processes and have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Plan Formulation	A senior water resources planner with experience in deep draft navigation studies and analysis of dredged material placement evaluations and be familiar with Section 216 modifications requirements and the SMART Planning process.
Economics	Two economics reviewers will be required. The first, a senior economist, should have experience in deep draft navigation studies (channel deepening and widening), evaluation of international container trade, and be familiar with SMART planning processes and requirements for Section 216 modifications. The second reviewer will review the economic models to be used for this study: HarborSym and RECONS (Table 5).
Environmental Resources	Senior environmental reviewer with expertise in the impacts associated with navigation projects and dredging as well as extensive knowledge of estuarine and coastal ecology. The reviewer should also be familiar with the environmental coordination and NEPA requirements for deep draft navigation projects and dredged material placement.
Cultural Resources	A senior archaeologist with extensive experience associated with evaluating the impacts associated with DDN channel improvement and dredging projects as well as extensive knowledge of underwater archaeology. The reviewer should

ATR Team Disciplines	Expertise Required
	have experience with cultural resources impact assessment and compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.
Hydrology, Hydraulic, & Coastal (HH&C) Engineering	The HH&C reviewer should be an expert in the field and have a thorough understanding of open channel dynamics, channel design, and dredged material placement requirements. The reviewer must be familiar with the application of USACE risk and uncertainty analyses and sea level rise, sedimentation, water quality evaluations, and familiar with computer modeling techniques that will be used in the study
Cost Engineering	Senior cost engineer certified by the Cost Engineering MCX, with experience in deep draft navigation studies and projects and dredged material placement requirements, and expertise with the cost engineering models identified in Table 6.
Geologist/Geotechnical Engineering	The reviewer will have extensive experience reviewing boring samples, sediment samples, and geotechnical requirements related to the dredging, management, and placement of dredged material. The reviewer should also have experience with remediation of soil/sediment contaminants and the geotechnical model identified in Table 6.
Hazardous, Toxic, and Radioactive Wastes (HTRW)	The reviewer will have extensive experience in evaluating HTRW issues and compliance with federal and state laws and USACE policies related to HTRW. The reviewer should also have experience with remediation of soil/sediment contaminants and management of dredged material including placement and issues related to placement facilities.
Operations	The operations reviewer should have expertise in the operations and maintenance of deep draft navigation studies and projects and dredged material placement requirements.
Real Estate	Senior real estate specialist with experience in the preparation and evaluation of real estate plans, evaluation of real estate requirements for deep draft navigation projects, and real estate requirements for upland dredged material placement sites.
Climate Preparedness and Resilience CoP/HH&C Climate Reviewer	A member of the Climate Preparedness and Resiliency Community of Practice (CoP) or an HH&C Climate certified reviewer will participate in the ATR review.

2) **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.

E. INDEPENDENT EXTERNAL PEER REVIEW

- 1) **Decision on Type I IEPR.** Type I IEPR is managed outside of the USACE and conducted on studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study.

Based upon the criteria identified in the 05 April 2019 DCW memorandum and the scope of the study, the PDT's risk informed assessment is that the study does not require Type I IEPR. The risk informed decision was based on consideration of the following, as documented in Section 5 of this RP. The decision document does not meet any of the mandatory triggers for Type I IEPR: there is no significant threat to human life; the estimated total cost of the project is less than the \$200M trigger; the Governor of Maryland has not requested peer review by independent experts; and the Chief of Engineer's has not determined that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project. Based on the limited scope of the modification in this study, limited nature of environmental and cultural effects of the proposed action, and extent of completed work by the non-federal sponsor and private partners, it is unlikely that a Type I IEPR would be warranted or significantly affect the quality of the review or decisions in the study

- 2) **Decision on Type II IEPR.** Type II IEPR, Safety Assurance Review, is managed outside of the USACE and is performed on design and construction activities for any project where potential hazards pose a significant threat to human life. For Type II IEPRs, a panel is convened to review the design and construction activities before construction begins and periodically thereafter until construction activities are completed.

The PDT has assessed this single purpose DDN project and determined that it DOES NOT meet the criteria for conducting Type II IEPR:

- The Federal action is not justified by life safety and failure of the project will not pose a significant threat to human life.
- The project does not involve the use of innovative materials or techniques where the engineering is based on novel methods; it does not present complex challenges for interpretations; it does not contain precedent-setting methods or models; and it does not present conclusions that are likely to change prevailing practices. Proposed improvements are to an existing Federal navigation project. Construction and maintenance techniques have been standardized and no new techniques are expected to be utilized for design and construction activities.
- The project design does not require redundancy, resiliency, or robustness as the design of navigation improvements at Baltimore Harbor will be based upon previously developed and utilized construction techniques which do not require redundancy, resiliency, and/or robustness.
- The project does not have unique construction sequencing or a reduced or overlapping design construction schedule.

F. 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 5: Planning Models

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
HarborSym	The HarborSym Program is a Monte Carlo simulation of vessel traffic for coastal harbors that estimates transportation cost changes due to harbor improvements including: vessel time in harbor, inefficient delay times, and the transportation cost from prior/next port and overseas distance. It also incorporates risk and uncertainty. It will be used to measure potential benefits of proposed harbor and/or channel improvements to Baltimore Harbor.	Certified
Regional Economic System (RECONS) (Economics)	RECONS is a regional economic impact modeling tool that estimates jobs, income, and sales associated with Corps Civil Works spending and additional economic activities. The model will be used to estimate the regional economic impacts of project implementation.	Certified

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. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR. The following models may be used to develop the decision document.

Table 6: Engineering Models

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Approval Status
Ship/Tow Simulation (HH&C)	The Ship/Tow Simulator features two bridges set up for real-time ship maneuvering. It is expected that the study will use the simulator available at MITAGS which is generally setup for ship pilot training but can be used, with ERDC supervision, to evaluate navigation channel designs, modifications, and safety issues. MITAGS is located just outside Baltimore, MD and houses two 360 degree Transas Full-Mission Shiphandling Simulators integrated with a 120 degree Bridge Tug and a 300 degree Bridge Tug Simulator.	Allowed with ERDC oversight
SLOPE /W (Geotech)	Slope/W is a two-dimensional FEM (Finite Element Method) software used to analyze slope stability based on user's input of soil parameters.	Allowed
Microcomputer Aided Cost Engineering System (MCACES), MII	Microcomputer Aided Cost Engineering System (MCACES) is the cost estimating software program tools used by cost engineering to develop and prepare Class 3 Civil Works cost estimates.	Civil Works Cost Engineering and Agency Technical Review MCX mandatory
Total Project Cost Summary (TPCS)	The TPCS is the required cost estimate document that will be submitted for either division or HQUSACE approval. The Total Project Cost for each Civil Works project includes all Federal and authorized non-Federal costs represented by the Civil Works Work Breakdown Structure features and respective estimates and schedules, including the lands and damages, relocations, project construction costs, construction schedules, construction contingencies, planning and engineering costs, design contingencies, construction management costs, and management contingencies.	Civil Works Cost Engineering and Agency Technical Review MCX mandatory
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.	Civil Works Cost Engineering and Agency Technical Review MCX mandatory
Corps of Engineers Dredge Estimating Program (CEDEP)	CEDEP is the required software program that will be used for dredging estimates using floating plants. CEDEP contains a narrative documenting reasons for decisions and selections made by the cost engineer. Software distribution is restricted because it's considered proprietary to the Government.	Civil Works Cost Engineering and Agency Technical Review MCX mandatory

G. POLICY AND LEGAL REVIEW

In accordance with DPM CW 2018-05, P&LCRs for draft and final planning decision documents are delegated to the MSC responsible for the execution of the study.

With input from MSC and HQUSACE functional leaders and through collaboration with the Chief of Office of Water Project Review (OWPR), the MSC Chief of Planning and Policy is responsible for establishing a competent interdisciplinary P&LCR team (DPM 2019-01). The composition of the policy review team will be drawn from HQUSACE, the MSC, the Planning Center of Expertise (PCX), and other review resources as needed. The identification of Counsel Members will follow the procedures set forth by the HQUSACE Chief Counsel, as coordinated by HQUSACE and MSC Counsel functional leaders. The MSC Chief of Planning and Policy and the Chief of OWPR will collaborate to identify and endorse a P&LCR Manager from among the P&LCR team identified for the study. The manager may be a MSC, PCX, or HQUSACE employee. The team is identified in Attachment 1 of this RP.

The P&LCR team will:

- Provide advice and support to the PDT and decision makers at the District, MSC, HQUSACE, and Assistant Secretary of the Army for CW levels.
- Engage at both the MSC and HQUSACE levels, ensuring that the vertical teaming aspect of SMART planning is maintained.
- Help guide PDTs through project development and the completion of policy and legally compliant documents, identifying policy and legal issues as early as possible such that issues can be addressed while minimizing impacts to study and project costs and schedules.
- Provide impartial and unbiased recommendations, advice, and support to decision makers

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
Ray Tracy	CENAB-PP-C	Project Manager	410-962-6114
Luis Santiago	CENAB-PL-P	Study Manager	410-962-6691
Kameel Hall	CENAB-ENC-M	Design Manager	410-962-5667
Andrew Roach	CENAB-PL-P	Plan Formulation	410-962-8156
Julie McGuire	CESAM-PD-D	Lead Economist	251-690-2607
Triet Nguyen	CENAO-WRP-R	Support Economist	757-201-7752
Kristina May	CENAB-PL-P	Biologist	410-962-6100
Ethan Bean	CENAB-PL-P	Archeologist	410-962-2173
Luis Santiago	CENAB-PL-P	Geographer	410-962-6691
Daniel Mensah	CENAB-ENC-E	Civil Engineer	410-962-9466
Tanveer Chowdry	CEANB-ENC-W	H&H Engineer	410-962-5127
Ian Delwiche	CENAB-ENG-G	Geotech Engineer	410-962-4235
Luan Ngo	CENAB-END-T	Cost Engineer	410-962-3322
Denise Tegtmeier	CENAB-ENE-T	Environmental Engineer	410-962-7677
Thomas Craig	CENAB-REC	Civil Realty Specialist	410-962-2209
Jeremiah Spiga	CENAB-OPT-N	Lead Navigation Specialist	410-962-5677
Chris Gardner	CENAB-CC	Public Affairs Specialist	410-962-2626
David Bibo	MPA	Chief of Operations, Project Manager	410-385-4466
Holly Miller	MPA	Program Manager	410-385-4748
Bertrand Djiki	MPA	Transportation Engineer	410-385-4426
Mindy Strevig	MES	Senior Engineer/Project Manager	443-679-6056

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position	Phone Number
Jacqueline Seiple	CENAB-PL-P	DQC Lead/Plan Formulation Reviewer	410-962-4398
Graham McAllister	CENAB-OPT-N	Operations Reviewer	410-962-6068
Parris McGhee-Bey	CENAB-CDV-C	Cost Engineering Specifications Reviewer	410-962-9596
Charles Frey	CENAB-ENG	Geotechnical Engineering Reviewer	410-962-5663
Dan Risley	CENAB-ENC-W	Hydrology & Hydraulics / Climate Change Reviewer	410-962-5127
Charles Leasure	CENAB-PL-P	Environmental & Cultural Resources Reviewer	410-962-5175
Craig Homesley	CENAB-REC	Real Estate Reviewer	410-962-4944
Caitlin Bryant	DDNPCX	Economics Reviewer	251-694-3884
Denise Tegtmeier	CENAB-ENE-T	HTRW Reviewer	410-962-7677

AGENCY TECHNICAL REVIEW TEAM			
Name	Office	Position	Phone Number
Samantha Borer	CESAJ-PD-PN	ATR Lead/Plan Formulation	904-232-1066
TBD		HTRW (Report)	
TBD		Economics (Report)	
TBD		Economics (Model)	
TBD		Environmental	
TBD		Cultural Resources	
TBD		HH&C Engineer	
TBD		Climate Preparedness and Resilience CoP/HH&C Climate Reviewer	
TBD		Cost Engineering	
TBD		Geologist/Geotechnical Engineering	
TBD		Operations	
TBD		Real Estate	

VERTICAL TEAM			
Name	Office	Position	Phone Number
Joe Vietri	CENAD-PD-P	Chief, Planning & Policy	347-370-4570
Roselle Stern	CENAD-PD-P	Deputy Chief, Planning & Policy	347-370-4562
Kim Gavigan	CECW-NAD	Regional Integration Team (RIT) Program Manager	202-761-1371
Robert Vohden	CENAD-PD-C	District Support Team Lead (DST) Program Manager	347-370-4521
Todd Nettles	CESAM-PD-D	Deep Draft Navigation Planning Center of Expertise Technical Director	251-694-3841

POLICY AND LEGAL COMPLIANCE REVIEW TEAM			
Name	Office	Position	Phone Number
Young Kim	CENAD-PD-P	Review Manager	347-370-4514
Judy McCrea	CESPD-PD-P	Plan Formulation Reviewer	415-416-0742
Valerie Cappola	CENAD-PD-P	Environmental Reviewer	347-370-4557
Naomi Fraenkel Altschul	CENAD-PD-P	Economic Reviewer	917-359-2819
Carlos Gonzalez	CENAD-PD-RE	Real Estate	347-370-4529
Ralph LaMoglia	CENAD-RB-T	Engineering and Construction Reviewer	347-370-4599
Patricia (Patty) Bolton	CENAD-RB-T	Cost Engineering Reviewer	347-370-4682

POLICY AND LEGAL COMPLIANCE REVIEW TEAM			
Name	Office	Position	Phone Number
Doug Stamper	CENAD-PD-OR	Operations and Regulatory Reviewer	347-370-4608
Jason Shippy	CECC-NAD	Attorney Advisor	347-370-4526
Heidi Moritz	CENWP-ENC-HD	Climate Preparedness and Resilience CoP	503-808-4893

ATTACHMENT 2: RISK INFORMED DECISION MEMORANDUM

CENAB-EN-EN

29 January 2021

MEMORANDUM FOR RECORD

SUBJECT: Baltimore Harbor Anchorages and Channels (BHAC) Modification of Seagirt Loop Channel, Maryland Feasibility Study Review Plan – Risk Informed Assessment for Independent External Peer Review (IEPR)

1. Project Authorization

The study authority for the modification of BHAC serving public terminals in the Port of Baltimore (Port) is pursuant to §216 of the Rivers and Harbors Act of 1970 (Pub. L. No. 91-611, 33U.S.C. §549a), which reads:

The Secretary of the Army, acting through the Chief of Engineers, is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due to the significantly changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest.

The Baltimore Harbor Anchorages and Channel is the constructed USACE project that will be reviewed for modification as part of this study. The study for the BHAC was authorized June 23, 1988, by the Committee on Environment and Public Works, U.S. Senate. The resolution authorizing this study follows:

RESOLVED BY THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS OF THE UNITED STATES SENATE, that the Board of Engineers for Rivers and Harbors is hereby requested to review the reports of the Chief of Engineers on Baltimore Harbor and Channels, Maryland, and Virginia, contained in House Documents Number 94-181, 94th Congress, 1st Session, and Number 86, 85th Congress, 1st Session, and prior reports, with a view to determining if further improvements for navigation, including anchorages and branch channels, are advisable at this time.

The study conducted pursuant to this authority resulted in a Chief's Report dated June 8, 1998, and in project authority in §101(a)(22) of Water Resources Development Act (WRDA) 1999 (Pub. L. No. 106-53).

2. Study Description:

The BHAC study, completed in 1998, resulted in improvements to Baltimore Harbor, including deepening and widening of Anchorages #3 and #4, and widening of branch channels serving Port of Baltimore facilities including the Seagirt, Dundalk, and South Locust Point access channels. Since, completion of the BHAC study, the world fleet has trended towards larger post-Panamax container vessels that can carry over twice the cargo capacity and require deeper drafts than the design vessel selected for channel and anchorage design in the original study. The U.S. Army Corps of Engineers Baltimore District (NAB) is conducting a feasibility study to evaluate the advisability of modifications to the BHAC to accommodate larger vessels including modifications to; Anchorages 3 and/or 4, the South Locust Point Branch Channel and Turning Basin, and the Seagirt Loop Channel, which includes the West Dundalk Branch Channel, the Dundalk-Seagirt Connecting Channel, and the Seagirt West Branch Channel. The non-Federal sponsor for the study is the Maryland Department of Transportation Maryland Port Administration (MDOT MPA).

3. Levels of Review:

Review will include District Quality Control (DQC) and Agency Technical Review (ATR). The subject study is being recommended to be excluded from independent external peer review (IEPR) as detailed in this section.

- DQC – All work products shall undergo DQC.
- ATR – All work products shall undergo ATR.

IEPR – A Type I IEPR is not recommended because the study does not meet any of the mandatory triggers for Type I IEPR detailed in the Interim Guidance on Streamlining Independent External Peer Review (IEPR) for Improved Civil Works Product Delivery Memorandum, 5 April 2019, as summarized in Table 1. Additionally, the scope and nature of the work being proposed in the study includes primarily areas that are part of the existing federal navigation project at Baltimore Harbor, there would be a low risk of life safety concerns with the study or failure of the proposed project, and there is not likely to be significant controversy related to the proposed work or environmental impacts of the proposed actions. A full summary of these factors is described in the subject Review Plan.

Table 1: Type I IEPR Factors for Consideration

	Yes	No
Total Project Costs Greater than \$200 million		X
Governor has Requested Peer Review by Independent Experts		X
Chief of Engineer determined the project study to be controversial due to public dispute over the size, nature, or effects of the project, or the economic or environmental costs or benefits of the project		X

A Type II IEPR is not required as there is not a significant life safety risk related to the study or project. Engineer Circular (EC) 1165-2-217, Review Policy for Civil Works (dated 20 February 2018) lists four factors for determining whether a Type II IEPR is appropriate. Table 2 summarizes the determination for each factor for consideration for Type II IEPR. The subject review plan summarizes each factor in detail.

Table 2: Type II Factor for Consideration

	Yes	No
Significant Threat to Human Life (Public Safety)		X
Use of Innovative Material or Techniques		X
Project Design Requires Redundancy, Resiliency, and Robustness		X
Unique Construction Sequencing or Reduced or Overlapping Design Construction Schedule		X

The threat to human life associated with aspects of the study are less significant than traditional Civil Works projects (e.g. dams and levees) as this is a modification an existing federal navigation project. The consequences of failure have nominal effects on life safety or economic output.

Determination. Neither a Type I nor Type II IEPR is warranted for the Baltimore Harbor Anchorages and Channels Modification of Seagirt Loop Channel, Maryland Feasibility Study.

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Mary P. Foutz, PE
 Chief, Engineering Division

ATTACHMENT 3: DEEP DRAFT NAVIGATION PLANNING CENTER OF EXPERTISE
(DDNPCX) ENDORSEMENT OF REVIEW PLAN



REPLY TO
ATTENTION OF

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

CESAM-PD-D

19 January 2021

MEMORANDUM FOR Mr. Dan Bierly, CENAB-PL-P, U.S. Army Corps of Engineers (USACE), Baltimore District, City Crescent Building, 10 South Howard Street, Baltimore, Maryland 21201

SUBJECT: Review Plan (RP) Endorsement, Baltimore Harbor Anchorages and Channels (BHAC) Modification of Seagirt Loop Channel, Maryland, Integrated Feasibility Report and Environmental Assessment (EA)

1. References.

a. Director of Civil Works Memorandum, 5 April 2019, Interim Guidance on Streamlining Independent External Peer Review (IEPR) for Improved Civil Works Product Delivery

b. Engineer Circular 1165-2-217, 20 February 2018, Review Policy for Civil Works

2. The subject document (Enclosure 1) has been presented to the Deep Draft Navigation Planning Center of Expertise (DDNPCX) for its review and endorsement in accordance with References 1.a. and 1.b.

3. The BHAC Modification of Seagirt Loop Channel study will evaluate improvements to the branch channels and anchorages of the BHAC Federal navigation project. Dredged material placement will occur consistent with the Harbor's existing Dredged Material Management Plan, most recently updated in 2017, including upland confined placement in approved sites for material unsuitable for open water placement. An EA will be prepared.

4. The DDNPCX concurs with the level and scope of review identified and supported in the RP, including the determination that Type I IEPR is not warranted. As documented, the project does not meet any of the mandatory triggers requiring Type I IEPR: the estimated total project cost is less than \$200 million, the Governor of Maryland has not requested peer review by independent experts, and the Chief of Engineers has not determined that the project study is controversial due to significant public dispute over the size, nature, effects, or environmental costs or benefits of the project. The District's risk informed assessment leading to that conclusion is documented in RP Sections 5 and 6.E.

CESAM-PD-D

19 January 2021

SUBJECT: Review Plan (RP) Endorsement, Baltimore Harbor Anchorages and Channels (BHAC) Modification of Seagirt Loop Channel, Maryland, Integrated Feasibility Report and Environmental Assessment (EA)

5. The RP was reviewed for technical sufficiency and policy compliance by the undersigned. The RP checklist that documents that review is provided as Enclosure 2.

6. The DDNPCX recommends the RP for approval by the Major Subordinate Command (MSC) Commander. Following approval, please provide the DDNPCX with a copy of the MSC Commander's Approval Memorandum and a link to where the RP is posted on the District website. Prior to posting, the names of individuals identified in the RP should be removed (RP Attachment).

7. Thank you for the opportunity to assist in the preparation of the RP. Please coordinate any review related efforts outlined in the RP with the undersigned at (251) 694-3842.

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Encls

KIMBERLY P. OTTO
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CF:

CENAB-PL-P (Santiago, Roach)

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CESAD-PDP (Summa, Small)

REVIEW PLAN CHECKLIST For DECISION DOCUMENTS				
Date:	19 January 2021			
Originating District:	Baltimore			
Project/Study Title:	Baltimore Harbor Anchorages and Channels Modification of Seagirt Loop Channel, Maryland, Integrated Feasibility Report and EA			
P2#	466610			
District POC:	Luis Santiago			
PCX Reviewer:	Kim Otto			
Please fill out this checklist and submit with the draft Review Plan when coordinating with the DDNPCX. Unless otherwise noted, references are to paragraphs in Engineer Circular (EC) 1165-2-217.				
REQUIREMENT	REFERENCE	EVALUATION		
1. Is the Review Plan (RP) a standalone document?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it include a cover page identifying it as a RP and listing the project/study title, originating district or office, and date of the plan?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Is the purpose of the RP clearly stated and EC 1165-2-217 referenced?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does it reference the Project Management Plan (PMP) of which the RP is a component?	Paragraph 7.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR)?	Paragraphs 7.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e. Does it identify the subject and purpose of the decision document to be reviewed?	Paragraph 7.e.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
f. Does it list the names and disciplines of the Project Delivery Team (PDT)?*			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Is the RP detailed enough to assess the necessary level and focus of peer review?	Paragraph 7.a.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it indicate which parts of the study will likely be challenging?	Paragraph 7.a.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it provide a preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be?	Paragraph 7.a.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3. Mandatory triggers requiring Type I IEPR include:				
a. Is the estimated total cost of the project including mitigation costs greater than \$200 million? <i>If yes, IEPR may be required.</i>	Paragraph 11.d.(1)(b)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
b. Has the Governor of an affected state requested peer review by independent experts? <i>If yes, IEPR is required.</i>	Paragraph 11.d.(1)(c)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
c. Is the project study controversial due to significant public dispute over the size, nature, or effects of the project or the economic or environmental costs or benefits of the project?	Paragraph 11.d.(1)(d)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<i>If yes, the Chief of Engineers would determine the project study to be controversial and IEPR is required.</i>				

4. Additional considerations whether Type I IEPR may be warranted include:				
a. Will an environmental impact statement (EIS) be prepared?	Paragraph 11.d.(4)(a)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
b. Is the project controversial?	Paragraph 11.d.(4)(a)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
c. Will the project have more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources?	Paragraph 11.d.(4)(a)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
d. Will the project have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?	Paragraph 11.d.(4)(a)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
e. Will the project have, before implementation of mitigation measures, more than a negligible adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 or the critical habitat of such species designated under such Act?	Paragraph 11.d.(4)(a)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5. Does the RP address Safety Assurance Review (SAR) factors?	Paragraph 12.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Are design and construction activities justified by life safety?	Paragraph 12.h.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
b. Will failure of the project pose a significant threat to human life?	Paragraph 12.h.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<i>If yes to either 5 a. or b., Type II IEPR (SAR) may be appropriate.</i>				
<i>Other factors considered when determining whether to conduct Type II IEPR include whether the project/project design require:</i>				
c. The use of innovative materials or techniques and the engineering is based on novel methods\complexity\ precedent-setting models or methods, or presents conclusions that are likely to change prevailing practices?	Paragraph 12.i.(1)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
d. Redundancy, resiliency, and robustness?	Paragraph 12.i.(2)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
e. Unique construction sequencing or a reduced or overlapping design construction schedule?	Paragraph 12.i.(3)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6. Does the RP define the appropriate level of peer review for the project/study?	Paragraph 7.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	Paragraph 8.a.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it state that ATR will be conducted or managed by the lead PCX?	Paragraph 9.c.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does it state whether IEPR will be performed?	Paragraph 7.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. Will an IEPR be performed?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
e. Does it provide a defensible rationale for the decision on IEPR?	Paragraph 7.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
f. Does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers?	Paragraph 11.c.	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?	Paragraph 7.e.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

a. Does it provide a schedule for DQC of the draft and final reports and other supporting materials?	Paragraph 7.e.(2)(b)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it include interim DQC reviews for milestone submittals?	Planning Bulletin 2018-01 Feasibility Study Milestones		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does it provide a schedule for ATR of the draft and final reports and other supporting materials?	Paragraph 7.e.(2)(b)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. Does it include interim (targeted) ATR for key technical products?	Paragraph 8.a.(1) and 9.i.(1)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
e. Does it present the timing and sequencing for IEPR?	Paragraph 7.e.(2)(b)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
f. Does it present the timing and sequencing for Policy and Legal reviews?	Paragraph 7.e.(2)(b)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
g. Does it include cost estimates for the peer reviews?	Paragraph 7.a.(2)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8. Does the RP explain how ATR will be accomplished?	Paragraphs 7 and 9		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it identify the anticipated number of reviewers?	Paragraph 7.e.(6)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)?	Paragraph 7.e.(5)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does it indicate that ATR team members will be from outside the home district?	Paragraph 9.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
d. Does it indicate that the ATR team leader will be from outside the home MSC?	Paragraph 9.a.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
e. Does the RP state that the lead PCX is responsible for identifying the ATR team members?	Paragraph 9.h.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
f. If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?		<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
9. Does the RP explain how IEPR will be accomplished?	Paragraphs 7 and 11	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it identify the anticipated number of reviewers?	Paragraph 7.e.(6)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)?	Paragraph 7.e.(5)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does it indicate that the IEPR reviewers will be selected by an Outside Eligible Organization?	Paragraph 11.g.(1)(a)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
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?	Paragraph 11.g.		<input type="checkbox"/> Yes	<input type="checkbox"/> No
10. Does the RP address peer review of sponsor in-kind contributions?		<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does the RP list the expected in-kind contributions to be provided by the sponsor?	Paragraph 7.e.(9)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it explain how peer review will be accomplished for those in-kind contributions?	Paragraphs 7 and 9		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
11. Does the RP address how peer review will be documented?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

a. Does the RP address the requirement to document ATR comments using DrChecks?	Paragraph 9.l.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does the RP explain how the IEPR will be documented in a Review Report?	Paragraphs 7.e.(15) and 11.i.	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does the RP document how written responses to the IEPR Review Report will be prepared?	Paragraph 7.e.(15)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
d. Does the RP detail how the District/PCX will disseminate the final IEPR Review Report, USACE response, and all other materials related to the IEPR on the internet and include them in the applicable decision document?	Paragraphs 7.e.(15) and 11.i.	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
12. Does the RP address Policy Compliance and Legal Review?	Paragraph 14		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
13. Does the RP address model certification requirements?	EC 1105-2-412 and EC 1165-2-217 Paragraph 7.a.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it list the models and data anticipated to be used in developing recommendations (including mitigation models)?	Paragraph 7.e.(8)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it indicate the certification/approval status of those models and if certification or approval of any model(s) will be needed?	Paragraph 7.e.(8)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. If needed, does the RP propose the appropriate level of certification/approval for the model(s) and how it will be accomplished?	EC 1105-2-412 and EC 1165-2-217 Paragraph 7.e.	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
14. Does the RP address opportunities for public participation?	Paragraph 7.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it indicate whether there will be opportunity for the public to comment on the PCX endorsed and MSC approved RP?	Paragraph 7.g.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Does it indicate how and when there will be opportunities for public comment on the decision document?	EC 1105-2-410 and EC 1165-2-217 Paragraph 7.e.(3)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. Does it indicate when significant and relevant public comments will be provided to reviewers?	Paragraph 7.e.(4)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
d. Does it address whether the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers?	Paragraph 7.e.(7)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No
e. Does the RP list points of contact at the home District, the PCX and the MSC for inquiries about the RP?	Paragraph 7.e.(1)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
15. Does the RP address coordination with the appropriate Planning Center(s) of Expertise?	Paragraph 9.c.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Does it state if the project is single or multi-purpose? Single <input checked="" type="checkbox"/> Multi <input type="checkbox"/>	Paragraph 9.c.(1)(a)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<i>List purpose(s): Deep Draft Navigation</i>				
b. Does it identify the lead PCX for peer review? <i>Identify PCX: DDNPCX</i>	Paragraph 9.c.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. If multi-purpose, has the lead PCX coordinated the review of the RP with the other PCXs as appropriate?	Paragraph 9.c.(1)(a)	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No

16. Does the RP address coordination with the Cost Engineering Mandatory Center of Expertise (MCX) in Walla Walla District for ATR and certification of cost estimates?	Paragraph. 9.c.(1)(c)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Will the decision document require Congressional authorization?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
17. Other Considerations: Were any of the following addressed in the RP:			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
a. Is the home district expecting to submit a request to exclude the project study from IEPR?	Paragraph 11		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Are there additional Peer Review requirements specific to the home MSC or District (as described in the Quality Management Plan)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<i>If yes, describe:</i>				
c. Are there additional Peer Review needs unique to the project study?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<i>If yes, describe:</i>				