DEPARTMENT OF THE ARMY
US ARMY ENGINEER DIVISION, SOUTHWESTERN
1100 COMMERCE STREET, SUITE 831
DALLAS TX 75242-1317

REPLY TO
ATTENTION OF

CESWD-PDP

18 AUG 2014

MEMORANDUM FOR Commander, Little Rock District

SUBJECT: McClellan-Kerr Arkansas River Navigation System (MKARNS) Dredge Material Management Plan – Review Plan Approval

1. References:

a. Memorandum, CESWL-PE, 13 January 2014, subject: The McClellan-Kerr Arkansas River Navigation System (MKARNS) Dredge Material Management Plan – Request PCXIN Review and Approval of Review Plan, PWI #401503.

b. Memorandum, CESWD-PDP, 30 June 2014, subject: Request for Exclusion from Independent External Peer Review (IEPR) for McClellan-Kerr Arkansas River Navigation system (MKARNS) Dredge Material Management Plan.

c. Email, SWF@SWG, Diana Laird, 30 July 2014, subject: McClellan-Kerr Arkansas River Navigation System (MKARNS) DMMP – Exclusion from IEPR.

2. In accordance with EC 1165-2-214, Water Resources Policies and Authorities – Civil Works Review, I approve the enclosed Review Plan. IEPR is not required.

3. Please post the final approved Review Plan with a copy of this memorandum to the District's public internet website and provide the internet address to the Planning Center of Expertise for Inland Navigation Risk-Informed Economics Division (PCXIN-RED). Before posting to the District website, the names of USACE employees should be removed.

4. The SWD point of contact for this action is Ms. Margaret Johanning, CESWD-PDP, at 469-487-7045 or Margaret.Johanning@usace.army.mil.

Encl

DAVID C. HILL
Brigadier General, USA
Commanding

[redacted]

DECISION DOCUMENT REVIEW PLAN

McClellan-Kerr Arkansas River Navigation System (MKARNS)
Dredge Material Management Plan (DMMP)
2014

Little Rock District

MSC Approval Date: 18 August 2014
Last Revision Date: 1 August 2014

US Army Corps
of Engineers ®

DECISION DOCUMENT REVIEW PLAN

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the MKARNS DMMP. A DMMP is the required USACE document that ensures dredging activities are, "…performed in an environmentally acceptable manner, use sound engineering techniques, are economically warranted, and that sufficient confined disposal facilities are available for at least the next 20 years." The expectations for these plans are to address dredging needs, disposal capabilities, capacities of disposal areas, environmental compliance requirements, potential for beneficial usage of dredged material, and indicators of continued economic justification.

The MKARNS DMMP (Arkansas portion) was last updated in 1995. The existing 445-mile long McClellan-Kerr Arkansas River Navigation System consists of 18 locks and dams and is located in Oklahoma and Arkansas. The main study area for this project starts at river mile 308.6 (the Little Rock District boundary) of the MKARNS in Arkansas and ends at river mile 0, which is the junction with the Mississippi River. A DMMP for the Oklahoma portion of the MKARNS was completed by the Tulsa District in conjunction with the Arkansas River Navigation Study Feasibility Report, dated August 2005. Recent coordination with Tulsa District indicates no change for dredge material management on the Oklahoma portion of the MKARNS; Little Rock District will incorporate information from the 2005 SWT MKARNS DMMP, allowing for review and comment from Tulsa District as the study progresses.

During recent coordination and communication with local resource agencies (i.e. the U.S. Fish and Wildlife Service), it was brought to the attention of the Little Rock District that the two White River National Wildlife Refuge (WRNWR) disposal area sites may have reached capacity in holding dredge material for the MKARNS in this reach of the system. The dynamic nature of the system (i.e. several high water events have occurred since the last update of the MKARNS DMMP) and the location of the sites (i.e. not easily accessible) are the reasons for the uncertainty in capacity determination. It is an objective of the DMMP revision to determine adequate capacity at these two sites for this reach of the system along with the rest of the MKARNS.

In addition, the 2012 U.S. Fish and Wildlife Service (USFWS) Compatibility Report for the WRNWR identified a conflict between the mission of the USFWS and the Navigation mission of the Corps on the White River. It is an objective of the MKARNS DMMP to attempt to address the conflict of mission areas between the USFWS and the Corps since a portion of the MKARNS includes the White River. This review plan is a component of the MKARNS DMMP Project Management Plan (PMP), dated August 2013.

b. References

(1) Engineering Circular 1165-2-214, Water Resources Policies and Authorities, Civil Works Review, 15 December 2012
(2) EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2011
(3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
(4) ER 1105-2-100, Planning Guidance Notebook, Chapter 3 Corps Civil Works Missions, Section 3-2 Navigation, b. Specific Policies, (8) Dredge Material Management Plans.
(5) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007

(6) McClellan-Kerr Arkansas River Navigation System Dredge Material Management Plan Project Management Plan, August 2013.
(7) ER 1110-2-1302 Civil Works Cost Engineering, 15 September 2008
(8) ER 11-1-321 Army Programs Value Engineering, 28 February 2005

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 model certification/approval (per EC 1105-2-412).

This Review Plan will be reviewed by the PDT on a periodic basis to ensure consistency and to include current updates. The Review Plan will be approved by the Southwestern Division MSC. After approval, this Review Plan will be posted on the Little Rock District website at: http://www.swl.usace.army.mil/Missions/Planning/ApprovedProjectReviewPlan.aspx.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this review plan. Since the MKARNS is a shallow-draft navigation system, the RMO is the Planning Center of Expertise for Inland Navigation Risk-Informed Economics Division (PCXIN-RED) located in Huntington, West Virginia. The Southwestern Division (SWD) will coordinate and approve the review plan. Little Rock District will post the approved review plan on its public website. A copy of the review plan will also be shared within the Operations Community of Practice and a link provided to the PCXIN-RED.

(1) District Quality Control/Quality Assurance (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 accordance with the Quality Manual of the District and the home Major Subordinate Command (MSC).

(2) 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 US Army Corps of Engineers (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 a designated Review Management Organization (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 leader

of the ATR team shall be from outside the home district, but may be from within the home MSC.

(3) Independent External Peer Review (IEPR). 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 1165-2-214, 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 is generally for decision documents and Type II is generally for implementation products.

(a) 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 1165-2-214.

(b) 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.

(4) 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. Since this is also an Operations document, applicable Operations-specific guidance will also be reviewed for policy compliance. 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.

(5) Cost Engineering DX Review and Certification. All decision documents shall be coordinated with the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District.

Regional cost personnel that are pre-certified by the DX will conduct the cost estimate ATR. The DX will provide the Cost Engineering DX certification.

(6) Model Certification/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 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. The use of engineering models is also subject to DQC, ATR, and IEPR (if required).

Use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through the ATR process. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. If specific uncertified models are identified for repetitive use within a specific district or region, the appropriate PCX, MSC(s), and home District(s) will identify a unified approach to seek certification of these models.

3. STUDY INFORMATION

a. Decision Document. The MKARNS DMMP study will result in an updated MKARNS Dredge Material Management Plan, which will address dredging needs, disposal capabilities, capacities of disposal areas, environmental compliance requirements, potential for beneficial usage of dredged material, and indicators of continued economic justification. This document will be prepared in accordance with **ER 1105-2-100.** A DMMP is the required USACE document that ensures dredging activities are, "…performed in an environmentally acceptable manner, use sound engineering techniques, are economically warranted, and that sufficient confined disposal facilities are available for at least the next 20 years."

Currently an Environmental Assessment (EA) is anticipated. If agency and public scoping/coordination determine an EIS is required then the NEPA document will be changed to an EIS.

Per ER 1105-2-100, E-15. Dredge Material Management Plans h. Procedures for Existing Projects (f). Review and Approval:

Division Commanders shall ensure full technical review of Management Plan reports, and may approve Management plans except in those cases where one or more of the following conditions apply:

(1) Implementation of the Management Plan will require a non-recurring item of work or aggregate item of related work which qualifies as major maintenance as defined in the annual guidance of the program and budget request;

(2) Implementation of the Management Plan requires an adjustment to the District's funding targets (a Corps-wide Priority Incremental Request, CPIR) as defined in the annual guidance for preparation of the program and budget request;

(3) Implementation requires additional congressional authority.

Where one or more of the above conditions apply, the Division Commander will transmit the final report and associated NEPA documentation by concurring endorsement to HQUSACE, CECW-O for review and approval. Upon approval of the report, the Major Subordinate Commander shall prepare the draft Record of Decision following completion of the final NEPA review, and if required, shall file the final NEPA documentation.

b. Study/Project Description. The existing 445-mile long McClellan-Kerr Arkansas River Navigation System consists of 18 locks and dams and is located in Oklahoma and Arkansas. The main study area for this project starts at river mile 308.6 (the Little Rock District boundary) of the MKARNS in Arkansas and ends at river mile 0, which is the junction with the Mississippi River. A DMMP for the Oklahoma portion of the MKARNS was completed by the Tulsa District in conjunction with the Arkansas River Navigation Study Feasibility Report, dated August 2005. Recent coordination with Tulsa District indicates no change for dredge material management on the Oklahoma portion of the MKARNS; Little Rock District will incorporate information from the 2005 SWT MKARNS DMMP, allowing for review and comment from Tulsa District as the study progresses.

The end junction of the MKARNS includes portions of the Arkansas, White, and Mississippi Rivers, located in southeast Arkansas. A natural cutoff historically existed between the lower White River and the Arkansas River but was closed in the mid 1960's during the development of the MKARNS. Navigation traffic now moves through the MKARNS via a 10 mile reach of the White River from the Mississippi River after passing over or locking through Montgomery Point Lock and Dam. This navigation area is a part of the MKARNS and is included in the MKARNS DMMP revision.

The flows on the MKARNS are modified primarily by Corps operation of 11 reservoirs in Oklahoma. These reservoirs are: Keystone, Oologah, Pensacola, Hudson, Fort Gibson, Tenkiller Ferry, Eufaula, Kaw, Hulah, Copan, and Wister. Project purposes of these reservoirs include navigation, flood control (flood risk management), water supply, hydropower, water quality, recreation, and fish and wildlife habitat.

The MKARNS DMMP (Arkansas portion) was last updated in 1995. Due to the date of the last MKARNS DMMP and the recent determination that the two White River National Wildlife Refuge (WRNWR) disposal areas may no longer be adequate, a decision was made to update the MKARNS DMMP. In addition, the 2012 U.S. Fish and Wildlife Service (USFWS) Compatibility Report for the WRNWR identified a conflict between the mission of the USFWS and the Navigation mission of the Corps on the White River. It is an objective of the DMMP to attempt to address the conflict of mission areas between the USFWS and the Corps. This review plan is a component of the MKARNS DMMP Project Management Plan (PMP), dated August 2013.

The revising of the MKARNS DMMP is a joint effort between the MKARNS Project Offices; appropriate offices in the District Office; key Federal, State, and Local Agencies; NGO partners; stakeholders; and the public. When the updated plan is finalized, it will be coordinated through the Vertical team and a recommendation for approval and immediate use of the MKARNS DMMP will be made to the Southwestern Division Commander. All of these efforts will require extensive coordination and involvement between the parties listed above.

c. Factors Affecting the Scope and Level of Review.

The study analyses, while complex, are well within the scope that is typical for similar studies.

- EC 1165-2-214 requires Type I IEPR if the estimated cost of the proposed project is greater than $45 million, if there is significant threat to human life, if the Governor of the affected State requests it, or if the DCW or Chief of Engineers determines that the project study is controversial. MKARNS DMMP revision has an estimated project cost under $1M and there are currently no determined significant impacts or public controversy.

Challenges: The dynamic nature and conflict of missions with other resource agencies along the lower reaches of the MKARNS system will provide a challenge to the PDT. The District has completed an Ark-White Cut Off Feasibility Study Report (September 2000) for the area with a baseline of information; however, the study did not proceed forward into PED or Construction due to a conflict with other resource agencies (and the inability to capture ecosystem restoration benefits). There is currently momentum to move forward with a new study (Three Rivers Feasibility Study) that would enable capture of ecosystem restoration benefits. The PDT will coordinate closely with other District contacts during the DMMP revision process to ensure documentation will take place between this revision action and with the potential for the new feasibility study.

- Peer review: It is anticipated that the Governor of Arkansas will not request a peer review by independent experts.
- Controversial Issues: Potential controversial issues will be assessed throughout MKARNS DMMP revision process. It is anticipated there will be significant agency participation throughout this process, however controversial issues are not anticipated. There will be public participation, but controversial issues are not anticipated.
- Precedent-Setting Methods: Information presented in the MKARNS DMMP revision process will be based on standard methods for plan formulation, project operation, cost estimating, hydrology and hydraulics, economics and environmental assessment.

Cultural and Environmental: It is anticipated that the revision process will not have an adverse impact on cultural or environmental resources. The revision process is not anticipated to have an adverse impact upon critical habitat or any endangered species. Cultural and environmental aspects will be thoroughly and continuously assessed via the NEPA process during the revision of the MKARNS DMMP.

Interagency Coordination: It is anticipated the study will not have significant adverse impact to interagency interest. Agency coordination will take place throughout the study but particularly at the following points: (1) Scoping, (2) Draft MKARNS DMMP release, and (3) Final MKARNS DMMP release.

Redundancy, Resiliency, and/or Robustness: The revised MKARNS DMMP will aim to ensure good science, sound engineering, public health, safety, and welfare are incorporated into the plan. The need for redundancy, resiliency, and/or robustness will be continuously evaluated throughout the course of the study.

Consequently, the recommendation of the District, with SWD concurrence, is that the highest level of peer review be ATR. Requirement for a Type I and/or Type II IEPR is not anticipated at this time. An IEPR exclusion request has been submitted to HQUSACE.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC and ATR, similar to any products developed by USACE. No In-Kind products or analysis is anticipated as this effort is not cost-shared with a Non-Federal sponsor.

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 Little Rock District shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the SWD.

DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the MKARNS DMMP PMP, dated August 2013, for the study (to which this Review Plan will ultimately be appended). It is managed in the District and may be conducted by in-house staff as long as the reviewers are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. The PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before the approval by the District Commander. In addition, non-PDT members and/or supervisory staff will conduct a review for major draft and final products.

The PDT may coordinate with the Southwestern Division Regional Planning and Environmental Center (RPEC) to resource DQC review for plan formulation, economics or environmental disciplines, if needed. The Project Manager will work with staff from the RPEC to identify the needs for DQC review. Other functional chiefs should assist in identifying DQC members within their disciplines when the District requires such resources to conduct and complete reviews.

The DQC report and all supporting documentation (i.e. if the Dr. Checks reporting system is used during DQC) will be provided to the ATR team upon initiation of the ATR review.

a. Products to Undergo DQC.

(1) Draft Report including NEPA and supporting documentation
(2) Final Report and documentation

b. Required DQC Expertise.

DQC Team Members/Disciplines	Expertise Required
Planning	The Planning reviewer should be a senior water resources planner with experience in Operations and navigation.
Economics	The reviewer shall have extensive knowledge of the principles and guidelines of economic analysis as it relates to inland water navigation systems and impacts to the regional economy.
Hydraulic and Hydrologic Engineering	An engineer familiar with inland navigation systems. The engineer should be familiar with how the information is used by the economists and the biologists in their assessments.
Civil Engineering	The professional engineers shall have the experience to estimate quantities for planning purposes. They shall be familiar with both the planning process and inland navigation system.
Environmental	The reviewer shall be an expert in the NEPA process. The reviewer shall be familiar with the impacts to inland navigation systems.
Cost Engineering	The cost engineer shall be an expert in MII and cost estimating practices for inland navigation studies.
Real Estate	The Real Estate reviewer shall have experience with inland navigation systems, and current real estate policies.
Office of Counsel	Counsel reviewer(s) shall have experience with inland navigation laws and policies.
Operations—Navigation	The reviewer shall have extensive knowledge with inland navigation/dredge material management regulations and policies.
GIS	The GIS reviewer shall have knowledge and experience with current software used and be familiar with inland navigation systems.

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 outside the home MSC.

a. Products to Undergo ATR.

(1) Draft Report including NEPA and supporting documentation
(2) Final Report and documentation

b. Required ATR Team Expertise.

The expertise and disciplines represented on the ATR team reflect the significant disciplines involved in the planning effort. The ATR team consists of 6-8 team members selected from the respective Community of Practice approved list of ATR reviewers when available and must be outside of the District as determined by the RMO in coordination and cooperation with the PDT, vertical team, and the PCX in the following functional areas:

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Planning	The Planning reviewer should be a senior water resources planner with experience in inland navigation systems.
Economics	The reviewer shall have extensive knowledge of the principles and guidelines of economic analysis as it relates to models for inland navigation systems within the Corps of Engineers.
Hydraulic and Hydrologic Engineering	An engineer familiar with inland navigation systems. The engineer should be familiar with how the information is used by the economists and the biologists in their assessments.
Environmental	The reviewer shall be an expert in the NEPA process. The reviewer shall be familiar with the impacts to inland navigation systems.
Cost Engineering/Civil Engineer	The cost engineer shall be an expert in MII and a certified cost engineer. They shall be familiar with both the planning and inland navigation systems. Review will be coordinated with the Cost Engineering Mandatory Center for Expertise (MCX).
Real Estate	The Real Estate reviewer shall have experience with inland navigation systems, current real estate policies and must be selected from the national approved list of Real Estate ATR reviewers.
Office of Counsel	Counsel reviewer(s) shall have experience with inland navigation laws and policies.
Operations—Navigation	The reviewer shall have extensive knowledge with inland navigation/dredge material management regulations and policies.
GIS	The GIS reviewer shall have knowledge and experience with current software used and be familiar with inland navigation systems.

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 addressing incomplete or unclear information, comments 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, draft report, and final report.

COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will provide the Cost Engineering DX certification. The RMO will coordinate with the Cost Engineering DX on the selection of the cost engineering ATR team member.

6. **INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

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 1165-2-214, 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. 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.

Decision on IEPR. An IEPR exclusion was approved through HQUSACE.

(a) This project does not contain any of the mandatory triggers described in EC 1165-2-214, 11.d. (1).
    (i) There is no public safety component of the project;
    (ii) The total project cost is estimated at about $1M well below the threshold of $45M. We do not expect the governor to request IEPR;
    (iii) We do not expect the DCW or the Chief of Engineers to determine this project is controversial due to significant public dispute over the size, nature, or effects of the project or the economic or environmental costs or benefits of the project.

(b) This project does not contain any of the discretionary triggers described in EC 1165-2-214, 11.d. (2).
    (i) While we expect a high level of agency interest and inter-agency involvement during the study, we do not expect a request to conduct IEPR from a head of a Federal or state agency charged with reviewing the project.

(c) This project is eligible for exclusion from IEPR because:
    (i) The MKARNS DMMP does not require an Environmental Impact Statement;
    (ii) It is not controversial;
    (iii) Has no more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources;
    (iv) Has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures; and
    (v) Has, before implementation of mitigation measures, no more than a negligible adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) or the critical habitat of such species designated under such Act.

(d) Per EC 1165-2-214, when a decision document does not trigger a mandatory Type I IEPR, a risk-informed recommendation will be developed. The process shall consider the consequences of non-performance on project economics, the environment, and social well-being (public safety and social justice), as well as indicate whether the product is likely to contain influential scientific information or be a highly influential scientific assessment, or involve other issues that provide a rationale for determining the appropriate level of review. Furthermore, the recommendation much make a case that the study is so limited in scope or impact that it would not significantly benefit from IEPR.

The Little Rock District has considered the criteria above in its recommendation to exclude this action from IEPR. With regard to impacts on the environment, a draft environmental assessment (EA) and finding on No Significant Impacts (FONSI) are being prepared in compliance with the National Environmental Policy Act (NEPA). If a FONSI is ultimately determined to be appropriate for signature by the District Commander, impacts to the environmental are, by definition, determined to be not significant. Accordingly, analysis of environmental impacts does not involve a large degree of uncertainty or high risk for underestimation. Health and safety would not be impacted through the recommended plan. Social justice considerations are being addressed through determination of low income eligibility determinations in accordance with Section 322 of WRSA 1990. Given these considerations, the risk of non-performance with regard to matters pertaining to social well-being would be anticipated as minimal.

This revision to an existing DMMP does not involve novel, untested, or influential scientific information or methods. The study analyses, while complex, are within the typical scope of similar studies. Methodology and required data and analyses are well-established in USACE guidance for such studies. It is not expected that the project would benefit from IEPR because the science and models used in the study have been used numerous times for similar studies in the Division and Nationwide.

Finally, a recommended plan would not significantly affect project operations in terms of flood risk reduction, dam safety, fish and wildlife, water quality, recreation or hydropower. Environmental impacts will be addressed in the draft EA/FONSI for the project.

The Little Rock District requests that the RMO and Division Commander endorse a request for exclusion from IEPR and forward a request to the Regional Integration Team (RIT) for

their endorsement and approval by the Director of Civil Works per guidance in EC 1165-2-412.

Type II IEPR, the Safety Assurance Review, are conducted on design and construction activities for any hurricane and storm risk management and flood risk management projects, as well as other projects where existing and potential hazards pose a significant threat to human life. An updated to an existing DMMP does not meet the criteria for Type II IEPR.

If at any time during the study the factors above change and it is determined IEPR is required, this Review Plan will be updated accordingly.

a. Products to Undergo Type I IEPR. Not-Applicable; IEPR exclusion approved.

b. Required Type I IEPR Panel Expertise. Not-Applicable; IEPR exclusion approved.

c. Documentation of Type I IEPR. Not-Applicable; IEPR exclusion approved.

d. IEPR Schedule. Not-Applicable. IEPR exclusion approved.

7. MODEL CERTIFICATION AND APPROVAL

a. Planning Models. At this time, no planning models are anticipated for use during this revision to the MKARNS DMMP. If models are deemed necessary during the course of the revision, appropriate measures will be taken to ensure the model is approved and certified for use.

b. Engineering Models. At this time, no engineering models are anticipated for use during this revision to the MKARNS DMMP. If models are deemed necessary during the course of the revision, appropriate measures will be taken to ensure the model is approved and certified for use.

8. REVIEW SCHEDULES AND COSTS

a. DQC Schedule. DQC will take place throughout the MKARNS DMMP revision process. At a minimum, this will include, but is not limited to, DQC of the draft MKARNS DMMP/draft EA (February/March 2015) and DQC of the final MKARNS DMMP/final EA (October/November 2015).

b. b. ATR Schedule and Cost. ATR will include the draft MKARNS DMMP/draft EA (March/April 2015) and DQC of the final MKARNS DMMP/final EA (December /January 2015-2016). Cost of the ATR for the draft MKARNS DMMP/draft EA is estimated to be between $25K and $30K. Cost of the ATR for the final MKARNS DMMP/final EA is estimated to be between $20K and $25K.

c. Type I IEPR Schedule and Cost. Not-Applicable. The District has requested an IEPR exclusion from HQUSACE for this revision to the existing MKARNS DMMP.

d. Model Certification/Approval Schedule and Cost. Use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through assistance of the RMO. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the approved model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. The selection and application

of the approved model and the input and output data is still the responsibility of the users and is subject to DQC and ATR.

e. **Cost Schedule Risk Analysis (CSRA).** In accordance with Engineering Circular Bulletin No.2007-17, dated September 2007, "Cost risk analysis methods will be used for the development of contingency for the Civil Works Total Project Cost Estimate. It is the process of identifying and measuring the cost and schedule impact of project uncertainties on the estimated total project cost. When considerable uncertainties are identified, cost risk analysis can establish the areas of high cost uncertainty and the probability that the estimated project cost will or will not be exceeded. This gives management an effective additional tool to assist in the decision making process associated with project planning and design." The guidance applies to all HQUSACE decision documents prepared for Congressional authorization and appropriation for any project where the total project cost exceeds $40 million.

   The MKARNS DMMP revision process is not expected to exceed the $40M threshold and a CRSA is not recommended though an abbreviated CRSA may be appropriate as determined by the Cost Engineering Directory of Expertise. If the total project cost increases to or exceeds $40M, then the appropriate guidance will be implemented.

f. **Value Engineering (VE) Study.** The MKARNS DMMP revision is estimated to cost $1M and therefore, a VE study is not required for the planning phase. This requirement will be revisited during the preconstruction engineering and design phase.

9. PUBLIC PARTICIPATION

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. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The DQC team will be provided copies of public and agency comments.

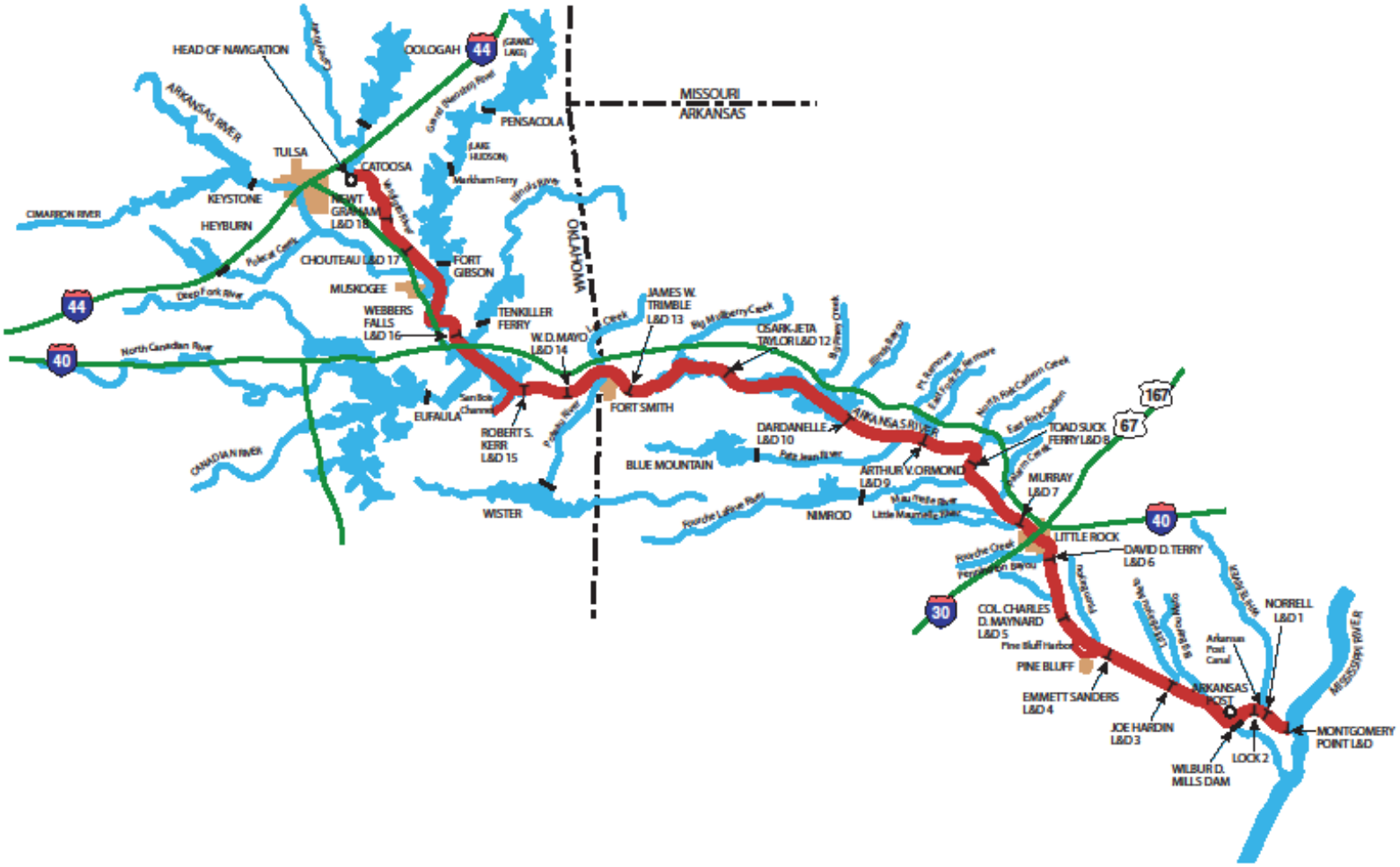
It is anticipated that public participation, including coordination with key agency, partner, and stakeholders, will take place specifically at 3 points during the MKARNS DMMP revision process; (1) at the start during Scoping for public input and comment; (2) during the draft MKARNS DMMP release; and (3) during the final MKARNS DMMP release.

10. REVIEW PLAN APPROVAL AND UPDATES

The SWD Commander is responsible for approving this review plan. The review plan is a living document and may change as the study progresses. Little Rock District is responsible for keeping the review plan up to date. Minor changes to the review plan since the last SWD Commander approval are documented in Attachment 3. Significant changes to the review plan (such as changes to the scope and/or level of review) should be re-approved by the SWD Commander following the process used for initially approving the plan. The latest version of the review plan, along with the Commander's approval memorandum, will be posted on Little Rock District's webpage.

11. REVIEW PLAN POINTS OF CONTACT

ATTACHMENT 1: PROJECT MAP



ATTACHMENT 2: TEAM ROSTERS

The MKARNS DMMP Revision Project Delivery Team (PDT) members are as follows:

A. Project Manager
B. Environmental/NEPA
C. Hydrology & Hydraulics
D. Engineering and Construction
E. Regulatory
F. Navigation and Maintenance Section
G. Real Estate
H. Economics
I. Office of Counsel,
J. Statistical Assistant

The MKARNS DMMP DQC members are as follows:

A. Plan Formulation
B. Environmental
C. H&H
D. E&C
E. Regulatory
F. Navigation
G. Real Estate
H. Economics

The MKARNS DMMP ATR team lead, RTS Plan Form, LRD

The recommended ATR members by discipline are listed on page 10. The actual team members will be identified closer to the scheduled ATR. The members will be identified from approved lists of reviewers by their functional discipline and the ATR list will be coordinated with the MSC since the information is not available at this time.

ATTACHMENT 3: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the *McClellan-Kerr Arkansas River Navigation System (MKARNS) Dredge Material Management Plan (DMMP)*. 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 4: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 5: ACRONYMS AND ABBREVIATIONS

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
CAP	Continuing Authorities Program	O&M	Operation and maintenance
CSDR	Coastal Storm Damage Reduction	OMB	Office and Management and Budget
DPR	Detailed Project Report	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DQC	District Quality Control/Quality Assurance	OEO	Outside Eligible Organization
DX	Directory of Expertise	OSE	Other Social Effects
EA	Environmental Assessment	PCX	Planning Center of Expertise
EC	Engineer Circular	PDT	Project Delivery Team
EIS	Environmental Impact Statement	PAC	Post Authorization Change
EO	Executive Order	PMP	Project Management Plan
ER	Ecosystem Restoration	PL	Public Law
FDR	Flood Damage Reduction	QMP	Quality Management Plan
FEMA	Federal Emergency Management Agency	QA	Quality Assurance
FRM	Flood Risk Management	QC	Quality Control
FSM	Feasibility Scoping Meeting	RED	Regional Economic Development
GRR	General Reevaluation Report	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IEPR	Independent External Peer Review	RTS	Regional Technical Specialist
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act