

**REVIEW PLAN**

**Louisiana Coastal Area  
Beneficial Use of Dredged Material Program**

**Mississippi River Central Wetlands Project  
St. Bernard Parish, Louisiana**

New Orleans District  
September 2018

**MSC Approval Date:**  
**Last Revision Date:**

ENDORSED  
BY:

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Major General, U.S. Army  
Commander

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DATE



**US Army Corps  
of Engineers** ®

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## 1. PURPOSE AND REQUIREMENTS

**a. Purpose.** This Review Plan describes the scope and level of peer review for the Louisiana Coastal Area (LCA), Beneficial Use of Dredged Material Program (BUDMAT), Mississippi River Central Wetlands Project (“Project”) proposed to be constructed in St. Bernard Parish, Louisiana. The Review Plan is part of the Project Management Plan (PMP) with anticipated review products to include, but not be limited to, the Mississippi Valley Division (MVD) Decision Milestone Briefing Submittal Package; Draft Design And Implementation Report (DIR) and Environmental Assessment (EA), along with supporting technical documents if significant comments are received during the public comment period; and Plans and Specifications (P&S), along with documents that support the bid package, to include the Engineering Consideration and Instructions.

**b. LCA BUDMAT Program.** The 2004 LCA Ecosystem Restoration Study Report and Programmatic Environmental Impact Statement (“2004 LCA Study”) was developed to identify cost effective, near-term restoration features to reverse the degradation trend of the coastal ecosystem of Louisiana. The Near-Term Plan that resulted from the 2004 LCA Study focused on restoration strategies that would reintroduce historical flows of river water, nutrients, and sediments; restore hydrology to minimize saltwater intrusion and maintain structural integrity of coastal ecosystems. The Report of the Chief of Engineers dated 31 January 2005 (“2005 Chief’s Report”) recommended implementation of the LCA BUDMAT Program through a one-step planning and design procedure modeled upon the process for projects implemented under Section 204 of the Water Resources Development Act (WRDA) of 1992 (PL 102-580) pursuant to the Continuing Authorities Program (CAP 204) for the protection, restoration, and creation of aquatic and ecologically related habitats in connection with O&M dredging of an authorized navigation project, using procedures appropriate for the scope and complexity of the project to allow for the appropriate level of planning and design for the project.

Title VII of the WRDA of 2007 (“WRDA 2007”) (PL 110-114) authorized an ecosystem restoration program for the Louisiana Coastal Area substantially in accordance with the Near-Term Plan identified in the 2005 Chief’s Report. The 2005 Chief’s Report (page 4) describes the beneficial use of dredged material program as follows:

“6. Beneficial Use of Dredged Material Program. The reporting officers recommend a program to place dredged material to build and nourish vital coastal wetlands. At October 2004 price levels, the estimated cost of the Beneficial Use of Dredged Material program is \$100,000,000.”

Title VII, Section 7006(d) of WRDA 2007 provides as follows:

### **SEC. 7006. CONSTRUCTION.**

(d) BENEFICIAL USE OF DREDGED MATERIAL.—

(1) IN GENERAL.—The Secretary, substantially in accordance with the restoration plan, shall implement in the coastal Louisiana ecosystem a program for the

beneficial use of material dredged from federally maintained waterways at a total cost of \$100,000,000.

The LCA restoration plan referenced in Title VII, Section 7006(d) (1) above was also authorized by WRDA 2007 in Title VII, Section 7003 which contains the following language:

**SEC. 7003. LOUISIANA COASTAL AREA.**

(a) IN GENERAL.—The Secretary may carry out a program for ecosystem restoration, Louisiana Coastal Area, Louisiana, substantially in accordance with the report of the Chief of Engineers, dated January 31, 2005.

CECW-P Memorandum dated 19 December 2008, SUBJECT: Implementation Guidance for Section 7006(d) of the Water Resources Development Act of 2007 –Louisiana Coastal Area – Construction, recognized the recommendation of the 2005 Chief’s Report that the LCA BUDMAT Program be cost shared in accordance with Section 204 of the Water Resources Development Act of 1992. Section 204 of the Water Resources Development Act of 1992 (PL 102-580), was later modified by Section 2037 of WRDA 2007, requiring all work under the LCA Program be cost shared at 65% Federal and 35% non-Federal. In 2014, the cost share requirements of Section 2037 of WRDA 2007, were amended by Section 1030(d) of the Water Resources Reform and Development Act (WRRDA) of 2014 to provide that the WRDA 2007 cost sharing amendment does not apply to any beneficial use of dredged material project authorized in WRDA 2007 if a report of the Chief of Engineers for the project was completed prior to the date of enactment of WRDA 2007. For those projects (specifically including the LCA BUDMAT, LA, authorized by Section 7006(d) of WRDA 2007), the cost sharing for the beneficial use of dredged material is now 75% Federal and 25% non-Federal. (See Implementation Guidance for Section 1030(d) of the WRRDA dated 3 December 2014.)

The Final Programmatic Study Report and Programmatic Environmental Impact Statement (2010 Report) and a Record of Decision, was approved by the Assistant Secretary of the Army (Civil Works) (ASA (CW)) on 13 August 2010. By Memorandum of the same date (13 August 2010), the ASA (CW) also delegated approval authority to the MVD Commander, subject to a per-project limit on the federal investment for the delegation to \$15 million. The 2010 Report recommended an implementation plan for the LCA Program that beneficially uses material dredged from federally maintained waterways. The authorized LCA Plan includes \$100 million in programmatic authority to allow for the extra cost needed for beneficial use of dredged material over a 10-year period. Funds from the BUDMAT Program are used for disposal activities associated with separate, cost-shared, individual ecosystem restoration beneficial use projects that are above and beyond the disposal activities that are covered under the USACE O&M maintenance dredging Federal standard. The Federal standard for dredged material disposal is the least costly alternative, consistent with sound engineering and scientific practices and meeting applicable Federal environmental statutes. Of the \$100 million recommended for the BUDMAT Program, the 2010 Report provided that approximately

15 percent (i.e., \$15 million) would be used for planning, engineering, and design activities, and real estate acquisition for beneficial use projects implemented under the BUDMAT Program, and the remaining \$85 million would be used for placement of dredged material within the beneficial use disposal sites.

Simplified evaluation procedures are allowed for low risk/low cost projects and when the consequences of failure are minimal and do not pose a threat to human life or safety. Alternative plans for BUDMAT Projects are developed with the level of detail necessary to select a justified, acceptable, and implementable plan that is consistent with Federal law and policy and, to the extent that the project authorization, law and policy permit, consistent with the goals of the non-Federal Sponsor (NFS). Benefit and cost, risk and uncertainty, cost effectiveness, and incremental cost analyses are undertaken using procedures that are most appropriate for the scope and complexity of this Project. The 2004 LCA Study and the 2010 Report identified broadly recognized specific needs within the Louisiana coastal area. In this Project Area, the specific needs are sustaining the complex of degraded marsh habitat in order to restore or preserve critical geomorphic features, prevent future land loss, and reduce impacts to remaining coastal habitat and critical infrastructure.

**c. Applicability.** This Review Plan is based on the MVD Model Review Plan for CAP Section 14, 107, 111, 204, 206, 208, or 1135 Projects or Programs directed by guidance to follow CAP processes, which includes the LCA BUDMAT Program, and which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined by the mandatory Type I IEPR triggers contained in EC 1165-2-217, Civil Works Review Policy.

**d. References.**

- (1) Engineer Circular (EC) 1165-2-217, Civil Works Review Policy, 20 February 2018
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (3) Engineer Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) Louisiana Coastal Area (LCA), Louisiana Ecosystem Restoration Beneficial Use of Dredged Material (BUDMAT) Program, Programmatic Feasibility Study, Peer Review Plan, March 2008
- (6) ER 415-1-11, Engineering and Construction, BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL AND SUSTAINABILITY (BCOES) REVIEWS, January 2013;
- (7) ER 1130-2-50 Project Operations – Navigation and Dredging Operations and Maintenance Policies, December 1996
- (8) ER 1110-2-8162, Incorporating Sea Level Change In Civil Works Programs, 13 December 2013

- (9) ETL 1100-2-1, Procedures to Evaluate Sea Level Changes: Impacts, Responses, Adaptation, 30 June 2014

**e. Requirements.** This Review Plan was developed under EC 1165-2-217, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products. It provides 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 (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these reviews, decision documents are subject to cost engineering review and certification (per EC 1165-2-217) and planning model certification/approval (per EC 1105-2-412).

## 2. REVIEW MANAGEMENT ORGANIZATION COORDINATION

The Review Management Organization (RMO) is responsible for managing the overall peer review effort described in this Plan. The RMO for this peer review effort is directed by guidance to be the same as the RMO for Section 204 projects. The RMO for this Plan is MVD. The RMO will endorse this RP, and the MVD Commander will approve the Plan. A copy of the approved RP will be provided to the Risk Management Center (RMC) Senior Reviewer and to the Ecosystem Planning Center of Expertise (ECO-PCX) to keep both the RMC and the ECO-PCX apprised of requirements and review schedules. The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on review teams to assess the adequacy of cost estimates, construction schedules, and contingencies.

## 3. PROJECT INFORMATION

**a. Decision and Implementation Documents.** A legally sufficient and policy compliant Final Design and Implementation Report (DIR) and a separate Environmental Assessment (EA) is being prepared for transmittal by the New Orleans District (MVN) to MVD for approval. Once approved, the Final DIR and EA will serve as the decision document for the Project Partnership Agreement. (See ER 1105-2-100, Appendix F, Amendment #2). The approval level of the Final DIR and EA is MVD. The Final DIR and EA does not contain influential scientific information; is not a highly influential scientific assessment and is not highly controversial. No public dispute is expected. In addition, the information in the Final DIR and EA is not be based on novel methods. MVN Engineering Division has made the decision that IEPR on implementation documents for dredging projects is not required.

**b. Project Title and Description.** The name of the Project is the "Louisiana Coastal Area (LCA), Beneficial Use of Dredged Material Program (BUDMAT), Mississippi River Central Wetlands Project". The Project is proposed to be constructed in St. Bernard Parish, Louisiana. The dredged material to be used for the Project will be sourced from the routine operation and maintenance of Mississippi River, Baton Rouge to the Gulf of

Mexico, Louisiana which is an authorized federal navigation project. Dredged material for this Project will come from the routine maintenance dredging of the New Orleans Port Crossings segments. The NFS for this Project is the St. Bernard Parish Government (SBP).

**c. Factors Affecting the Scope and Level of Review.** Due to the location of the Project, risk of significant threat to human life or safety, or both, is not paramount. An Environmental Impact Statement (EIS) is not anticipated, as the Project is not likely to have significant economic, environmental, or social effects to the nation or to have more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources. The Project is not likely to have substantial adverse impacts on fish and wildlife species or their habitat and is not likely to have more than negligible adverse impacts on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation. An EA is expected to be sufficient for this Project. No significant interagency interests are anticipated. The decision and implementation documents are not likely to contain influential scientific information or be a highly influential scientific assessment. It is not likely to be highly controversial; no public dispute is expected. Information in the documents will not be based on novel methods.

**d. In-Kind Contributions.** Products and analyses provided by the NFS as in-kind services are subject to DQC and ATR, similar to any products developed by USACE. The cost estimates identified for each in-kind activity below are estimates reflected in these documents. Any scope or cost changes, or both, identified by the Project Delivery Team (PDT) will be documented according to the Change Management Plan for the Project. Significant changes to the PMP which require an amendment to the Model Project Partnership Agreement may also require the submittal and approval of an amended Integral Determination Report if the revisions to the PMP involve significant changes to the proposed in-kind contributions performed or provided by the NFS.

#### 4. DISTRICT QUALITY CONTROL

All decision and implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC prior to ATR. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the approved PMP. Regional Planning and Environment Division South (RPEDS) shall manage DQC of decision documents in accordance with the MVD and New Orleans District (MVN) Quality Management Plan. MVN Engineering Division shall manage DQC of the implementation document. Non-PDT technical level personnel and /or senior leaders not directly involved in the preparation of the decision document for the Project, will be assigned to carry out DQC. DQC has been performed on the Draft and Final DIR and EA and supporting information (including but not limited to the engineering appendix, environmental assessment, real estate plan, cost estimates, and plan formulation methodology). DQC will also be



conducted on the P&S. Each of these products will undergo review by senior level staff within the appropriate technical division. DQC will be documented using DrChecks.

**a. Documentation of DQC.** DrChecks review software will be used to document all DQC 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. Upon completion of the DQC, a DQC certification memorandum will be signed by the lead DQC reviewer and the Project Manager, to denote completion and resolution of all comments.

**b. Products to Undergo DQC.** DQC will be conducted on the Draft and Final DIR and EA and supporting information (including but not limited to the engineering appendix, environmental assessment, real estate plan, cost estimates, and plan formulation methodology). DQC will also be conducted on the P&S. Each of these products will undergo review by senior level staff within the appropriate technical division.

**c. Required DQC Expertise.** Non-Project Delivery Team (PDT) technical level personnel or senior leaders, or both, not directly involved in the preparation of the Draft and Final DIR and EA for this Project, will be assigned to carry out DQC. DQC reviewers should not be part of the PDT. MVN Engineering Division shall manage DQC of the implementation document (P&S).

**DQC Review for Decision Documents**

<b>DQC Team Members/Disciplines</b>	<b>Expertise Required</b>
Plan Formulation (1 Team Member)	The Planning reviewer should be a senior water resources planner with experience in ecosystem restoration projects development and review.
Economics (1 Team Member)	The Economic reviewer should be a senior economist with experience in ecosystem restoration projects, and application of the IWR model
Environmental & Cultural Resources (1 Team Member)	Team members should be familiar with the (National Environmental Policy Act (NEPA) and (Hazardous, Toxic, and Radioactive Waste (HTRW) process for similar studies and projects. Experience should include knowledge of small flood risk management studies, HTRW, Cultural Resources, and Ecosystem Restoration. The team member should be a subject matter expert on application and documentation of the NEPA process.
Engineering (1 Team Member)	The team members should be familiar with Engineering practices and principles from the disciplines of Civil, Geotechnical, Hydrology and Hydraulics, Engineering and other key engineering disciplines related to preparation of the decision document
Cost Engineering (1 Team Member)	Cost DX Pre-Certified Professional with experience preparing cost estimates for small CAP Section 204 beneficial use project. Team member should be familiar with cost estimating for similar projects using MCACES or MII.
Real Estate (1 Team Member)	Team member should be experienced in Federal civil works real estate laws, policies and guidance as they pertain to Section 204 Projects. RE ATR reviewed will be a senior RE professional selected from the Nationally approved RE ATR list.

**DQC Review for Implementation Documents**

<b>DQC Team Members/Disciplines</b>	<b>Expertise Required</b>
Geotechnical Engineering	Responsible for reviewing the geotechnical design, existing soil conditions and ensure that the Project meets USACE Standards. The reviewer will have experience in dredging and ecosystem restoration projects.
Civil Engineering	Responsible for reviewing site features and utilities to ensure minimal impacts to the flood protection system. The reviewer will have experience in dredging and ecosystem restoration projects.
Cost Engineering	Cost DX Pre-Certified Professional with experience preparing cost estimates for CAP Section 204 beneficial use project. Team member should be familiar with cost estimating for similar projects using MCACES or MII.

**5. AGENCY TECHNICAL REVIEW**

One ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.), however additional ATRs may be performed if deemed warranted. 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 will be performed concurrent with public review. 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 assigned by the appropriate RMO and comprised of senior USACE personnel who have been vetted and certified by their respective CoP for their specific areas of expertise (EC 1165-2-217, 9. h. (1) ATR Team). For LCA BUDMAT Program projects, the RMO is MVD. An exception has been made that allows the ATR team lead to be from inside the MSC, but must be independent of the LCA BUDMAT Program. A site visit will not be needed.

**a. Products to Undergo ATR.** The Draft and Final DIR and EA and additional decision support documentation (i.e., economic analysis, engineering, analysis, etc.) will undergo ATR.

**b. Required ATR Team Expertise.**

**ATR for Decision Documents**

<b>ATR Team Members/Disciplines</b>	<b>Expertise Required</b>
ATR Lead	The ATR lead should be a senior professional with experience in preparing Continuing Authorities Program (CAP) Section 204 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Plan Formulation	The Planning reviewer should be a senior water resources planner with experience in CAP Section 204 project development and review.

Economics	The Economic reviewer should be a senior economist with experience in CAP Section 204 project development and review.
Environmental & Cultural Resources	Team members should be familiar with the NEPA and HTRW process for similar studies and projects. Experience should include knowledge of small flood risk management studies, HTRW, Cultural Resources, and Ecosystem Restoration. The team member should be a subject matter expert on application and documentation of the NEPA process.
Civil Engineering	The Civil Engineering reviewer should be a senior engineer with experience in CAP Section 204 project development and review.
Cost Engineering	Cost DX Pre-Certified Professional with experience preparing cost estimates for CAP Section 204 beneficial use project. Team member should be familiar with cost estimating for similar projects using MCACES or MII.
Real Estate	Team member should be experienced in Federal civil works real estate laws, policies and guidance as they pertain to CAP Section 204 Projects. Real Estate ATR reviewer will be a senior Real Estate professional selected from the nationally approved Real Estate ATR list.

**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 reviewer’s 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 addressing incomplete or unclear information, comments may seek clarification 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 MVN, 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 EC 1165-2-217, 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 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 Draft and Final DIR and EA. A sample Statement of Technical Review is included in Attachment 2.

## **6. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL AND SUSTAINABILITY (BCOES) REVIEWS**

BCOES reviews will be conducted on all implementation documents to ensure accomplishment of the following aspects of the report.

a. *Biddability* is defined as the clarity of the acquisition documents, the soundness of the government's evaluation and selection criteria for negotiated acquisitions, and the ease of bidders or proposers to understand the government's requirements, allowing the submission of a competitive bid or proposal that is responsive to the government's requirements.

b. *Constructability* is defined as the ease of constructing a specified or designed project according to the government's requirements, including the proposed construction duration, and the ease of understanding and administering the contract documents during their execution.

c. *Operability* is defined as the ability to efficiently operate and maintain a facility or facilities over their life cycle when the facility or facilities are built according to the project's P&S.

d. *Environmental* is defined as the ability to best achieve stewardship of air, water, land, animals, plants, and other natural resources when constructing and operating the project, and complying with the Environmental Impact Statement or Assessment or other environmental- related project requirements. The USACE Environmental Operating Principles (EOPs) in ER 200-1-5 provide direction on achieving synergy between the environment and the execution of projects. The Environmental part of a BCOES review shall address all EOPs including compliance with all applicable local, state, and Federal environmental requirements.

e. *Sustainability* is defined as using methods, systems, and materials that optimize incorporation of a site's natural land, water, and energy resources as integral aspects of the development and minimize or avoid harm to the air, water, land, energy, human ecology and Nonrenewable resources on- and off-site of the project.

MVN Engineering Division shall manage DQC of implementation documents. The BCOES review will be performed in accordance with ER 415-1-11. The P&S and Engineering Considerations and Instructions (ECIs) will be included in the BCOES. All comments and comment resolutions will be performed and documented in DrChecks as per ER 1110-1-8159. The BCOES review will occur at the 95% P&S submittal level after all ATR comments are resolved and the ATR is completed and certified.

**BCOES**

<b>BCOES Team Members/Disciplines</b>	<b>Expertise Required</b>
Environmental & Cultural Resources	Team members should be familiar with the NEPA and HTRW process for similar studies and projects. Experience should include knowledge of small flood risk management studies, HTRW, Cultural Resources, and Ecosystem Restoration. The team member should be a subject matter expert on application and documentation of the NEPA process.
Construction	The Construction Division team member should be a senior level civil engineer with experience in the operations & maintenance of navigation projects and construction of Ecosystem Restoration Projects. The team member will hold a degree in Civil Engineering.
Operations	The Operations Division team member should be a senior level civil engineer with experience in the operations & maintenance of navigation projects. The team member will hold a degree in Civil Engineering.
Real Estate	The Real Estate team member should be a senior-level realty specialist with experience in identifying right-of-way requirements for project purposes, estates, process for obtaining approval of non-standard estate approval, validating real estate requirements for project purposes, basic requirements for management outgrant and consent actions, experience in reviewing P&S, and critical thinking skills.

Contracting	The Contracting Office team member shall be a senior level reviewer with experience in advertising, awarding, and administering contracts for dredging of navigation canals.
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**6. INDEPENDENT EXTERNAL PEER REVIEW**

IEPR may be required for decision documents under certain circumstances. 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 1165-2-217, 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. 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 1165-2-217.
- 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.

**Decision on IEPR.** Based on the requirements outlined in EC-1165-2-217 a Type I IEPR is not required for this Project. The Project does not pose a significant threat to human life. The estimated cost for construction is less than \$200 million (Implementation Guidance for Section 1044 of the WRRDA of 2014 - Independent Peer Review, dated 29 June 2016). The Project is not likely to have significant economic, environmental, or social effects to the nation or to have more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources. The Project is not likely to have substantial

adverse impacts on fish and wildlife species or their habitat and is not likely to have more than negligible adverse impacts on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation. An EA is expected to be sufficient for this Project. No significant interagency interests are anticipated. The DIR is not likely to contain influential scientific information or be a highly influential scientific assessment. It is not likely to be highly controversial; no public dispute is expected. Information in the Final DIR and EA will not be based on novel methods.

The MVN Chief of Engineering has assessed the Project to determine whether there is a need for a Type II IEPR. Based on the criteria as outlined in EX-1165-2-217, Appendix E, the Chief of Engineering determined that a Type II IEPR is not required. Documentation of this risk-informed decision is set forth in the Memorandum of the MVN Chief of Engineering dated January 2018. The Project consists of using dredged material sourced from the routine operation and maintenance dredging of an authorized federal navigation project and placement of the material in identified sites for ecosystem restoration purposes that are consistent with the goals and objectives of the 2004 LCA Study and the 2010 Report. The implementation of the Project will not pose a significant threat to human life. The procedures used for the dredging and placement of the material do not involve the use of innovative materials or techniques. The Project does not require redundancy, resiliency, or robustness.

## **7. POLICY AND LEGAL COMPLIANCE REVIEW**

All decision documents will be reviewed for 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 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 REVIEW AND CERTIFICATION**

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

## **9. MODEL CERTIFICATION AND APPROVAL**

Approval of planning models under EC 1105-2-412 is not required for CAP projects and based on the LCA BUDMAT Program authority, approval of the planning models are not

required for this Project. (See 2005 Chief’s Report which states that projects implemented under the LCA BUDMAT Program are to follow the planning and implementation guidance established for Section 204 of the Water Resources Development Act of 1992, Continuing Authorities Program beneficial use projects.) The MVD Commander remains responsible for assuring the quality of the analyses used in these projects. ATR will be used to ensure that models and analyses are compliant with USACE policy, theoretically sound, computationally accurate, transparent, described to address any limitations of the model or its use, and documented in study reports.

EC 1105-2-412 does not cover engineering models used in planning. Responsible use of well-known and proven USACE-developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever 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 (if required).

**a. Planning Models.** The following planning models are anticipated to be used in the development of the Draft and Final DIR and EA:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certified for Use?
Wetland Value Assessment (WVA) Methodology – Coastal Marsh Community Model	A WVA is a quantitative, habitat-based assessment developed to estimate anticipated environmental impacts and benefits to wetlands. The WVA is a modification of the U.S. Fish and Wildlife Service’s (USFWS) Habitat Evaluation Procedure (HEP) which is widely used by the USFWS and other agencies to evaluate the impacts of development projects on fish and wildlife resources. While the HEP utilizes species-specific models, the WVA utilizes a community-level approach. WVA methodology relies on the use of the Coastal Marsh Community Models, which were developed by the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Environmental Working Group to determine the suitability of marsh and open water habitats in the Louisiana coastal zone. Three community-level, mathematical models were developed specifically for each marsh type in coastal Louisiana. The model will be used to evaluate data to determine baseline habitat conditions and predict habitat conditions for future with-project and future without-project scenarios.	Yes: Re-Certified – 07 Nov ‘17
IWR Planning Suite, Cost-Effectiveness/Incremental Cost Analysis Software, (CE/ICA)	The Cost Effectiveness/Incremental Cost Analysis Software (CE/ICA) is used to evaluate alternative plans, determine which plans are cost effective, and to identify a National Ecosystem Restoration (NER) Plan. The model will be used	Yes



	to evaluate the project-specific alternatives developed as part of this Beneficial Use project.	
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**b. Engineering Models.** There are no Engineering Models planned for use with this effort.

**10. REVIEW SCHEDULES AND COSTS**

**a. DQC and ATR Schedule and Cost**

Task	Start Date	Completion Date	Cost
Draft DIR and EA DQC	11 May 19	1 Jun 19	\$11,000
EA Public Review	21 Jun 19	4 Aug 19	\$10,000
ATR Review	22 Jun 19	8 Jul 19	\$10,000
MSC Review	20 Aug 19	23 Aug 19	\$5,000
P&S DQC Review *			
P&S BCOES Review *			

*Note: All dates and costs are tentative or contingent, or both, upon funding. This section will be updated as necessary. \*Implementation review dates will be added once the dates are identified.*

**11. PUBLIC PARTICIPATION**

**a. Peer Review Plan** To ensure that the peer review approach is responsive to the wide array of stakeholders and customers, both within and outside the Federal Government, this Plan shall be published on MVN's public Internet site following approval by MVD. In all posted documents, the lists of the names of USACE reviewers shall not be displayed. PCX, MSC and HQ postings will link to MVN's website. MVN shall establish a mechanism on the MVN website for allowing the public to comment on the adequacy of this Plan, and MVN shall consider all public comments received on the Plan. There is no formal comment period or set timeframe for the opportunity for public comment. If and when comments are received, the PDT will review and determine whether revisions to the Plan are necessary.

**b. Environmental Compliance** State and federal resource agencies may be invited to participate in the study covered by this Review Plan as partner agencies or as technical members of the PDT, as appropriate. Preparation of the EA and draft Finding of No Significant Impact (FONSI) will be coordinated with appropriate Congressional, Federal, state, and local interests, as well as other interested parties. The interested parties letters and Notice of Availability for the Draft DIR and EA and draft FONSI will be mailed out for a 30 day comment period. Final copies of the DIR and EA and FONSI will be sent via email, if requested. The Review Plan will be posted on the District's public website at <https://www.usace.army.mil/Missions/Civil-Works/Project-Planning/Review-Plans/>. Decisions on requests to hold public meetings or hearings will be made on a case-by-case basis.

## **12. REVIEW PLAN APPROVAL AND UPDATES**

The MSC is responsible for approving this Review Plan. The MSC approval reflects vertical team input (MVN, MVD, MSC, and RMO) as to the appropriate scope and level of review for the decision document. The Review Plan is a living document and must be kept up-to-date, in coordination with the MSC and RMO, to reflect the proper scale and scope of the anticipated reviews. The PDT will update the RP to reflect minor changes as they occur without the need for re-approval. Re-approval of RPs by the MSC will be required when there are significant changes, such as in the level of review (i.e., if Type I or Type II IEPR is added to or deleted from the RP). Other situations requiring RMO re-endorsement and MSC re-approval should be very limited but could include significant changes in study/project scope (e.g., adding or subtracting a purpose, etc.) and MVN is responsible for keeping this Plan up to date. Minor changes to the Review Plan since the last MSC approval shall be documented in Attachment 3. Significant changes to the Review Plan (such as scope or level of review changes, or both) shall be re-approved by the MSC following the process used to initially approve this Plan. The latest version of the Review Plan, along with the Approval Memorandum(s), shall be posted on the MVN webpage. The latest version of this Review Plan shall also be provided to the RMO and the MSC.

## **13. REVIEW PLAN POINTS OF CONTACT**

Public questions or comments, or both, on this Plan can be directed to the following points of contact:

- Shawn Heingarten, Plan Formulator, 504-862-1454, MVN
- Antoine Jackson, Project Manager, 504-862-1797 MVN
- Matthew Mallard, CAP Program Manager, 601-634-5869, MVD

**ATTACHMENT 1: TEAM ROSTERS**

ATTACHMENT 1a: PROJECT DELIVERY TEAM

LCA BUDMAT Mississippi River Central Wetlands St. Bernard Parish, Louisiana PDT Members (updated as necessary)			
Name	Functional Area/Discipline	Phone	Email
Darrel Broussard	Sr. Program Manager	(504) 862-2702	Darrel.M.Broussard@usace.army.mil
Antoine Jackson	Project Manager	(504) 862-2446	Antoine.Jackson@usace.army.mil
Shawn Heingarten	Plan Formulator	(504) 862-1454	Shawn.Heingarten@usace.army.mil
Walter Teckemeyer	Project Engineer FTL	(504) 862-2611	Walter.F.Teckemeyer@usace.army.mil
Whitney Hickerson	Hydraulic Engineer	(504) 862-2607	Whitney.J.Hickerson@usace.army.mil
Keith O'Cain	Supervisory Waterways Civil Engineer	(504) 862-2746	Keith.J.O'cain@usace.army.mil
Kim Tessitore	Waterways Civil Engineer	(504) 862-1795	Kim.L.Tessitore@usace.army.mil
Eric Salamone	Cost Engineer	(504) 862-1676	Benjamin.E.Salamone@usace.army.mil
Bich Quach	Geotechnical Engineer	(504) 862-1504	Bich.N.Quach@usace.army.mil
Richard Butler	Sr. Relocations Engineer	(504) 862-2999	Richard.A.Butler@usace.army.mil
Douglas Ferrell	Relocations Engineer	(504) 862-1115	Douglas.M.Ferrell@usace.army.mil
Patrick Smith	Environmental Manager	(504) 862-1583	Patrick.W.Smith@usace.army.mil
Noah Fulmer	Cultural Resources/Tribal	(504) 862-1983	Noah.J.Fulmer@usace.army.mil
Joe Musso	HTRW	(504) 862-2280	Joseph.R.Musso@usace.army.mil
Andrew Perez	Recreation	(504) 862-1442	Andrew.R.Perez@usace.army.mil
Matthew Napolitano	Economics	(504) 862-2445	Matthew.P.Napolitano@usace.army.mil
Joey Marceaux	Senior Real Estate-Planning	(504) 862-1175	Huey.J.Marceaux@usace.army.mil
Todd Klock	Senior Real Estate-Acquisition	(504) 862-1920	Todd.M.Klock@usace.army.mil
Pamela Fischer	Real Estate	(504) 862-1157	Pamela.Fischer@usace.army.mil
Eileen Darby	Contracting	(504) 862-1996	Eileen.M.Darby@usace.army.mil
Ed Creef	Sr. Operations Environmental	(504) 862-2521	Edward.D.Creef@usace.army.mil
Jeffrey Corbino	Operations Environmental	(504) 862-1958	Jeffrey.M.Corbino@usace.army.mil
Robert Guichet	Construction	(504) 862-2726	Robert.L. Guichet@usace.army.mil
Karen Roselli	Office of Counsel – Policy	(504) 862-2137	Karen.E.Roselli@usace.army.mil
Sandra Sears	Office of Counsel – NEPA	(504) 862-1787	Sandra.L.Sears@usace.army.mil
Seth Bordelon	US Fish and Wildlife Service	(337) 291-3138	seth_bordelon@fws.gov
David Walters	US Fish and Wildlife Service	(337) 291-3122	david_walther@fws.gov
Twyla Cheatwood	NOAA Fisheries	(225) 389-0508	Twyla.Cheatwood@noaa.gov

**ATTACHMENT 1b: DISTRICT QUALITY CONTROL TEAM MEMBERS**

LCA BUDMAT Mississippi River Central Wetlands St. Bernard Parish, Louisiana DQC Review Team Members			
Name	Functional Area/Discipline	Phone	Email
Miguel Ramos	Cost Engineer	(504) 862-2617	Miguel.A.Ramos@usace.army.mil
Kelly Danton	Geo-tech	(504) 862-1031	Kelly.M.Lefort@usace.army.mil
Sara Turner	Civil Engineering	(504) 862-2402	Sara.J.Turner@usace.army.mil
Marsha Raus	Sr. Plan Formulator	(901) 544-3455	Marsha.L.Raus@usace.army.mil
Mark Lahare	Environmental Compliance	(504) 862-1344	Mark.H.Lahare@usace.army.mil
Erin Rowan	Real Estate	(504) 862-2183	Erin.C.Rowan@usace.army.mil
Mark Haab	Economics	(504) 862-2497	Mark.E.Haab@usace.army.mil
Steve Ayres	Hydraulics and Hydrology	(504) 862-2427	Steven.K.Ayres@usace.army.mil
Christopher Talbert	Relocations	(504) 862-1407	Christopher.J.Talbert@usace.army.mil

**ATTACHMENT 1c: AGENCY TECHNICAL REVIEW TEAM MEMBERS**

<b>LCA BUDMAT Mississippi River Central Wetlands St. Bernard Parish, Louisiana ATR Team Members (updated as necessary)</b>			
<b>Name</b>	<b>Functional Area/Discipline</b>	<b>Phone</b>	<b>Email</b>
Andrew MacInnes	ATR Lead/Planner/RTS	504-862-1062	Andrew.D.MacInnes@usace.army.mil

**REVIEW PLAN**

**LCA BUDMAT Program  
Mississippi River Central Wetlands Project  
St. Bernard Parish, Louisiana**

**ATTACHMENT 2: STATEMENTS OF COMPLETED REVIEW FOR DECISION DOCUMENTS**

**ATTACHMENT 2a: COMPLETION OF DISTRICT QUALITY CONTROL**

District Quality Control (DQC) Review has been completed for the <type of product> for <project name and location>. DQC was conducted as defined in the project Review Plan to comply with the requirements of EC 1165-2-217. During the DQC, 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. All comments resulting from the DQC have been resolved and closed in DrChecks<sup>sm</sup>.

SIGNATURE \_\_\_\_\_

Name

DQC Team Leader

Office Symbol/Company

\_\_\_\_\_  
Date

SIGNATURE \_\_\_\_\_

Name

Project Manager

Office Symbol

\_\_\_\_\_  
Date

**CERTIFICATION OF DISTRICT QUALITY CONTROL**

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 DQC of the project have been fully resolved.

SIGNATURE \_\_\_\_\_

Name

Chief, Engineering Division

Office Symbol

\_\_\_\_\_  
Date

SIGNATURE \_\_\_\_\_

Name

Chief, Planning Division

Office Symbol

\_\_\_\_\_  
Date



**ATTACHMENT 2b: 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 Review Plan to comply with the requirements of EC 1165-2-217. 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 closed in DrChecks<sup>sm</sup>.

SIGNATURE

Name

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager

Office Symbol

Date

SIGNATURE

Name

Architect Engineer Project Manager<sup>1</sup>

Company, location

Date

SIGNATURE

Name

Review Management Office Representative

Office Symbol

Date

**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

Chief, Engineering Division

Office Symbol

Date

SIGNATURE

Name

Chief, Planning Division

Office Symbol

Date

<sup>1</sup> Only needed if some portion of the ATR was contracted

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number