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

REPLY TO
ATTENTION OF

CESAD-CG

MEMORANDUM FOR

9 APR 2015

Commander, Charleston District
Commander, Jacksonville District
Commander, Mobile District
Commander, Savannah District
Commander, Wilmington District

SUBJECT: South Atlantic Division Regional Programmatic Review Plan for the Continuing Authorities Program

1. References:

a. EC 1165-2-214, 15 December 2012, Civil Works Review.

b. Memorandum, 19 January 2011, CECW-P, subject: Continuing Authority Program Planning Process Improvements.

c. ER 1110-1-12, 31 March 2011, Quality Management, Change #2.

2. To improve execution in the Continuing Authorities Program (CAP), the South Atlantic Division (SAD) has created the enclosed Regional Programmatic Review Plan for CAP decision documents. This review plan is effective immediately for all CAP decision documents that have yet to submit an individual review plan to SAD.

3. The vast majority of CAP studies under Section 14, Section 107, Section 111, Section 204, Section 206, and Section 1135 will be able to make a risk informed decision per Enclosure B of the regional programmatic review plan that Independent External Peer Review (IEPR) does not apply. This regional programmatic review plan can then be used and referenced in the Project Management Plan (PMP) for the study. If the risk informed decision is that an individual review plan is appropriate, then the District shall submit an individual review plan to SAD following the template that is Enclosure A of the regional programmatic review plan. This will be particularly applicable for CAP Section 103 Coastal Storm Risk Management and CAP Section 205 Flood Risk Management studies where life safety is a key concern.

4. Per paragraph 2.a.(5) of Appendix G, EC 1165-2-214, I explicitly approve the Agency Technical Review (ATR) Lead to be from within SAD for CAP studies when the regional programmatic review plan is used, or the Enclosure A template for an individual review

plan is used. The ATR Lead shall not have prior involvement with the study and shall not be from the district conducting the study.

5. The point of contact for this action is Patrick O'Donnell, 404-562-5226.

Encl
as

C. DAVID TURNER
Brigadier General, USA
Commanding

South Atlantic Division

CONTINUING AUTHORITIES PROGRAM

REGIONAL PROGRAMMATIC REVIEW PLAN FOR DECISION DOCUMENTS

US Army Corps of Engineers

April 2015

1. Overview. This document serves as the South Atlantic Division (SAD) Review Plan for all documentation required for Continuing Authorities Program (CAP) decision documents as required by EC 1165-2-214 (Civil Works Review) that became effective 15 December 2012, and by the Director of Civil Works Policy Memorandum #1 (CECW-P memorandum, Subject: Continuing Authority Program Planning Process Improvements), 19 Jan 2011. The purpose of this Review Plan is to define the requirements of how reviews will be conducted for CAP decision documents. CAP Implementation Documents/Products are not addressed in this Review Plan.

2. Applicability. The Continuing Authorities Program (CAP) focuses on water resource related projects of relatively smaller scope, cost and complexity. Traditional USACE civil works projects are of wider scope and complexity and are specifically authorized by Congress. The Continuing Authorities Program is a delegated authority to plan, design, and construct certain types of water resource and environmental restoration projects without specific Congressional authorization. This Review Plan applies to all documentation required for review of CAP decision documents within SAD for the following CAP authorities:

2.1. Section 14 *of the Flood Control Act of 1946, as amended, authorizes the US Army Corps of Engineers (USACE) to study, design and construct emergency streambank and shoreline works to protect public services including (but not limited to) streets, bridges, schools, water and sewer lines, National Register sites, and churches from damage or loss by natural erosion.*

2.2. Section 107 *of the River and Harbor Act of 1960, as amended, authorizes the Corps to study, adopt, construct and maintain navigation projects. .*

2.3. Section 111 *of the Rivers and Harbors Act of 1968, as amended, authorizes the US Army Corps of Engineers (USACE) to investigate, study, plan and implement measures (structural or nonstructural) to prevent or mitigate damage to shorelines attributable to Federal navigation projects.*

2.4. Section 204 *of the Water Resources Development Act of 1992, Public Law 102-580, provides the authority to carry out projects to reduce storm damage to property; to protect, restore and create aquatic and ecologically related habitats, including wetlands; and to transport and place suitable sediment, in connection with dredging for construction, operation, or maintenance by the Secretary of an authorized Federal water resources project.*

2.5. Section 206 *of the Water Resources Development Act of 1996, Public Law 104-305, authorizes the Secretary of the Army to carry out a program of aquatic ecosystem restoration with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and*

along bodies of water, including wetlands and riparian areas. This authority also allows for dam removal.

2.6. Section 208 *of the Flood Control Act 1954, as amended, authorizes the US Army Corps of Engineers (USACE) to study, adopt and construct in-stream clearing and snagging projects in the interest of flood risk management.*

2.7. Section 1135 *of the Water Resources Development Act of 1986, Public Law 99-662, provides the authority to modify existing Corps projects to restore the environment and construct new projects to restore areas degraded by Corps projects with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas.*

2.8. Section 103 *of the Rivers and Harbors Act of 1962, as amended, authorizes the US Army Corps of Engineers (USACE) to study, adopt and construct continuing authority beach erosion control (coastal storm damage reduction) projects.*

2.9. Section 205 *of the Flood Control Act of 1948, as amended, authorizes USACE to study, design and construct flood risk management projects.*

Additional Information on this program can be found in Engineer Regulation 1105-2-100, Planning Guidance Notebook, Appendix F.

3. District Quality Control (DQC). DQC is required for all CAP decision documents in the feasibility phase and must be documented. All DQC documentation throughout the study process must be provided to the Agency Technical Review (ATR) team prior to their conduct of ATR, as described in Section 4 below. DQC means quality checks and reviews that occur during the document 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. All DQC efforts will include the necessary expertise to address compliance with published Corps policy. The DQC documentation will be kept in the project files for internal and external Quality Assurance audits to check for proper DQC implementation.

4. Agency Technical Review (ATR)

ATR is mandatory for all CAP decision documents (including supporting data, analyses, environmental compliance documents, etc.); which is typically the draft and final feasibility report. ATR of the final feasibility report should normally only require

backcheck of the draft report ATR comments to ensure they were addressed. Study Initiation Reports (SIR) are conducted prior to the feasibility phase and do not require ATR. Federal Interest Determination (FID) submittal packages are provided early in the feasibility phase and do not constitute a decision document; therefore they do not require ATR. The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that any document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR review must include a review of DQC documentation. ATR for CAP decision documents is managed by SAD, which is the designated Review Management Organization (RMO). SAD will seek advice from the Planning Centers of Expertise (PCXs) as needed and may request that a PCX perform the RMO function on a particular study. Guidance on conducting ATR can be found in EC 1165-2-214, Civil Works Review.

a. DrChecks must be used to document ATR comments and responses.

b. ATR certification will be documented using Attachment C-1 in Appendix C of EC 1165-2-214.

c. The ATR will be conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product.

d. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate.

e. The disciplines represented on the ATR team should mirror the significant disciplines involved in the generation of the decision document.

f. ATR teams must include a reviewer with knowledge of and experience with any models used during the conduct of the study.

g. ATR of the cost estimate may be conducted by pre-certified district cost personnel within the region as designated by the Walla Walla Cost MCX. The precertified list of cost personnel has been established and is maintained by the Cost MCX. The cost ATR member will coordinate with the Cost MCX for execution of cost ATR and cost certification. The Cost MCX will be responsible for final cost certification and may be delegated at the discretion of the Cost MCX.

5. Independent External Peer Review (IEPR)

There are two types of IEPR:

- Type I IEPR. 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. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214.

- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life.

CAP studies that do not require a Type I IEPR are not envisioned by the District Chief of Engineering, as the Engineer-In-Responsible-Charge, to need a Type II IEPR Safety Assurance Review during the feasibility phase. This specific determination for the CAP project is documented by completing **Enclosure B**. A risk-informed decision concerning the timing and appropriate level of reviews for the project implementation phase will be prepared and submitted for approval in an updated Review Plan prior to initiation of the design/implementation phase of the project.

5.1. Section 14, 107, 111, 204, 206, 208 and 1135 project decision documents, implementation documents and other CAP products do NOT typically require Type I Independent External Peer Review (IEPR), as defined in EC 1165-2-214 Civil Works Review. There may be rare cases where a Section 14, 107, 111, 204, 206, 208 or 1135 CAP product does not meet all of the IEPR exclusion criteria listed in section 5.2.1 below. When that is the case, follow the guidance in Section 5.2 below. Districts will complete **Enclosure B** indicating that they have reviewed the criteria and either (a) Type I IEPR does not apply, or (b) not all Type I IEPR exclusion criteria are met and a written risk-informed decision analysis will be conducted to determine whether a Type I IEPR is appropriate. Districts do not submit Enclosure B to SAD for any CAP studies under Sections 14, 107, 111, 204, 206, 208 and 1135. Instead, districts only submit the completed enclosure B to SAD when the district determines that the Type I IEPR exclusion criteria in 5.2.1 below are not met.

5.2. Section 103 and Section 205 CAP products may require a Type I IEPR. Based on a review of the Type I IEPR criteria set forth in Section 5.2.1. below, the home district must complete Enclosure B for all Section 103 and Section 205 CAP products, which is a written risk-based decision analysis on whether a Type I IEPR is applicable, and submit the analysis to SAD for review and concurrence. SAD encourages, but does not require, districts to consult with the appropriate Planning Center of Expertise (PCX). For Section 103 the PCX is the Coastal Storm Risk Management PCX (CSRMPCX). For Section 205 the PCX is the Flood Risk Management PCX (FRMPCX).

5.2.1. As set forth in EC 1165-2-214, the specific Type I IEPR exclusion criteria are as follows:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than $200 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS),
- The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
- The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;
- The information in the decision document or 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 design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and
- There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.

5.3 If the district's risk-informed decision analysis recommends a Type I IEPR exclusion, and SAD concurs based upon its review of the analysis , SAD will provide a concurrence memo signed by the SAD Commander to the home district. The district may then apply this CAP regional programmatic review plan. If SAD determines that Type I IEPR is applicable, SAD will provide a non-concurrence memo signed by the SAD Commander to the home district, and a study specific review plan must be prepared by the home district utilizing **Enclosure A.** The specific review plan must be coordinated with the appropriate Planning Center of Expertise (PCX) and submitted to SAD for approval by the SAD Commander. The home district will submit the review plan, cover memo, and PCX endorsement memo to SAD for approval. Approval must be by the SAD Commander. Because Type 1 IEPR typically will be applicable for Section 205 documents, Districts should expect to create a study-specific review plan until it is determined otherwise. Approval not to conduct Type 1 IEPR for Section 205 documents is expected to be rare.

6. Model Certification And Approval

As stated in the Director of Civil Works Policy Memorandum #1 (CECW-P memorandum, Subject: Continuing Authority Program Planning Process Improvements), 19 January 2011, approval of planning models is not required for CAP projects. MSC commanders remain responsible for assuring the quality of the analysis used in these projects. ATR will be used to ensure that models and analyses are compliant with Corps policy, theoretically sound, computationally accurate, transparent,

described to address any limitations of the model or its use, and documented in study reports.

7. This CAP Regional Programmatic Review Plan is hereby approved for implementation.

Districts shall reference this CAP Regional Programmatic Review Plan as part of the Quality Management Plan section in each Project Management Plan submitted to SAD as part of the Federal Interest Determination (FID) package. The PMP must show the estimated cost and schedule for conducting DQC and ATR. For projects that will conduct Type I IEPR and therefore will have individual Review Plans, the PMP will cite the project specific Review Plan and will include the estimated cost and schedule for Type I IEPR.

8. Updates and Approvals of this Review Plan.

Modifications to this CAP Regional Programmatic Review Plan may be made by submitting a request through the SAD CAP Manager to the MSC Commander.

9 April 2015

C. DAVID TURNER
Brigadier General, USA
Commanding

Date

Enclosure A- Review Plan Template

Enclosure B- Risk Based IEPR Decision Analysis/CAP Regional Programmatic Review Plan Applicability Determination

South Atlantic Division
CAP Regional Programmatic Review Plan for Decision Documents

ENCLOSURE A
REVIEW PLAN TEMPLATE

SAD NOTES ON REVIEW PLANS:

(1) IF YOU NEED A DISCIPLINE ON THE PDT, YOU PROBABLY NEED THAT DISCIPLINE ON THE ATR TEAM.

(2) IF A MODEL WILL BE USED FOR THE STUDY, ATR QUALIFICATIONS SHOULD INCLUDE A DESCRIPTION THAT THE RELEVANT ATR MEMBER HAS KNOWLEDGE AND EXPERIENCE OF THE MODEL.

(3) FOR ATTACHMENT 4, ACRONYMS AND ABBREVIATIONS, EDIT AS NEEDED SO THAT THE ACRONYMS AND ABBREVIATIONS ARE ONES USED IN THE REVIEW PLAN.

(4) BE REASONABLE IN THE AMOUNT OF TIME ALLOTED IN THE SCHEDULE FOR ATR REVIEWS. AT A MINIMUM, ATR DRCHECKS FORMAL REVIEWS ARE FOR DRAFT AND FINAL REPORTS. THE FINAL REPORT ATR WILL TYPICALLY BE A BACKCHECK ONLY TO SEE IF COMMENTS ON THE DRAFT WERE ADDRESSED, UNLESS CHANGES TO THE DOCUMENT AFTER THE DRAFT REPORT ARE SO SIGNIFICANT AS TO MERIT A MORE THOROUGH AND FORMAL ADDITIONAL REVIEW .

REVIEW PLAN

Study Name and Location of Proposed Project
Decision Document Type

Home District

P2#

MSC Approval Date: *(enter date of approval, or state 'Pending' if not yet approved)*
Last Revision Date: *(enter date of last revision, 'none' if no changes since last approved by MSC, or leave blank if "pending")*

Template Date 19Dec2014

NOTE: This template is intended to assist in the development of review plans for Civil Works **decision documents** and similar Other Work Products in accordance with EC 1165-2-214 and to provide some consistency across districts. Typical text likely to be common to all review plans is provided in normal black font. Areas where study specific information must be added is shown in *underlined blue italic font*. Supplemental information is shown in red text in a text box (like this note) and should be deleted in the final review plan. In coordination with the Decision Document Review Plan Checklist, the template is a useful tool, but it does not replace knowledge of applicable Corps guidance or the responsibility of the PDT to prepare a quality and complete review plan that reflects the specific needs of the study and any specific MSC/District quality management requirements. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

US Army Corps of Engineers ®

REVIEW PLAN

Study Name and Location of Proposed Project
Decision Document Type

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose. This review plan defines the scope and level of peer review for the *name and type of decision document*.

b. References

(1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 December 2012
(2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
(3) Engineer Regulation (ER) 1110-1-12, Quality Management, Change #2, 31 March 2011
(4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
(5) *PMP for study*
(6) *MSC and/or District Quality Management Plan(s)- (if applicable), name specifically.*
(7) *Any other relevant quality control/quality assurance guidance – if applicable. Delete if additional specific qc/qa guidance is not referenced.*

c. Requirements. This review plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-214) and planning models are subject to certification/approval.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. However, for CAP decision documents the RMO can be the Major Subordinate Command (MSC), which in this case is the South Atlantic Division. The RMO for the peer review effort described in this Review Plan is the South Atlantic Division.

The RMO will coordinate with the Cost Engineering Mandated Center of Expertise / Technical Center of Expertise (MCX/TCX) at Walla Walla District to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies. *For multi-purpose studies, also*

indicate the names of the other relevant PCXs and state that the RMO will coordinate with the other appropriate PCXs to ensure that review teams with appropriate expertise are assembled. For studies that involve life safety issues, identify the role of the RMC in the review.

3. STUDY INFORMATION

a. Decision Document. *This section should state the authorized name and location of the project/study, type of decision document to be prepared, and purpose of the document. It should also indicate the level of approval for the document (e.g. MSC, HQUSACE, Chief of Engineers) and if it will require Congressional authorization. Finally, it should indicate what type of National Environmental Policy Act (NEPA) documentation, if any, will be prepared along with the document.*

b. Study/Project Description. *This section should provide basic background information on the study/project to provide an overview for the PCX, PDT, review teams, vertical team, and public. At a minimum, it should briefly describe the study area (with a map, as appropriate), if the study is single- or multi-purpose the project purpose(s) (e.g., flood risk management, ecosystem restoration, deep draft navigation, etc), the types of measures/alternatives to be considered in the study, the estimated cost (or range of cost) for a potentially recommended plan, and the identity of the non-Federal sponsor(s). It should also identify pertinent study/project authorizations and vertical team implementation guidance.*

c. Factors Affecting the Scope and Level of Review. *This section should discuss the factors affecting the risk informed decisions on the appropriate scope and level of review. The discussion must be sufficiently detailed to assess the level and focus of review and support the PDT, PCX, and vertical team decisions on the appropriate level of review and types of expertise represented on the various review teams. At minimum, this section should address:*

SHOW EACH BULLET FACTOR BELOW IN THE REVIEW PLAN, THEN ANSWER THE FACTOR- DELETE THIS TEXT BOX BEFORE FINALIZING. DELETE THE EXPLANATIONS IN PARENTHESES ON ALL BULLET POINTS BEFORE FINALIZING THE REVIEW PLAN

- *If the project has a cost estimate of more than $200 million*
- *If parts of the study will likely be challenging (with some discussion as to why or why not and, if so, in what ways – consider technical, institutional, and social challenges, etc.*); and
- *A preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be (e.g., what are the uncertainties and how might they affect the success of the project);*
- *If the project will likely be justified by life safety or if the project likely involves significant threat to human life/safety assurance (with some discussion as to why or why not and, if so, in what ways – consider at minimum the safety assurance factors described in EC 1165-2-214 including, but not necessarily limited to, the*

consequences of non-performance on project economics, the environmental and social well-being [public safety and social justice]; residual risk; uncertainty due to climate variability, etc.) – the discussion of life safety should include the assessment of the home District Chief of Engineering on whether there is a significant threat to human life associated with the project (per EC 1165-2-214);

- *If there is a request by the Governor of an affected state for a peer review by independent experts;*
- *If the project/study is likely to involve significant public dispute as to the size, nature, or effects of the project (with some discussion as to why or why not and, if so, in what ways);*
- *If the project/study is likely to involve significant public dispute as to the economic or environmental cost or benefit of the project (with some discussion as to why or why not and, if so, in what ways);*
- *If the information in the decision document or anticipated project design is 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 (with some discussion as to why or why not and, if so, in what ways); and*
- *If the project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule (with some discussion as to why or why not and, if so, in what ways).*

NOTE: This sub-section supports the decision on whether or not to perform IEPR, but the actual decision is documented in Section 6 – Independent External Peer Review. The information in this sub-section also supports decisions on the scope of ATR/IEPR and the expertise needed on the ATR/IEPR teams. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR to the same level as Corps products and analyses for the applicable decision document. The in-kind products and analyses to be provided by the non-Federal sponsor include: *This section should list the expected in-kind products/analyses to be provided by the sponsor, or indicate if no in-kind products are anticipated.*

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in

NOTE: This Section of the review plan should be tailored to meet the requirements of the District/MSC Quality Management Plans for DQC. A possible format is suggested below; however, **AT MINIMUM** this section should identify how DQC will be documented and what DQC documentation will be provided to the ATR team at each review (see sub-section a. below). Per EC 1165-2-214, Paragraph 8d, for each ATR event, the ATR team will examine relevant DQC records and provide written comment in the ATR report as to the apparent adequacy of the DQC effort. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

accordance with the Quality Manual of the District and the South Atlantic Division. When policy and/or legal concerns arise during DQC efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek immediate issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, Amendment #1, ER 1105-2-100 or other appropriate guidance.

a. Documentation of DQC. *This mandatory section should identify how DQC will be documented and what DQC documentation will be provided to the ATR team at each review.*

b. Products to Undergo DQC. *This optional section could identify the products to undergo DQC consistent with the District/SAD Quality Management plans.*

c. Required DQC Expertise. *This optional section could identify the required expertise needed to conduct DQC consistent with the District/SAD Quality Management plans.*

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from within the home MSC but will not have been involved in the study.

a. Products to Undergo ATR. *This section should list the specific products to undergo ATR. At a minimum (where applicable), ATR should be performed for the, Draft Report (including NEPA and supporting documentation), and Final Report*

(including NEPA and supporting documentation) as a backcheck to ensure draft report comments were incorprated. Additional ATR of key technical and interim products, MSC-specific milestone documentation, and In-Progress Review (IPR) documentation should occur depending on the study needs and the requirements of MSC/District Quality Management Plans. Where practicable, technical products that support subsequent analyses should be reviewed prior to being used in the study and may include: surveys & maps, hydrology & hydraulics, geotechnical investigations, economic, environmental, cultural, and social inventories, annual damage and benefit estimates, cost estimates, etc.

b. Required ATR Team Expertise. *This section should provide an estimate of the number of ATR team members and briefly describe the types of expertise that should be represented on the ATR team (not just a list of disciplines). The expertise represented on the ATR team must reflect the significant expertise involved in the work effort and will generally mirror the expertise on the PDT. The PDT should make the initial assessment of what expertise is needed based on the PMP and the factors affecting the scope and level of review outlined in Section 3 of the review plan and may suggest candidates. The appropriate RMO, in cooperation with the PDT, vertical team, and other appropriate Centers of Expertise, will determine the final composition of the ATR team. The following table provides examples of the types of disciplines that might be included on the ATR team and some sample descriptions of the expertise required. Pick from the listed disciplines and/or add additional disciplines as needed and provide a short description of the expertise required for each discipline. The names, organizations, contact information, credentials, and years of experience of the ATR members must be included in Attachment 1 after the ATR team is established.*

SAD NOTES: ATR TEAM MEMBERS MUST INCLUDE REVIEWERS QUALIFIED TO REVIEW THE ENGINEERING AND PLANNING MODELS LISTED IN SECTION 9 (e.g. IF USING HEC-RAS, STATE OR IDENTIFY WHICH ATR TEAM MEMBERS MUST HAVE HEC-RAS EXPERIENCE). SAD EXPECTS A MINIMUM OF FIVE YEARS OF EXPERIENCE AND PROFESSIONAL ENGINEER CERTIFICATION (P.E.) FOR ENGINEERING ATR TEAM MEMBERS IN CIVIL, H&H, GEOTECHNICAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DISCIPLINES. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead will be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead will also 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	The Plan Formulation reviewer will be approved to perform ATR for the specific type of study, and will be a senior water resources planner with experience in *… the specific experience/credentials required for the reviewer should be added here.*
Economics	The Economics reviewer will be approved to perform ATR for the specific type of study, and ….*… the specific experience/credentials required for the reviewer should be added here.*
Environmental Resources	The Environmental reviewer will be approved to perform ATR for the specific type of study, and ….*… the specific experience/credentials required for the reviewer should be added here.*
Cultural Resources	
Hydrology	
Hydraulic Engineering	*Example Description: The hydraulic engineering reviewer will be an expert in the field of hydraulics and have a thorough understanding of <insert specific requirements based on study objectives and proposed measures – for example, knowledge of open channel dynamics, enclosed channel systems, application of detention/retention basins, application of levees and flood walls, non-structural solutions involving flood warning systems and flood proofing, etc and/or computer modeling techniques that will be used such as HEC-RAS, FLO-2D, UNET, TABS, etc>. The reviewer will have a minimum of five years experience and be a Professional Engineer (P.E.)*
Risk Analysis	*Required for FRM studies to ensure compliance with ER 1105-2-101. Example Description: The risk analysis reviewer will be experienced with performing and presenting risk analyses in accordance with ER 1105-2-101 and other related guidance, including familiarity with how information from the various disciplines involved in the analysis interact and affect the results. The reviewer will have a minimum of five years experience and be a Professional Engineer (P.E.)*
Coastal Engineering	*FOR ALL ENGINEERING DISCIPLINES SAD PREFERS AT LEAST FIVE YEARS OF EXPERIENCE AND A P.E. UNLESS THERE IS A REASON PROVIDED AS TO WHY THIS IS NOT NEEDED*

Geotechnical Engineering	*FOR ALL ENGINEERING DISCIPLINES SAD PREFERS AT LEAST FIVE YEARS OF EXPERIENCE AND A P.E. UNLESS THERE IS A REASON PROVIDED AS TO WHY THIS IS NOT NEEDED*
Civil Engineering	*FOR ALL ENGINEERING DISCIPLINES SAD PREFERS AT LEAST FIVE YEARS OF EXPERIENCE AND A P.E. UNLESS THERE IS A REASON PROVIDED AS TO WHY THIS IS NOT NEEDED*
Structural Engineering	*FOR ALL ENGINEERING DISCIPLINES SAD PREFERS AT LEAST FIVE YEARS OF EXPERIENCE AND A P.E. UNLESS THERE IS A REASON PROVIDED AS TO WHY THIS IS NOT NEEDED*
Electrical/Mechanical Engineering	*FOR ALL ENGINEERING DISCIPLINES SAD PREFERS AT LEAST FIVE YEARS EXPERIENCE AND A P.E. UNLESS THERE IS A REASON PROVIDED AS TO WHY THIS IS NOT NEEDED*
Cost Engineering	The Cost Engineering reviewer must be from the Civil Works Cost Engineering and Agency Technical Review Mandatory Center of Expertise (Cost MCX) in Walla Walla District, or must be on the Cost MCX approved list of delegated Cost ATR reviewers.
Construction/Operations	
Real Estate	The Real Estate reviewer must have expertise in the real estate planning process for cost shared and full federal civil works projects, relocations, report preparation and acquisition of real estate interests. The reviewer should have a full working knowledge of EC 405-2-12, Real Estate Planning and Acquisition Responsibilities for Civil Works Projects, the portions of ER 405-2-12 that are currently applicable, and Public Law 91-646 "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970". The reviewer should be able to identify areas of the Real Estate Plan that are not in compliance with the guidance set forth in EC405-2-12 and should make recommendation for bringing the report into compliance. All estates suggested for use should be termed sufficient to allow project construction, and the real estate cost estimate should be validated as being adequate to allow for real estate acquisition.
Hazardous, Toxic and Radioactive Waste (HTRW)	
Pick from the above disciplines (delete any disciplines that are not applicable) and add other	*Add the expertise required for each discipline based on the specific needs of the study…*

disciplines as appropriate…	

c. Documentation of ATR. DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

(1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
(2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
(3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
(4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially when addressing incomplete or unclear information, ATR team members may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and

- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB (if applicable), draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

Type I IEPR is required for all decision documents except where no mandatory triggers apply, criteria for an exclusion are met, and a risk-informed recommendation justifies exclusion. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Decision documents must undergo a Type I IEPR unless HQUSACE grants an exclusion. Type I IEPR reviews are managed outside the USACE and are conducted on project 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. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214.

- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the

adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

a. Decision on IEPR. *This section should document the risk informed decision on whether IEPR (Type I, Type II, both or neither) will or will not be conducted for the decision document and, if appropriate, follow-on project implementation. The decision should be based on the criteria in EC 1165-2-214 and the discussion in Section 3 – Factors Affecting the Scope and Level of Review. If an exclusion to Type I IEPR is being requested, the basis for and status of the exclusion should be discussed. Furthermore, the recommendation must make the case that the study is so limited in scope or impact that it would not significantly benefit from Type I IEPR. If Type II IEPR is not considered appropriate, the basis for this decision should also be discussed. The risk informed decision should explicitly consider:*

- *If the decision document meets the mandatory triggers for Type I IEPR described in Paragraph 11.d.(1) and Appendix D of EC 1165-2-214; and if it doesn't, then also:*
  - *The consequences of non-performance on project economics, the environmental and social well-being (public safety and social justice);*
  - *Whether the product is likely to contain influential scientific information or be highly influential scientific assessment; and*
  - *If and how the decision document meets any of the possible exclusions described in Paragraph 11.d.(3) and Appendix D of EC 1165-2-214.*
- *The status of any request to conduct IEPR from a head of a Federal or state agency charged with reviewing the project, if applicable; and*
- *If the proposed project meets the criteria for conducting Type II IEPR described in Paragraph 2 of Appendix D of EC 1165-2-214, including:*
  - *If the Federal action is justified by life safety or failure of the project would pose a significant threat to human life;*
  - *If the project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices;*
  - *If the project design requires redundancy, resiliency, and/or robustness; and/or*
  - *If the project has unique construction sequencing or a reduced or overlapping design construction schedule.*

Note: If Type II IEPR is concluded to be required, the Review Plan should state that Safety Assurance will also be addressed during the Type I IEPR per Paragraph 2.c.(3) of Appendix D of EC 1165-2-214.

b. Products to Undergo Type I IEPR. *If Type I IEPR will not be conducted, 'Not-Applicable' should be indicated; otherwise this section should list the specific products to undergo Type I IEPR. At minimum, Type I IEPR should be performed for the entire decision document (including supporting documentation), which is*

typically available at the draft report stage; however, it is strongly encouraged to initiate IEPR early in the study process to reduce the chances of significant changes to the decision document occurring at the end of the study due to IEPR panel findings and recommendations. Depending on the complexity and magnitude of the study, IEPR could be performed for key interim technical products and major milestone documents (e.g., FSM and AFB or SMART Planning Alternatives Milestone or TSP Milestone documents).

c. Required Type I IEPR Panel Expertise. *If Type I IEPR will not be conducted for this study, 'Not-Applicable' should be indicated; otherwise this section should provide an estimate of the number of Type I IEPR panel members and briefly describe the types of expertise that should be represented on the panel (not just a list of disciplines). The expertise represented on the Type I IEPR panel may be similar to those on the ATR team, but may be more specifically focused and generally won't involve as many disciplines/individuals except for very large and/or complex studies. At a minimum, the panel should include the necessary expertise to assess the engineering, environmental, and economic adequacy of the decision document as required by EC 1165-2-214, Appendix D. The PDT should make the initial assessment of what expertise is needed based on the PMP and the factors affecting the scope and level of review outlined in Section 3 of the review plan and may suggest candidates. The Outside Eligible Organization (OEO) will determine the final participants on the panel. The following table provides examples of the types of disciplines that might be included on the*

d. *IEPR team and a sample description of the expertise required. Pick from the listed disciplines and/or add additional disciplines as needed and provide a short description of the expertise required for each discipline.*

IEPR Panel Members/Disciplines	Expertise Required
Economics *(an economics panel member is required; the PDT may specify one or more specific economic disciplines to participate on the panel – e.g. Navigation Economist and Agricultural Economist)*	The Economics Panel Member must *… the specific experience/credentials required for the reviewer should be added here.*
Environmental *(an environmental panel member is required; the PDT may specify one or more specific environmental disciplines to participate on the panel – e.g. NEPA Compliance Expert and Fisheries Biologist)*	
Engineering *(an engineering panel member is required; the*	*Example Description for a geotechnical engineering panel member: The geotechnical engineering reviewer*

PDT may specify one or more specific engineering disciplines to participate on the panel – e.g. Hydraulic Engineer and Geotechnical Engineer)	*must have an extensive experience in <inert specific requirements based on study objectives and proposed measures – for example, geotechnical evaluation of flood risk management structures such as static and dynamic slope stability evaluation, evaluation of the seepage through earthen embankments and underseepage through the foundation of the flood risk management structures, including dam and levee embankments, floodwalls, closure structures and other pertinent features, and in settlement evaluation of the structure>.*
Add additional IEPR panel members as needed (may include additional economic, environmental, or engineering disciplines or other disciplines such as real estate, planning, etc)	*Add the expertise required for each discipline based on the specific needs of the study…*

e. Documentation of Type I IEPR. *If Type I IEPR will not be conducted for this study,' Not-Applicable' should be indicated; otherwise the following text can be used.* The IEPR panel will be selected and managed by an Outside Eligible Organization (OEO) per EC 1165-2-214, Appendix D. Panel comments will be compiled by the OEO and should address the adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should generally include the same four key parts as described for ATR comments in Section 5.c. above. The OEO will prepare a final Review Report that will accompany the publication of the final decision document and shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions; and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

The final Review Report will be submitted by the OEO no later than 60 days following the close of the public comment period for the draft decision document. USACE shall consider all recommendations contained in the Review Report and prepare a written response for all recommendations adopted or not adopted. The final decision document will summarize the Review Report and USACE response. The Review Report and USACE response will be made available to the public, including through electronic means on the internet.

If Type I IEPR of interim products (such as individual technical products or milestone documents) will be performed, this section should also describe how the interim reviews will be documented.

f. Documentation of Type II IEPR. Based on the project as currently envisioned, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of this project at this time. A risk-informed decision concerning the timing and the appropriate level of reviews for the project implementation phase will be prepared and submitted for approval in an updated Review Plan prior to initiation of the design/implementation phase of this project.

NOTE: The final Review Report will be prepared by the OEO after review of the complete decision document package. If IEPR of interim products are performed, these reviews should be documented in interim Review Reports. The interim Review Reports will be incorporated into the final Review Report. The official USACE response to the IEPR panel recommendations will be provided to the final Review Report only. Initial responses to IEPR panel recommendations will be developed and documented by the PDT and provided to the vertical team for consideration in developing the official USACE response. The use of DrChecks to document the IEPR comments and initial District responses is not required, but its use may be negotiated with the OEO. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports 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. DQC and ATR 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.

8. COST ENGINEERING AND ATR MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering and ATR MCX, located in the Walla Walla District. The MCX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The MCX will also provide the Cost Engineering certification. The RMO is responsible for coordination with the Cost Engineering MCX.

9. MODEL CERTIFICATION AND 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, for the purposes of the EC, are defined as any models and analytical tools that planners use 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 the planning product. 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 (if required).

EC 1105-2-412 does not cover engineering models used in planning. The process the Hydrology, Hydraulics and Coastal Community of Practice (HH&C CoP) of USACE follows to validate engineering software for use in planning studies and to satisfy the requirements of the Corps' Scientific and Engineering Technology (SET) initiative is provided in Enterprise Standard (ES)-08101 Software Validation for the Hydrology, Hydraulics and Coastal Community of Practice. The 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 (if required).

Reminder: Ensure your ATR team members shown in 5.b. specifically have experience for the applicable planning and engineering models listed here. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN

a. Planning Models. The following planning models are anticipated to be used in the development of the decision document: *List the planning models (including version number as appropriate) to be used, briefly describe each model and how it will be applied ON THIS STUDY, and indicate the certification/approval status of each model. Planning models could include, but are not limited to: economic damage models (e.g., HEC-FDA, Beach FX, IMPLAN), environmental models for habitat evaluation or mitigation planning (e.g., IWRPlan, HEP HSI models, HGM), transportation or navigation models, and homegrown or spreadsheet models (e.g., excel spreadsheets, @Risk, etc; see EC 1105-2-412 for more information about what constitutes a planning model). Below are some examples of the type of information that might be included in this section (Note: Lesser known models, including local/regional models, will need a more complete description than widely used, nationally recognized models).*

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
Example: HEC-FDA 1.2.4 (Flood	*The Hydrologic Engineering Center's Flood Damage Reduction Analysis (HEC-FDA) program provides*	*Certified*

Damage Analysis)	*the capability for integrated hydrologic engineering and economic analysis for formulating and evaluating flood risk management plans using risk-based analysis methods. The program will be used to evaluate and compare the future without- and with-project plans along the Wild River near River City to aid in the selection of a recommended plan to manage flood risk.*	
Example: Study specific spreadsheet model	*Add model description and how it will be applied…*	*Add certification / approval status*
Example: Mitigation model	*Add model description and how it will be applied…*	*Add certification / approval status*

b. Engineering Models. The following engineering models are anticipated to be used in the development of the decision document: *List the engineering models (including version number as appropriate) to be used and briefly describe each model and how it will be applied ON THIS STUDY, and indicate the approval status of each model. (Note that the approval status of many engineering models can be found on the Hydraulics, Hydrology, and Coastal Engineering CoP SharePoint site at https://kme.usace.army.mil/NTCT/HHC/default.aspx under shared documents/SET software lists.) Engineering models could include, but are not limited to: hydrologic, hydraulic, geotechnical, civil, structural, cost engineering and similar models. Below is an example of the type of information that might be included in this section (Note: Lesser known models will need a more complete description than widely used, nationally recognized models).*

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
Example: HEC-RAS 4.0 (River Analysis System)	*The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions along the Wild River and its tributaries. [For a particular study the model could be used for unsteady flow analysis or both steady and unsteady flow analysis. The review plan should indicate how the model will be used for a particular study.]*	*HH&C CoP Preferred Model*

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. *This section should identify the estimated schedule for ATR including any milestone reviews (e.g., IPRs, FSM, AFB, Draft Report, Final Reports) and any interim technical product reviews or additional MSC required reviews. At minimum, estimated dates for the next milestone review must be provided. This section should also provide an estimated cost for the ATR effort. Coordination with the primary PCX, the Cost Engineering MCX, and/or the RMC may be needed to complete this section. The ATR schedule and budget should include participation of the ATR Lead in milestone conferences and the Civil Works Review Board (CWRB) meeting (if required for the study) to address the ATR process and any significant and/or unresolved ATR concerns.*

NOTE: The schedule and cost for ATR will vary based on the study complexity and the documents being reviewed. In general, major milestone reviews (e.g. FSM, AFB) should be scheduled for no less than 6 weeks (2 weeks for the ATR team to provide comments, 2 weeks for the PDT to coordinate and provide responses, and 2 weeks for back check and close-out of the ATR) and an estimated cost of from $15k (e.g., small CAP project) to $60k or more (e.g., complex GI project) each, depending on the number of ATR team members engaged. Draft and/or final report reviews may also require 6 weeks and have similar costs if, since the most recent ATR, there have been significant changes to the decision document. If the changes are minor, the draft and/or final report reviews may be significantly shorter and less expensive (since only the changes need to be reviewed). Single discipline interim product reviews (for example, review of a hydrology report) will generally require less time and cost. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

b. Type I IEPR Schedule and Cost. *If Type I IEPR will not be conducted for this study, 'Not-Applicable' should be indicated; otherwise this section should identify the estimated schedule for all IEPR work including review of the entire decision document package (usually at the draft report stage) and any interim reviews. At minimum, estimated dates for the next milestone review must be provided. This section should also provide an estimated cost for the IEPR effort. Coordination with the primary PCX or the RMC may be needed to complete this section. For decision documents presented to the CWRB, IEPR comments and responses will be discussed at the CWRB meeting. The IEPR schedule and budget should include participation of an IEPR panel member and/or OEO representative at the CWRB.*

NOTE: The cost and schedule for Type I IEPR will vary based on the study complexity, the number of panel members, and the documents being reviewed. In general, the IEPR panel review of a draft decision document should be scheduled for no less than 15 weeks from the OEO contract Notice to Proceed to the submittal of the final Review Report by the OEO (this does not include the preparation of the official USACE response to the IEPR recommendations, which can vary greatly). The timeline for IEPR of the draft decision document could be shortened if IEPR of interim products are conducted (since only the additions/changes from the previous IEPRs will need to be reviewed by the panel). The cost to contract the IEPR panel could range from about $100k to $500k and is 100% Federal (but must be budgeted as part of the study cost). The cost for the RMO to facilitate the IEPR and for the PDT to respond to the IEPR recommendations will vary and is cost shared. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

c. Model Certification/Approval Schedule and Cost. *This section should identify the estimated schedule and cost for any necessary certification or approval of planning models that are anticipated to be used in the development of the decision document described in this review plan. If all the models anticipated to be used are already certified or approved for use, this should be stated. Coordination with the appropriate PCX or the RMC for the model(s) in question may be needed to complete this section.*

NOTE: The schedule and cost to obtain model certification or approval varies greatly depending on the complexity of the model and the quality/quantity of supporting documentation. The schedule for certification / approval could range from 4 weeks for a very simple model to 6 months or more for a complicated model and the cost could range from $10k to over $200k. In general, the model certification / approval process should be scheduled to begin as early in the study process as possible, but no later than the FSM milestone (or equivalent); review of the model(s) should be scheduled for completion no later than the AFB milestone; and certification or approval of the model(s) no later than completion of the final decision document (and prior to the CWRB, if required). DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

11. PUBLIC PARTICIPATION

This section should indicate how and when there will be opportunities for public comment on the development of the decision document. It should indicate when significant and relevant public comments will be provided to reviewers before they conduct their review. It should also indicate whether the public, including scientific or professional societies will be asked to nominate potential peer reviewers. Finally, it should indicate how the final decision document, associated review reports, and USACE responses to IEPR comments (if applicable) will be made available to the public.

12. REVIEW PLAN APPROVAL AND UPDATES

The *South Atlantic Division* Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members, as applicable) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Home District's webpage. The latest Review Plan will also be provided to the RMO and home MSC.

NOTE: It is critical that the Review Plan is kept up to date and the latest version (complete with the team rosters) be provided to the RMO and MSC. In particular, the schedule for peer review and model certification / approval must be kept updated so that the RMO can provide timely delivery of these services. The PDT should contact the RMO about 8 weeks in advance of any scheduled peer review or model certification effort to coordinate the effort. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

13. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- *Add title and phone number for the point of contact(s) at the home District*
- *Add title and phone number for the point of contact(s) at the home MSC*
- *Add title and phone number for the point of contact(s) at the Review Management Organization*

DO NOT USE NAMES HERE- TITLE AND PHONE NUMBER ONLY

ATTACHMENT 1: TEAM ROSTERS

NOTE: Attachment 1 should include rosters and contact information for the PDT, ATR team, vertical team (including RMO, MSC, and RIT), OEO point(s) of contact (if applicable). The credentials and years of experience for the ATR team must also be included when available. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN. REMEMBER TO REMOVE INDIVIDUAL NAMES BEFORE POSTING THE REVIEW PLAN TO THE DISTRICT WEBSITE.

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the *<type of product>* for *<project name and location>*. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

SIGNATURE _____ _____

Name Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Name Date
Project Manager
Office Symbol

SIGNATURE _____ _____

Name Date
Architect Engineer Project Manager[1]
Company, location

SIGNATURE _____ _____

Name Date
Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE _____ _____

Name Date
Chief, Engineering Division
Office Symbol

SIGNATURE _____ _____

Name Date
Chief, Planning Division
Office Symbol

[1] Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

NOTE: Revisions to the Review Plan since it was last approved by the MSC Commander should be documented in Attachment 3. Significant changes (such as a change in the level or scope of review) require approval by the MSC Commander following the process used for initially approving the plan. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

NOTE: Define the acronyms/abbreviations used in the Review Plan and delete those not used in the Review Plan. Acronyms/abbreviations used in this template or that might typically be used in a review plan (to be modified as necessary for specific review plans) are provided in the table below. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and Maintenance
DPR	Detailed Project Report	OMB	Office of Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
EA	Environmental Assessment	OEO	Outside Eligible Organization
EC	Engineer Circular	OSE	Other Social Effects
EIS	Environmental Impact Statement	PCX	Planning Center of Expertise
EO	Executive Order	PDT	Project Delivery Team
ER	Ecosystem Restoration	PAC	Post Authorization Change
FDR	Flood Damage Reduction	PMP	Project Management Plan
FEMA	Federal Emergency Management Agency	PL	Public Law
FRM	Flood Risk Management	QMP	Quality Management Plan
FSM	Feasibility Scoping Meeting	QA	Quality Assurance
GRR	General Reevaluation Report	QC	Quality Control
Home District/MSC	The District or Major Subordinate Command responsible for the preparation of the decision document	RED	Regional Economic Development
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMC	Risk Management Center
IEPR	Independent External Peer Review	RMO	Review Management Organization
ITR	Independent Technical Review	RTS	Regional Technical Specialist

Term	**Definition**	**Term**	**Definition**
LRR	Limited Reevaluation Report	SAR	Safety Assurance Review
MCX	Mandatory Center of Expertise	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act

South Atlantic Division

CAP Regional Programmatic Review Plan for Decision Documents

Enclosure B

Risk Based IEPR Decision Analysis/Regional CAP Review Plan Applicability Determination

NOTE: A signed copy of this completed Decision Analysis/Applicability Determination will be placed in the Project File

Document Name:_____

The Project Development Team has reviewed Section 5.2.1. of the SAD CAP Regional Programmatic Review Plan for Decision Documents.

If applicable, mark with an x, sign, and date. If not applicable, complete the analysis.

OPTION 1

___ This is not a Section 103 or 205 CAP Decision Document and none of the Type I IEPR triggers in Section 5.2.1 apply. Type II IEPR Safety Assurance Review has been determined by the District Chief of Engineering, as the Engineer-In-Responsible-Charge, not to be needed.

_____ Date:_____
[Insert Name]
Chief, Planning Division

_____ Date:_____
[Insert Name]
Chief, Engineering Division

Based on the above determination, the Regional CAP Decision Document Review Plan is applicable to this decision document.

OPTION 2

____This is a Section 103/205 CAP Decision Document/Section ___ CAP authority with Type I IEPR triggers in Section 5.2.1 that apply. (*circle applicable description*)

The risk-informed decision analysis is as follows:

- Does the project involve a significant threat to human life/safety assurance?

Response:

- Is the total project cost less than $200 million?

Response:

- Is there a request by the Governor of an affected state for a peer review by independent experts?

Response:

- Does the project require an Environmental Impact Statement (EIS)?

Response:

- Is the project/study likely to involve significant public dispute as to the size, nature, or effects of the project?

Response:

- Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project?

Response:

- Is the information in the decision document or anticipated project design likely to be based on (a)novel methods, (b)involve the use of innovative materials or techniques, present complex challenges for interpretation, (c)contain precedent-setting methods or models, or (d)present conclusions that are likely to change prevailing practices? (*answer each criterion separately)*

Response:

- Is the project design anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule?

Response:

- Are there other circumstances where the Chief of Engineers or Director of Civil Works has determined Type I IEPR is warranted? (*if unsure, validate with SAD Engineering prior to responding)*

Response:

___ Based on upon the information provided above, the decision document is so limited in scope or impact that it would not significantly benefit from a Type I IEPR. This document will be sent to SAD for its concurrence with this determination. Upon SAD concurrence, the CAP Regional Programmatic Decision Document Review Plan is applicable to this decision document.

___ Based upon the information provided above, the decision document should undergo a Type I IEPR. An individual review plan will be created for this decision document.

_____ Date:_____
[Insert Name]
Chief, Planning Division

_____ Date:_____
[Insert Name]
Chief, Engineering Division